

# An Examination of Mobbing and Burnout of Residents



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## SUMMARY

**Aim:** Mobbing and burnout in human resources management are important topics in labor psychology. It is important to research the levels of mobbing and burnout of human resources in the health sector, primarily in doctors. Although there have been some studies on the mobbing and burnout of doctors, there has been a limited number of studies on the relationship between mobbing and burnout in the health sector. This study aims to examine the relationship between mobbing and burnout (emotional exhaustion, depersonalization, personal accomplishment) levels of resident doctors at a public university research and training hospital in Turkey and to investigate whether mobbing and burnout levels vary significantly according to gender, marital status, medical branch and age.

**Method:** This study was conducted on resident doctors at the Ondokuz Mayıs University Research and Training Hospital between 01.04.2009 and 30.06.2009. Legal permission for the study was received from the Rector's Office of Ondokuz Mayıs University. The Maslach Burnout Inventory for measuring burnout levels in doctors and the Leymann Inventory of Psychological Terror for measuring doctors' mobbing levels were the research instruments employed. Sampling was not used in this study. The aim was to administer the research instruments to all the residents (the universe of this study consisted of 510 assistant doctors). 52.94 % of residents responded to all of the questions in these instruments. In the data analysis, a t-test, ANOVA, regression analysis and descriptive statistics were used.

**Findings:** At the end of the analyses, it was found that the mean mobbing level of residents is 1.97; the mean emotional exhaustion level of residents is 2.97; the mean level of depersonalization is 2.95; and the mean level of personal accomplishment is 2.94. Mobbing and burnout levels of residents vary significantly in terms of medical branch.

**Conclusion:** This study indicated that there are relationships between mobbing, emotional exhaustion, depersonalization and personal accomplishment. Mobbing is a significant regressor for emotional exhaustion, depersonalization and personal accomplishment in this study.

**Key Words:** Mobbing, Burnout, Emotional Exhaustion, Depersonalization, Personal Accomplishment Physicians

## INTRODUCTION

A report by the International Labour Organization (ILO) points out that work-related psychological problems, such as violence, mobbing and burnout experienced at work, are a globally increasing problem (Chappell and DiMartino, 2006). People working in the health services (primarily doctors and nurses) are at greater risk than employees of other service sectors and occupations. Studies indicate that people working in the health sector have a 16-fold higher risk of being exposed to violence than

other service sectors and that nurses are under risk three times higher than that of other health service employees (Kingma, 2001). In healthcare workplaces, where public services are frequently delivered, the primary causes of increased risk of exposure to psychological violence and experiencing burnout in healthcare employees are intense work load and irregular and uncertain working conditions (EUROFOUND, 2007). Also, higher employment rates of women in unstable, uncertain, low-waged and low-status occupations increase their risk of exposure to violence compared to that of men (DiMartino, 2003).

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According to Maslach and Jackson, burnout has three components: emotional exhaustion, depersonalization and reduced personal accomplishment (Maslach and Jackson, 1986). Emotional exhaustion is a state of having no remaining energy to give to others and the depletion of emotional resources. Depersonalization is a negative perception of the self and others as a result of lack of interest in others, withdrawal, apathy and hostile attitudes. Reduced personal accomplishment is a feeling of inadequacy in meeting occupational responsibilities and working with service recipients (Gundersen, 2001; LeBourdais, 1989; Lee and Ashforth, 1990; Maslach et al., 2001).

It is reported that 30-40% of doctors are at a burnout level that affects their personal and occupational efficiency (Deckard et al., 1992). Attempts have been made, based on various hypotheses, to explain burnout levels in doctors. It is believed that this process starts during medical training when emotional needs are neglected and the technological aspects of health care are brought to the foreground or during the residency period during which stress and difficulties are encountered (Deckard et al., 1994). Some researchers claim that factors related to the delivery of health services are the reasons for this issue; whereas others argue that it arises from factors related to the personality of doctors (Ergin, 1993; Yaman and Ungan, 2002).

Unacceptable behavior encountered within the context of organizational relations is an important problem in the contemporary business world. These behaviors undermine the health of organizational relations and have destructive effects on members of the organization. The historical process concerned with these kinds of behavior, investigated under the umbrella concept of "mobbing", dates back to the 1960s. The term, first used in relation to workplace relations in the 1980's by Dr. Leymann refers to group hostility among adults within an organization (Davenport et al., 2003).

The concept of mobbing in workplace was defined for the first time by the German Labour Psychologist Heinz Leymann in the late 1980s. Leymann defined mobbing in workplaces as the systematic subjection, by one or more individuals (rarely exceeding four), of an individual (or, in rare cases, several individuals) to emotionally disturbing behavior every day over several months (Leymann, 1996).

A work environment dominated by derogatory and hostile attitudes, insistent criticism, exploitation of personnel, and even physical abuse and threats is a reality for many employees in both public and private organizations (Einarsen, 2000). The concept of mobbing is used to define various kinds of psychosocial problems related to work relations occurring in this environment (Kudelka and Kern, 2004). As a simple definition, mobbing is a process of systematically exerting pressure on an employee(s), ultimately compelling them to resign,

through the use of tactics such as inducing anxiety and fear and employing threats. Sometimes, this process may lead to suicide (Tınaz, 2006). Leymann who has conducted a number of studies on mobbing, defined mobbing activities under 45 types of behavior (Leymann, 1990; Leymann, 1996; Leymann and Gustafsson, 1996). They include rubrics such as; unhealthy communication, attacks on social relations, reputation, quality of life and work and activities that directly affect health (Fox and Stalworth, 2004). Mobbing in workplaces may lead to tragic psychological disorders in employees (on the individual level) even to the point of suicide. Psychological problems such as mobbing and burnout in a work environment, including in the health sector, have negative effects on the psychological health of employees (Naime and Namie, 2000; Namie, 2003). Mobbing in the workplace causes extreme stress, exclusion, fear, disorders of the digestive system, sleep disorders, depression and anxiety (Rogers and Kelloway, 1997; Schat and Kelloway, 2000; Schat and Kelloway, 2003). Mobbing in the workplace may lead to dereliction of duties and a decrease in performance (Barling et al., 2001; Budd et al., 1996), it may also increase feelings of job dissatisfaction, negative attitudes and behavior towards the workplace and, eventually, burnout (Budd et al., 1996). In the organizational context, mobbing in the workplace may lead to increased medical and psychiatric healthcare expenses and increased expenditure for the training of new employees hired to replace old employees (Lybecker and Sofield, 2000) and extra costs for the legal procedures of suits filed by employees (Yamada, 2000).

In hospitals, the duplicated command authority arising from complex organizational structures, experienced specifically by nurses and, sometimes, by resident doctors, is a good example of mobbing resulting from the organizational structure of the work (Karacaoğlu and Reyhanoğlu, 2006). Moreover, intense workload is an important factor in burnout in organizations such as hospitals. Direct involvement of the administration in the conflict, or denial of the conflict both in interpersonal and intergroup cases, might be a factor in mobbing and burnout. Leymann (1996) claims that personal factors are not the actual basis of mobbing; rather managerial inadequacies in terms of organizational policies and conflict management are the basic determinants. Nonetheless, situations in which both external factors and complex personal characteristics may be the cause of a manager's inadequacy should not be ignored, as individuals displaying a "tendency to complain continuously" among his/her general personality traits may possibly be suffering from a general anxiety disorder (Zapf, 1999).

A study by Aytaç (2008) indicates that there have been a limited number of studies done on mobbing in the workplace in Turkey and it has not yet been legally recognised. In Turkey, the health sector is one of those in which mobbing is experi-

enced very frequently. Some of the sector-related factors that cause mobbing to occur in the health sector are as follows (Çobanoğlu, 2005):

- Inadequate medical facilities in hospitals,
- Intense workload because of the large volume of patients,
- Insufficient salaries,
- A large number of bureaucratic barriers,
- Discrimination affecting academic career and promotion
- Intense working conditions and on-call hours leading to difficulties in family life
- Inability to fully carry out all the requirements of the job
- Discrimination against patients on the basis of status and economic conditions
- Discrimination on the basis of proximity to management and personal approach to the individual manager

It was reported that there have been a very limited number of studies done on the association between mobbing and burnout, specifically in the health sector in many countries, including the developed countries (Grunau, 2007). As mentioned above, burnout and mobbing may lead to economic, social and psychological problems for both employees and organizations. This study is on burnout and mobbing, which are important topics for the health sector, as well as other sectors, and investigates the mobbing and burnout levels of resident doctors.

**The Maslach Burnout Model:** In the present study, the “Maslach Burnout Model” is used to investigate the burnout levels of resident doctors. The most widely-accepted definition of burnout syndrome used today is the three-directional definition developed by Maslach and Jackson. According to this definition, the first component of burnout is emotional exhaustion, which refers to the feelings of frustration and tension that arise when a working person feels a reduced ability, in relation to the past, to commit him/herself to the job at hand, or embrace his/her responsibilities towards individuals in need of assistance. A frequent symptom is fear of going back to work the next day. The second component is depersonalization. Employees feel emotionally distant and have a negative, rigid and insensitive attitude towards colleagues, the people they serve or those who ask for their help. The third, and final component of burnout is reduced personal accomplishment. The person has a diminished sense of achievement, or even a perception of losing that which he/she already has (Cordes and Dougherty, 1993).

Today, in the health sector, it is important to consider burnout syndrome in healthcare employees, particularly doctors, both in terms of their own well-being and health, as well as the quality of services they provide. The speed of burnout-

prevalence in the workplace in the health sector is reported to vary between 25% and 60% (Shanafelt et al., 2002). Several studies on burnout in resident doctors report that the levels may be high during residency with the rates of prevalence of depersonalization and emotional exhaustion at approximately 70% (Yao and Wright, 2000).

The causes and progress of burnout in doctors in the health sector have not yet been fully explained (Gundersen, 2001; Maslach et al., 2001). An increase in number of branches of medical expertise, difficult training and increased expectations of doctors from management have been noted as factors contributing to burnout (Gundersen, 2001; Panagopoulou et al., 2006). Demographic and individual variables may be associated with burnout. For example, burnout is reported to be less frequent among males, young people and married people (Guatman, 2001; Martini et al., 2000). However, studies indicate that burnout is associated with occupational/organizational factors. For example, it was found that in hospitals, high levels of job satisfaction in doctors decrease the level of burnout. Also, it was emphasised that, as the negative labour-psychology syndromes of doctors such as mobbing and work-related stress increase, levels of burnout also increase (Gabbard, 1985; Renzi et al., 2005).

The indicators and findings pointing to the existence of a serious burnout problem in a healthcare institution are as much factors in the increase and transmission of burnout as its results. These are increased staff-turnover, a proliferation of complaints by patients and their relatives about care together with other findings implying a decrease in the quality of patient care, increased time of employees spent away from work, increased emotional, interpersonal and physical problems among employees, marked difficulties in communication with and adaptation to colleagues or other disciplines, insufficiently constructive criticisms, innovations or productive and creative efforts, the presence of a management that is hierarchical, totalitarian, bureaucratic, undemocratic and non-participatory, lack of objective reward systems, insecurity and uncertainty of employees concerning promotion and their professional future (Fawzy et al., 1991; Kaçmaz, 2005).

Mobbing: Leymann (1996:168) defined mobbing as “hostile and unethical communication which is directed in a systematic manner by one or more individuals, mainly toward one individual, who, due to mobbing, is pushed into a helpless and defenseless position”. Zapf (1999) suggested that mobbing behavior is enacted by a group rather than an individual, as an individual engaging in mobbing behaviors may organize other people against the victim and, if the management ignores the situation, the mobbing may achieve an organizational dimension. According to Davenport et al. (2003) who treat mobbing as a syndrome, it is “a malicious attempt to force a person out of the workplace through unjustified accusations, humiliation, general harassment, emotional abuse,

and/or terror". Mobbing is also perceived as abuse of power. Definitions of mobbing in the workplace emphasize the experience of negative situations, the persistent repetition of these events, the acceptance of mobbing by the victim, the manifestation of the negative effects of mobbing in the victim and a power imbalance between the parties (Rayner, 2002; Rayner et al., 1999). Two basic characteristics of these definitions are the evaluation of mobbing as repetitive and hostile actions (Einarsen, 1999).

In summary, mobbing is "a malicious attempt to force a person out of the workplace through unjustified accusations, humiliation, general harassment, emotional abuse, and/or terror". It means the systematic, coordinated, organization, frequently by means of psychological behaviors, of a hostile front against an individual by his/her managers, organization, superiors, colleagues or juniors. Because the organization ignores, overlooks or even provokes these activities, the victim feels helpless against many powerful people and mobbing occurs. The result is always harm, physical or psychological distress or disorder, social problems and most often dismissal from the workplace (Davenport et al., 2003).

On the other hand, examination of the literature reveals that various concepts have been employed in attempting to explain similar phenomena, indicating a visible problem of terminology. For example, mobbing is defined by Björkqvist et al. (1994) as "workplace harassment", as "workplace terror/violence" by Baron and Neuman (1996), as "tyranny" by Ashforth (1994) and as "violence" by Aguino and Byron (2002). Similarly, studies in Turkey have used concepts such as emotional harassment in the workplace, terror in the workplace, psychological harassment in the workplace, psychological violence in the workplace, or tyranny in the workplace instead of mobbing (Yavuz, 2007). The present study utilizes the term 'mobbing'.

Studies conducted on mobbing in Turkey have shown that employees in medicine, sales people, employees in banking and insurance, and technicians work in occupations at high risk of facing mobbing activities. The frequency of mobbing activities was found to vary between 25-90% (Bilgel et al., 2006; Erçetin et al., 2008; Yıldırım and Yıldırım, 2007).

Although people in many organizations suffer health problems due to mobbing activities, they are overlooked, not prevented and not ameliorated. However, many studies have indicated that victims of mobbing have various physical and psychological problems (Josipovic-Jelic et al., 2005; WHO, 2003; Balducci et al., 2009; Niedhammer et al., 2008; Niedhammer et al., 2006; Kivimaki et al., 2003; Leymann and Gustafsson, 1996). These people experience some changes in behavior and thought such as insomnia, loss of appetite, depression, distress, anxiety, passivity, crying, forgetfulness, touchiness, sudden rage, silence, loss of will to live, and

loss of joy. The effects of the first phase of the mobbing process on the victim are frequent crying without cause, sleep disorders, short-temperedness and concentration difficulties. In the second phase, symptoms such as high blood pressure, stomach problems, depression, reluctance to go to work, and being late to work are added to those of the first phase. In the third phase, the severity of depression increases and panic attacks and anxiety appear. Accidents and a tendency to commit suicide occur in the last phase of the mobbing process.

This study was conducted to investigate the burnout and mobbing levels of resident doctors and to analyze the association between burnout and mobbing. The rest of the article will comprise the method, results and discussion.

## METHOD

This study was a field study based on surveys.

### Aim

The aim was to analyze the mobbing and burnout levels of resident doctors working at the Ondokuz Mayıs University Research and Training Hospital. In the study, the aim was to determine whether the levels of mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment) among resident doctors differ significantly with regard to gender, marital status, branch of medical science or age. Analyzing the relationships between mobbing and burnout was among the aims of the study. Furthermore, the study also aimed to analyze the explicability of a) emotional exhaustion by depersonalization, personal accomplishment and mobbing; b) depersonalization by emotional exhaustion, personal accomplishment and mobbing; c) personal accomplishment by emotional exhaustion, depersonalization and mobbing.

### Hypotheses

The following hypotheses will be tested in accordance with the aims of the study:

- H1: There are significant differences in mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment) levels of resident doctors in relation to their **gender**
- H2: There are significant differences in mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment) levels of resident doctors in relation to their **medical branch**.
- H3: There are significant relationships among doctors' perceptions of mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment).
- H4: Depersonalization, personal accomplishment and

mobbing significantly determine/affect the emotional exhaustion levels of resident doctors.

- H5: Emotional exhaustion, personal accomplishment and mobbing significantly determine/affect the depersonalization levels of resident doctors.
- H6: Emotional exhaustion, depersonalization and mobbing significantly determine/affect the levels of personal accomplishment perception in resident doctors.

### Universe and Sample

The universe of the study consisted of resident doctors at the Ondokuz Mayıs University Research and Training Hospital. The study was conducted between 01.04.2009 and 30.06.2009. Legal approval for the administration of the survey to the resident doctors was obtained from the University Rectorate. According to information taken from the hospital management and the hospital's official web page, there was a of 510 resident doctors working in the hospital at the time of the study (<http://hastane.omu.edu.tr/?page=akademik-personel>). Thus, the study universe consisted of 510 resident doctors. During the study, no sampling was undertaken, rather the aim was to reach the research universe in its entirety. The consent of the hospital management was obtained prior to the administration of the data collection instruments to the doctors. Questionnaires were delivered to all of the resident doctors. At the end of the data collection process, 270 resident doctors had completed all the items without omissions and analyses of the study were conducted on the basis of the responses of 270 resident doctors. In the study, 52.94% of the universe was reached. In other words, the return rate of the questionnaires was about 53%.

### Instruments

**Maslach Burnout Inventory (MBI):** The inventory is composed of 22 questions, each with five choices. Its reliability and validity studies were conducted by Ergin (1993) in Turkey. It has three sub-categories; namely, emotional exhaustion, personal accomplishment and depersonalization (Maslach & Jackson, 1986). The emotional exhaustion and depersonalization scales have negative responses, whereas the personal accomplishment scale has positive responses. Scores are calculated separately for each sub-scale. Because there is no cut-off score for scores obtained from sub-scales, there is no distinction regarding the existence or absence of burnout.

The scale developed by Maslach and Jackson (1981) and used to assess the level of burnout in individuals is named the "Maslach Burnout Inventory-MBI". There are a total of 22 5-point Likert-type (1= not at all, 5= very often) questions: 9 assess emotional exhaustion, 8 assess the sense of reduced personal accomplishment and 5 assess depersonalization. The result is interpreted as follows: As scores on the emotional

exhaustion and depersonalization scales increase, and as the score on the sense of reduced personal accomplishment scale decreases, the level of burnout increases. Maslach and Jackson developed the scale with regard to occupations in service sector and they suggested that burnout is a problem specific to these occupations. Therefore, the inventory is frequently used in studies conducted on human resources in the health sector (Ari and Bal, 2008; Martinussen et al., 2007; Maslach and Jackson, 1981).

Although the sub-scales of the burnout inventory are related, they are different concepts. Therefore, it is not possible to obtain a total burnout score while making assessments using the inventory. Each sub-scale should be evaluated and interpreted separately. However, as the level of burnout increases, the scores on the emotional exhaustion and depersonalization sub-scales increase and the personal accomplishment score decreases (Maslach ve Jackson 1986).

In order to assess levels of burnout, the Maslach Burnout Inventory (MBI), developed by Maslach and for which the reliability and validity studies in Turkey were conducted by Çam (1991) and Ergin (1993, 1996), was used. The MB consists of three sub-scales; namely, emotional exhaustion, depersonalization and personal accomplishment, breaking down into 22 items. There are 9 items about emotional exhaustion, 5 items about depersonalization and 8 items about personal accomplishment. The items consist of 5 point Likert-scale (1- lowest level, 5- highest level) questions. Responses given to the items were collected for each resident doctor and individual scores were calculated for the three dimensions of burnout. Dimension scores were obtained through dividing the total score of a sub-scale by the number of questions on the given sub-scale. On the emotional exhaustion and depersonalization sub-scales, high scores imply high level of burnout; whereas on the personal accomplishment sub-scale, low scores imply a high level of burnout. Reliability coefficients of each sub-scale of the scale developed by Maslach and Jackson were found to be .88 for emotional exhaustion, .83 for personal accomplishment and .72 for depersonalization (Maslach et al., 2001). The Turkish version of MBI was evaluated by Çam. Reliability coefficients obtained on the basis of scores from a sample composed of 276 nurses were .89 for emotional exhaustion; .71 for depersonalization and .72 for personal accomplishment. Reliability coefficients after Spearman-Brown correction of correlation coefficients obtained by split-half method were .84 for emotional exhaustion; .78 for depersonalization and .72 for personal accomplishment (Çam, 1991). In this study, the internal consistency coefficients (Cronbach Alpha) were .83 for emotional exhaustion; .76 for depersonalization and .79 for personal accomplishment. Coefficients higher than .70 are thought to be a significant indicator of reliability (Hair et al., 1998).

**Leymann Inventory of Psychological Terror:** In this study,

the scale used to evaluate the level of mobbing was the Inventory of Psychological Terror developed by Prof. Heinz Leymann in 1993. The original version of the scale is in German and it was translated into Turkish by Osman Cem Öneroy in 2003 and published in a book titled “Mobbing: İşyerinde Duygusal Taciz (Mobbing: Emotional Abuse in the American Workplace by Davenport et al., 1999) This study used the Leymann Inventory of Psychological Terror because it is the most widely used scale on mobbing and is suitable to assess levels of mobbing in doctors. The scale is also known as Leymann’s Typology.

According to Heinz Leymann’s typology, there are 45 mobbing behaviors and, depending on the nature of the behavior, they fall into five groups; namely, inhibition of self-expression and communication, attacks on social relationships, attacks on reputation, attacks on quality of life and occupational position, and direct attacks on the person’s health. The scale is a 5 point Likert-scale (1- lowest level, 5- highest level). Individual mobbing scores are calculated by adding the responses given to the items on the scale and dividing by 45, the total number of items, for each resident doctor.

Leymann described 45 different mobbing behaviors classified in five main groups. The five main classifications are:

- Prevention of self-expression and communication: The victim’s opportunities for self-expression and development are restricted by superiors. For example, the victim’s speech is interrupted, he/she is yelled at or scolded, his/her work is constantly criticized etc.
- Isolation from social relationships: People ostracize the victim, they do not talk with him/her, he/she is treated as invisible.
- Attacks on reputation: People talk badly behind the victim’s back, unfounded rumors are circulated, the victim is ridiculed and sexual innuendos are made etc.
- Attacks on the quality of life and occupational position: The victim is not given any special tasks or assignments are taken back, meaningless jobs are given to carry out, constant reassigning of tasks and creating general damage incurring financial costs for the victim etc.
- Direct attacks on health: Forcing the victim to carry out physically difficult tasks, threats of physical violence, physical abuse and sexual harassment etc.

In this study, the reliability (internal consistency) coefficient (Cronbach Alpha) of the Leymann Inventory of Psychological Terror scale was found to be .91. Coefficients higher than .70 are considered a significant indicator of reliability (Hair et al., 1998).

## Data Analyses

The Lilliefors test and Kolmogorov-Smirnov test were used to see whether the mean scores of the scales fit normal distribution patterns. The T-test and ANOVA were used to compare the mean scores of various groups. Correlation and multiple regression were conducted to explain the association between burnout and mobbing. The data was analyzed using an SPSS 15.0 package program.

## RESULTS

In this section, the basic findings and results of the study will be explained together with tables.

**Table 1.** Some Characteristics of Residents

Characteristic	Number	Ratio(%)
Sex		
Female	92	34.07
Male	178	65.93
Medical Branch		
Basic Medicine	16	5.92
Internal Medicine	156	57.77
Surgical Medicine	98	36.31
Age		
≤ 28 Years	142	52.92
28 > Years	128	47.08
Marital Status		
Single	146	54.07
Married	124	45.93
Duration of Working at the Hospital		
≤ 2 Years	147	54.44
2 > Years	123	45.56

Table 1 shows the distributions of resident doctors in the study according to several of their characteristics. It can be seen that 65.93% of 270 resident doctors are males. The great majority of the participants (57.77%) are residents in the branch of internal medicine. The mean age was found to be 30. Furthermore, 54.44% of the doctors had been working at the hospital for 2 years or less.

**Table 2.** Descriptive Statistics for Perceptions of Mobbing and Burnout (Emotional Exhaustion, Depersonalization, Personal Accomplishment) (n=270)

Mobbing / Burnout	Mean	Standard Deviation	Range	Minimum	Maximum
Mobbing Perception	1.87	0.66	3.89	1.00	4.89
<b>Burnout Perceptions</b>					
<i>Emotional Exhaustion</i>	2.99	0.71	3.67	1.33	5.00
<i>Depersonalization</i>	2.95	0.77	4.00	1.00	5.00
<i>Personal Accomplishment</i>	2.94	0.66	3.63	1.00	4.63

**Table 3.** Comparison of Mobbing and Burnout Perceptions (Emotional Exhaustion, Depersonalization, Personal Accomplishment) in terms of Gender (n=270)

Mobbing / Burnout		Gender				t	p
		Female (n=92)		Male (n=178)			
		Mean	Standard Deviation	Mean	Standard Deviation		
Mobbing Perception		1.90	0.59	1.86	0.70	0.385	0.70
<b>Burnout Perceptions</b>	<i>Emotional Exhaustion</i>	2.91	0.59	3.03	0.76	-1.332	0.18
	<i>Depersonalization</i>	2.81	0.72	3.02	0.79	-2.166	0.03*
	<i>Personal Accomplishment</i>	3.06	0.60	2.88	0.68	-2.083	0.03*

**Table 4.** Comparisons of Mobbing and Burnout (Emotional Exhaustion, Depersonalization, Personal Accomplishment) Perceptions On The Basis Of Medical Branch (N=270)

Mobbing / Burnout		Medical Branches						F	p
		Basic Medicine (n=16)		Internal Medicine (n=156)		Surgical Medicine (n=98)			
		Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation		
Mobbing Perception		1.70	0.49	1.75	0.58	2.10	0.74	9.469	<b>0.001*</b>
<b>Burnout Perceptions</b>	<i>Emotional Exhaustion</i>	2.25	0.51	2.97	0.58	3.15	0.84	12.148	<b>0.001*</b>
	<i>Depersonalization</i>	2.17	0.50	2.87	0.65	3.20	0.87	15.488	<b>0.001*</b>
	<i>Personal Accomplishment</i>	3.65	0.40	3.01	0.54	2.72	0.75	17.063	<b>0.001*</b>

Table 2 indicates the mean levels, standard deviations, minimum and maximum values and ranges of mobbing and burnout (emotional exhaustion, depersonalization, personal accomplishment) perceptions of participant residents. It indicates that the mean score of mobbing is lower than the mean score of burnout levels. The mean mobbing score of residents is 1.87 and may be considered as a low level. On the other hand, the mean burnout score is around 3 and it can be said it is a moderate level. Standard averages of mobbing and burnout scores range between .66 and .77.

Table 3 indicates the mean levels, standard deviation and comparisons of mobbing and burnout (emotional exhaustion, depersonalization, personal accomplishment) scores on the basis of gender. It can be seen that there is no significant gender difference in terms of mobbing perceptions among resident doctors ( $t=0.385$ ;  $p<0.05$ ). While there is no significant gender difference in terms of emotional exhaustion and personal accomplishment, there is a significant gender difference in terms of depersonalization ( $t=-2.166$ ;  $p<0.05$ ). As a result, it was found that hypothesis “H1: There are significant differences in mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment) levels of resident doctors with regard to **gender**” was rejected in the case of mobbing, emotional exhaustion and personal accomplishment but accepted in that of depersonalization.

Table 4 indicates the mean levels, standard deviation and comparisons of mobbing and burnout (emotional exhaustion, depersonalization, personal accomplishment) scores in terms of residents’ medical branch. It can be seen that mobbing perceptions ( $t=9.469$ ;  $p<0.05$ ), emotional exhaustion ( $t=12.148$ ;

$p<0.05$ ), depersonalization ( $t=15.488$ ;  $p<0.05$ ) and personal accomplishment ( $t=17.063$ ;  $p<0.05$ ) differ significantly according to the medical branch of residents. Thus, it was found that working in general practice, internal medicine or surgery affects the mobbing and burnout perceptions of resident doctors. As a result, the hypothesis “H2: There are significant differences in mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment) levels of resident doctors with regard to **medical branch.**” was accepted.

The Bonferroni test, which is one of the Post-hoc analytical tool, was conducted to examine which medical branch/branches produce these significant differences in the mobbing and burnout levels among resident doctors. Results indicated that significant differences in mobbing levels with regard to medical branch originated from residents in surgery; whereas differences in emotional exhaustion, depersonalization and personal accomplishment were found to originate from residents in general practice. The low number of resident doctors from general practice may have lead to these results.

Table 5 indicates the relationships among the perceptions of mobbing and burnout (emotional exhaustion, depersonalization, personal accomplishment). It can be seen that there are significant relationships between mobbing and burnout perceptions. There is a negative and significant relationship between personal accomplishment and mobbing ( $r=-0.345$ ;  $p<0.01$ ), personal accomplishment and emotional exhaustion ( $r=-0.712$ ;  $p<0.01$ ), and personal accomplishment and depersonalization ( $r=-0.677$ ;  $p<0.01$ ). Thus, as levels of mobbing, emotional exhaustion and depersonalization increase, the sense of personal accomplishment decreases; whereas, as levels of mobbing,

**Table 5.** Relationships between Mobbing and Burnout (Emotional Exhaustion, Depersonalization, Personal Accomplishment) Perceptions (n=270)

		Correlation	Emotional Exhaustion	Depersonalization	Personal Accomplishment	Mobbing
<b>Burnout Perceptions</b>	<i>Emotional Exhaustion</i>	Pearson "r"	1			
		p				
	<i>Depersonalization</i>	Pearson "r"	0.752(**)	1		
		p	0.001			
	<i>Personal Accomplishment</i>	Pearson "r"	- 0.712(**)	- 0.677(**)	1	
		p	0.001	0.000		
<b>Mobbing Perception</b>		Pearson "r"	0.505(**)	0.447(**)	- 0.345(**)	1
		p	0.001	0.000	0.001	

\*\*Correlation coefficient is significant at 0.01 (two-tailed)

**Table 6.** Summary of regression model on the effects of depersonalization, personal accomplishment and mobbing on emotional exhaustion

Model		<i>Unstandardized Coefficients</i>		Standardized Coefficients	t	p	VIF	R	R <sup>2</sup>	F	p	Durbin -Watson
		Beta	<i>Standard Error</i>									
1	(Constant)	2.601	0.26		9.865	<b>0.001*</b>		0.819 <sup>a</sup>	0.671	181.244	<b>0.001*</b>	1.900
	<b>Depersonalization</b>	0.390	0.04	0.423	8.420	<b>0.001*</b>	2.043					
	<b>Personal Accomplishment</b>	- 0.388	0.05	- 0.360	-7.521	<b>0.001*</b>	1.855					
	<b>Mobbing</b>	0.206	0.04	0.192	4.871	<b>0.001*</b>	1.255					

<sup>a</sup>Dependent Variable: Emotional Exhaustion

emotional exhaustion and depersonalization decrease, the sense of personal accomplishment increases. Analyses indicated positive and negative associations between mobbing, depersonalization and emotional exhaustion. Therefore, there are reciprocal increases or decreases between mobbing, depersonalization and emotional exhaustion. As a result, the hypothesis "H3: There are significant associations between mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment) perceptions of doctors." was accepted. Significant associations were found between the mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment) levels of resident doctors.

Table 6 summarizes the relationship between emotional exhaustion and mobbing, depersonalization and personal accomplishment according to the regression model. In this model, the level of emotional exhaustion was a dependent variable; whereas depersonalization and personal accomplishment were independent variables. Table 6 indicates a relationship coefficient of the model of .819 ( $r=0.819$ ). Mobbing, depersonalization and sense of personal accomplishment explain the total variance of 67.1% in doctors' emotional exhaustion levels ( $R^2 = 0.671$ ). A Durbin Watson coefficient lower than 2.5 and Variance Inflation Factor-VIF coefficients lower than 10 (Hair et al., 1998) show that there is no multicollinearity between independent variables.

The regression model is linear and it was found to be statistically significant ( $F=181.244$ ;  $p<0.01$ ). When Beta coefficient

of the regression model were examined, it was seen that levels of depersonalization, personal accomplishment and mobbing perceptions affect emotional exhaustion. While depersonalization and mobbing positively affect emotional exhaustion, personal accomplishment negatively affects emotional exhaustion. Furthermore, standardized Beta coefficients indicate that emotional exhaustion is mostly affected by depersonalization (Standardized Beta coefficient= 0.423;  $p<0.01$ ). Thus, this study found that mobbing, depersonalization and personal accomplishment are important determinants of emotional exhaustion. As a result, the hypothesis "H4: Depersonalization, personal accomplishment and mobbing significantly determine/affect the emotional exhaustion levels of resident doctors." was accepted.

Table 7 summarizes the relationship between depersonalization and mobbing, emotional exhaustion and personal accomplishment according to the regression model. In this model, the level of depersonalization was a dependent variable; whereas mobbing, emotional exhaustion and personal accomplishment were independent variables. Table 6 indicates a relationship coefficient of the model of .783 ( $r=0.783$ ). Mobbing, emotional exhaustion and sense of personal accomplishment explain the total variance of 61.3% in doctors' depersonalization levels ( $R^2 = 0.613$ ). A Durbin Watson coefficient lower than 2.5 and Variance Inflation Factors-VIF coefficients lower than 10 (Hair et al., 1998) show that there is no multicollinearity between independent variables.



**Table 7.** Summary of regression model on the effects of emotional exhaustion, personal accomplishment and mobbing on depersonalization

Model		Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	R	R <sup>2</sup>	F	p	Durbin-Watson
		Beta	Standard Error	Beta								
		1	(Constant)	2.126								
	<b>Personal Accomplishment</b>	-0.338	0.06	-0.290	-5.329	<b>0.001*</b>	2.032					
	<b>Mobbing</b>	0.112	0.05	0.096	2.172	<b>0.031*</b>	1.343					
	<b>Emotional Exhaustion</b>	0.540	0.06	0.498	8.420	<b>0.001*</b>	2.403					

**Table 8.** Summary of regression model on the effects of emotional exhaustion, depersonalization, and mobbing on personal accomplishment

Model		Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	R	R <sup>2</sup>	F	p	Durbin-Watson
		Beta	Standard Error	Beta								
		1	(Constant)	5.052								
	<b>Emotional Exhaustion</b>	-0.452	0.06	-0.487	-7.521	<b>0.001*</b>	2.510					
	<b>Depersonalization</b>	-0.285	0.05	-0.333	-5.329	<b>0.001*</b>	2.338					
	<b>Mobbing</b>	0.050	0.04	0.050	1.051	0.294	1.361					

<sup>a</sup>Dependent Variable: Personal Accomplishment

The regression model is linear and it was found to be statistically significant ( $F=140.722$ ;  $p<0.01$ ). When Beta coefficients of the regression model were examined, it was seen that levels of emotional exhaustion, personal accomplishment and mobbing perceptions affect depersonalization. While emotional exhaustion and mobbing positively affect emotional depersonalization, personal accomplishment negatively affects depersonalization. Furthermore, standardized Beta coefficients indicate that depersonalization is mostly affected by emotional exhaustion (Standardized Beta coefficient= 0.498;  $p<0.01$ ). Thus, this study found that mobbing, emotional exhaustion and personal accomplishment are important determinants of depersonalization. As a result, the hypothesis “H5: Emotional exhaustion, personal accomplishment and mobbing significantly determine/affect the depersonalization levels of resident doctors.” is accepted.

Table 8 summarizes the relationship between personal accomplishment and mobbing, emotional exhaustion and depersonalization according to the regression model. In this model, the level of personal accomplishment was a dependent variable; whereas mobbing, emotional exhaustion and depersonalization were independent variables. Table 8 indicates a relationship coefficient of the model of .745 ( $r=0.745$ ). Mobbing, emotional exhaustion and depersonalization explain the total variance of 55.5% in doctors’ personal accomplishment levels ( $R^2 = 0.555$ ). A Durbin Watson coefficient lower than 2.5 and Variance Inflation Factors-VIF coefficients lower than 10 (Hair et al., 1998) show that there is no multicollinearity between independent variables.

The regression model is linear and it was found to be statisti-

cally significant ( $F=110.763$ ;  $p<0.01$ ). When Beta coefficients of the regression model were examined, it was seen that emotional exhaustion and depersonalization affect personal accomplishment; whereas levels of mobbing perception do not affect personal accomplishment. It was found that emotional exhaustion and depersonalization negatively affect personal accomplishment. Furthermore, standardized Beta coefficients indicate that personal accomplishment is mostly affected by emotional exhaustion (Standardized Beta coefficient= -0.487;  $p<0.01$ ). Thus, this study found that emotional exhaustion and depersonalization are important determinants of personal accomplishment. As a result, the hypothesis “H6: Emotional exhaustion, depersonalization and mobbing significantly determine/affect the levels of personal accomplishment perceptions of resident doctors” was accepted for emotional exhaustion and depersonalization but rejected for mobbing.

## DISCUSSION

This study aimed to investigate the mobbing and burnout (emotional exhaustion, depersonalization and personal accomplishment) levels of resident doctors and the relationships among them. The study was conducted on resident doctors working in a public hospital in Turkey. Burnout levels were measured using the Maslach Burnout Inventory and mobbing levels were measured using the Leymann Inventory of Psychological Terror. Results indicated a mean mobbing level of 1.87 for resident doctors. Because 5 is the score for highest level, this mean may suggest a low level of mobbing. On the other hand, the mean burnout levels of residents were 2.99 for emotional exhaustion; 2.95 for depersonalization and 2.94

for personal accomplishment. Because 5 is the score for the highest level, this mean may suggest a moderate level of burnout for resident doctors. Results indicated a significant relationship between mobbing and emotional exhaustion, depersonalization and personal accomplishment. Moreover, regression analyses revealed that the mobbing levels of resident doctors determine emotional exhaustion, depersonalization and personal accomplishment to a large extent. These results reveal that mobbing activities towards residents should be diminished in order to decrease the burnout levels of resident doctors in the hospital. Mobbing has many negative occupational consequences, primarily stress and burnout.

Ergin (1993) reported that gender is an important burnout variable; although depersonalization does not differ in terms of gender, females experience greater emotional exhaustion and males experience a sharper decrease in the sense of personal accomplishment. In a study on young doctors by Schweitzer (1994), there was no difference observed between the genders. The general view is that, because of their gender roles, women consider and care about other people more and they have higher levels of emotional exhaustion (Schweitzer, 1994). Yaman and Urgan (2002) conducted a study on the burnout perceptions of resident doctors from family medicine and they did not find significant gender differences with regard to the three burnout dimensions. However, this study indicated differences between the genders only with regard to depersonalization. The study on the relationship between mobbing and burnout by Grunau (2007) showed that mobbing does not differ according to gender (Grunau, 2007). The present study showed that mobbing levels do not display significant gender differences. While some studies show that age and working years are not important determinants for burnout (Kirwan and Armstrong, 1995; Goldberg et al., 1996), other studies indicate significant relationships between individual characteristics such as age and marital status, and emotional exhaustion in particular (Ramires et al., 1996). In a study conducted on 135 resident doctors, Erol et al. (2007) examined the relationship between burnout levels in doctors and depression, and job satisfaction. Results indicated that depersonalization levels of residents show significant difference in the internal and surgical branches (Erol et al., 2007). In this study, it was also found that the medical branch of the resident doctors had a significant effect on the level of burnout.

Grunau (2007) found significant relationships between the mobbing and burnout dimensions. Grunau (2007) indicated that the level of mobbing explains the 25% total variance in burnout dimensions. Relationships between the dimensions of burnout have been indicated recently by many researchers. While there is a positive association between emotional exhaustion and depersonalization; there is a negative association between personal accomplishment and emotional exhaustion, and depersonalization. Similar findings have been reported in

several other studies. Moreover, there are studies in the literature indicating positive relationships between mobbing and emotional exhaustion, depersonalization and a sense of reduced personal accomplishment (Borritz et al., 2005; Borritz et al., 2006a; Borritz et al., 2006b; Bukspan, 2004; Demirel and Yoldaş, 2008; Zapft, 1999; Zapf and Gross, 2001). Our study also found significant relationships between burnout perceptions and mobbing. In this sense, in attempts to decrease the burnout and mobbing perceptions of employees, primarily those of doctors working at hospitals, it is important to consider these significant relationships between burnout and mobbing perceptions in doctors. It is vital to consider labour psychology issues such as burnout and mobbing that cause psychological and psychiatric problems in employees in the health sector in Turkey.

These findings cannot be generalized to all the doctors in the hospital or to resident doctors working in other public or private university hospitals. Conducting large scale studies on topics such as mobbing, burnout, job satisfaction, stress, and the job performance, primarily of residents and all doctors working for the Ministry of Health, university hospitals and other health organizations, both contributes to the literature and helps with the efficient utilization of human resources in the health sector. This study focused only on resident doctors. In the future, it may be possible to produce national averages for the burnout and mobbing levels of all occupational groups within the health sector.

As a result, mobbing and burnout is among the frequent and severe health and security risks for which preventive measures must be taken for health employees. It is important to have an awareness of this problem in order for management in workplaces and, where necessary, employees to make appropriate preparations and implement preventative measures. It is important to recognize and define this recently-named risk and to be informed regarding the economic and personal consequences at the individual, organizational and social levels (Çöl, 2008).

Because the study was conducted on resident doctors working at a university hospital, the results cannot be generalized to all the doctors in the hospital. Furthermore, it is not possible to generalize the findings of the study to resident doctors working in other public and private university hospitals in Turkey.

Because the basis of the data consisted of the perceptions of respondents, the mobbing and burnout levels of residents were assessed subjectively and this is another limitation of the study. Moreover, the Hawthorne effect may have occurred in that respondents were aware of the study. In order to minimize such effects, respondents were anonymous and participants were informed that the results of the study would not be used for professional evaluations.

The scales used to assess mobbing and burnout levels in re-

sident doctors in this study are widely used, internationally accepted scales with high validity and reliability scores. Therefore, these scales are assumed to be tools suitable to the aims of the study.

To sum up, this study is considered important because it examined the relationships between mobbing and dimensions of burnout, namely emotional exhaustion, depersonalization and personal accomplishment in the health sector; their relationships according to variables such as gender, medical

branch, age and marital status and it found significant relationships. Moreover, the present study is believed to constitute an encouragement for the large scale investigation of there-relationships between mobbing and burnout both in the health and other sectors and, in this way, further studies will contribute to removing the pressure both on health employees and those from other sectors, to increase self-confidence and work efficiency and to decrease the injustices to which these employees are exposed.

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