Development of Mobbing Questionnaire for Educators in Turkey

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The aim of this study was to develop a valid and reliable measurement tool for mobbing among educators. The sub-scales include aggressive acts that can trigger mobbing, causes of mobbing, and coping strategies against mobbing. The sample for the study were teachers (n=596) and school administrators (n=381) from public elementary schools, and teachers (n=593) and school administrators (n=272) from private elementary schools. Data was gathered using the 'mobbing questionnaire' that was specifically developed in order to determine factor structure of the scale by applying exploratory factor analysis and confirmatory factor analysis. For reliability of the scale, Cronbach Alfa coefficients of the sub-scales were calculated. Results reveal that the mobbing scale is valid and reliable. The analysis of its application provides empirical insights about how educators can be mobbed in the Turkish educational system. The results indicate that female educators were mobbed more than their male counterparts.

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INTRODUCTION

Mobbing at work occurs when negative and hostile behaviour pushes the receiver into a helpless and defenceless position. Mobbing may take the form of open verbal or physical attacks or the subtle form of social isolation of the victim in the workplace (Leymann, 1996; Zapf and Einarsen, 2001). The term 'mobbing' or psychological terror was first introduced by Leymann (1996) and defined as a severe threat to health and safety in workplaces. Mobbing has been identified as harassing someone by hostile and unethical communication and psychologically terrorising them at work. Over the years, mobbing has been recognised as a real, measurable kind of harm and a destroyer of health in the workplace by specialists in occupational health, managers, union leaders and public all across Europe (Davenport, Schwartz and Elliott, 2003). With increasing recognition of mobbing across the world, researchers have shown the rigid (and even lethal) effects of stress on physical and mental health. Studies have been conducted to identify mobbing in the workplace, especially in Scandinavian countries like Sweden (Leymann, 1996) and Norway (Einarsen and Skogstad, 1996), and Germany (Zapf,

1999; Zapf and Einarsen, 2001). In fact, it was Adams who tried to gain public awareness for mobbing at work through a TV programme, 'Bullying at Workplace' in England. Later, the Adams Foundation was set up to fight mobbing at the workplace in 1997 (Davenport, Schwartz and Elliott, 2003).

Zapf (1999) studied resources of mobbing and claimed multiple causes of mobbing in organisations. Besides, attempts have been made to identify risk sectors for the prevalence of mobbing. Hubert and Veldhoven (2001) tried to find sectors prone to aggressive behaviours that can be termed mobbing. They found out that people working in the education, industry and service sectors were more prone to mobbing at work. Dick and Wagner (2001) described aggressive behaviours of school principals towards teachers. In addition, Hoel, Faragher and Cooper (2004) described undesirable behaviours that teachers are subjected to like isolation, personal abuse and rumours.

Mobbing can happen by colleagues, supervisors or sometimes subordinates. Looking at the theoretical evidence, mobbing seems to contain at least four phases: (i) victim is subjected to aggressive behaviour that is difficult to pinpoint due to it being very indirect, (ii) aggressive behaviours become direct, (iii) victim is clearly isolated and humiliated in public, and (iv) probability of physical and psychological violence that affects the victim mentally and physically. The victim is then seen as a problem by the organisation (Einersan, 1999; Leymann, 1996; Resch and Schubinski, 1996).

Leymann (1996) introduced a typology that is sub-divided into five categories, and includes 45 intimidating behaviours of mobbing: (i) effects on the target's possibilities to communicate adequately, (ii) effects on the target's possibilities to maintain social contacts, (iii) effects on the target's possibilities to maintain their personal reputation, (iv) effects on the target's occupational situation, and (v) effects on the physical health of the target. Zapf Knorz and Kulla (1996) further developed these into seven categories: (i) work-related behaviours, (ii) social isolation, (iii) personal attacks, (iv) physical attacks, (v) attitudinal attacks, (vi) private attacks, and (vii) rumours. These categories point out to similar behaviours, except for some differences.

Since mobbing is a complex interpersonal phenomenon, there is not just one reason why it occurs in organisations. In fact, reasons for mobbing are generally questioned in literature. While Leymann and Gustafsson (1996) could not find any evidence that personal features are the main reason for mobbing, some authors (Crawford, 1997; Rayner, 1997; Vartia, 1996;

Zapf, 1999) claim that personality is the main reason. Furthermore, discussions around the reasons for mobbing have been progressing with authors like Leymann (1996), Vartia (1996) and Zapf (1999). Liefooghe and Davey (2001) argue that multiple causes of mobbing have to be taken into consideration. To summarise, it should be understood that mobbing can be caused by more than one factor simultaneously.

On the other hand, a potential cause for mobbing might be the result of mobbing at the same time. Besides, a particular cause of mobbing in one organisation might not trigger mobbing in another organisation; even a potential cause of mobbing might be equated with guilt in another organisation. So, deciding the potential causes of mobbing is difficult, and the identification of a cause of mobbing is sometimes a question of interpretation (Zapf, 1999). There can be interpretation problems in the case of viewpoints for causes of mobbing that is, a potential cause of mobbing may turn into a result of mobbing according to different viewpoints or types of organisations. Four different viewpoints for causes of mobbing are available. Some authors (Einarsen, 1994; Leymann, 1996; Vartia, 1996; Zapf and Osterwalder, 1998, cited in Zapf, 1999) claim that 'organisational causes' can trigger mobbing, while other clinical physicians argue that 'features of target' 'features of perpetrators' or 'features of social system or interactions' could be the the main reasons for mobbing (Zapf, 1999). While structure, climate of organisation and management style can be listed as organisational causes, either the victim's or the perpetrator's personal qualifications can be personal causes of mobbing.

There are three ways to cope with mobbing: (i) defining a clear boundary for perpetrators, (ii) personal stabilisation for regeneration that is, time out and psychotherapy, and (iii) changes in the work situation by the intervention of a third party. The last one is offered for senior managers. Although some mobbing victims have reported to have successfully coped with their case, nobody was able to achieve this without external help (Zapf and Gross, 2001). Niedl (1996) used the Exit, Voice, Loyalty Neglect (EVLN) model to analyse the effects of mobbing on victims. The EVLN model includes four reactions — exit, voice, loyalty or neglect. These are also categorised into active and passive coping strategies. According to the model, when people are dissatisfied at work they can focus their attention on non-work interests (passive problem-solving, neglect). They may try to improve their situation through voice (active problem-solving, voice). Another possibility is to passively support the

organisation with loyalty (passive problem-solving, loyalty). Finally, they may quit their job (active problem-solving, exit) (Zapf and Gross, 2001).

Different organisations take preventive measures against mobbing. The International Labor Organisation (ILO) published a report on 'Vandalism at Workplace' in 1998 (Davenport and others, 2003). Besides, mobbing was also part of the report jointly published by ILO, ICN, WHO and PSI on workplace violence (ILO/ICN/WHO/PSI, 2002). Furthermore, there have been websites and books on mobbing — Bob Rosner's website and book *Working Wounded: Advice that Adds Insight to Injury* (2001) and Kenneth Westhues' book *Workplace Mobbing in Academe* (2004), which portrayed mobbing among academicians.

Mobbing occurs across cultures and occupations. Researchers have shown, in different ways, the rigid effects of mobbing on physical and mental health. Studies conducted to identify mobbing in the workplace in Scandinavian countries tried to find out different aspects of mobbing. Leymann (1996), Einarsen and Skodstad (1996), Zapf (1999) and Zapf and Cross (2001), and Zapf, et al (1999, 2001) are some who attempted this and have suggested methods to investigate mobbing. They offer different methods to analyse the nature of mobbing, its causes, sources of mobbing, relationship between mobbing and organisational structure, the results of mobbing for the victim, and sectors where mobbing can be seen.

Authors who researched mobbing have described and stressed it according to the different aspects that they intended to investigate. For example, Zapf and others (1996), Niedl (1996), and Einarsen (1996) studied the epidemic results of mobbing. Leymann (1996), Vartia (1996), and Einarsen (1999) examined mobbing as a phenomenon, while Rayner (1999) measured the ratio and frequency of mobbing. There is insufficient, comprehensive research to explain the cause of mobbing. Though available research comprises data which resulted from interviews, it was insufficient for a detailed analysis.

Due to insufficient research to explain mobbing as a phenomenon in Turkey, Ertürk (2005) researched acts of mobbing in schools and Aktop (2006) studied opinions and experiences of lecturers at Anadolu University. Aktop (2006) found meaningful relationship between age and mobbing and between the title of lecturers and mobbing in Anadolu University. Tuncel and Gökçe (2007) studied mobbing in soccer and found that soccer players were mobbed through verbal aggression by their managers and coaches in Turkey. Thus, there are good reasons to describe mobbing and

aggressive behaviours that cause mobbing, sources for mobbing and strategies that victims use to cope with mobbing among educators in Turkey.

The aim of this study was to develop a valid and reliable measurement tool to determine negative acts that can trigger mobbing, reasons for mobbing, and coping strategies that mobbing targets use to protect themselves against mobbing in private and public elementary schools in Turkey.

METHOD

Sample

A multi-phase sampling method was used. Since Turkey is composed of seven geographical regions (Mediterranean, Black Sea, Aegean, Marmara, Central Anatolian, East Anatolian, and South East Anatolian), the population was divided into seven groups. First, all provinces were sub-divided into three categories according to their economic conditions as developed, developing and underdeveloped in each region. Secondly, while a single province was chosen from each developed and developing regions, two were chosen from the underdeveloped ones because the number of the private schools in the underdeveloped groups were comparatively less. Consequently, four provinces were chosen from each region. The number of private schools was the distinctive feature of the sampling.

The population of the study consisted of 1,44,464 school administrators and 3,84,004 teachers from both public and private elementary schools in Turkey. The sample selected was 1,189 teachers (596 from public schools and 593 from private schools) and 653 school administrators (381 from public and 272 from private schools). When all questionaires were gathered, it was found that 860 of them were unsuitable for analysis. In conclusion, the sample totally consists of 982 educators. The gender distribution of teachers was 61% female and 39% male and 35% female and 65% male for school administrators (see Table 1).

Instrument

The Mobbing Questionnaire was designed on the basis of literature, lengthy and repeated feedback from the subjects and factor analysis. Content validity of the instrument was examined through the literature survey, repeated feedback from the experts and from the subjects, and factor analysis. The Mobbing Questionnaire included three forms:

negative acts, reasons for mobbing, and strategies which educators use against mobbing. The instrument also requested information such as gender, age, education and seniority. The first form of 'negative acts scale' included 59 items and formed into five-point Likert Scale (answering scale: never, seldom, sometimes, often and always). The second form, 'reasons of mobbing scale', included 26 items with five-point Likert Scale (answering scale: never, little, average, great, and highly). The scale was divided into four dimensions: (i) personal qualifications of victim, (ii) personal reasons, (iii) communication related, and (iv) psychological reasons. The last form, 'coping strategies scale', included 22 items with five-point Likert Scale (answering scale: never, seldom, sometimes, usually and always).

TABLE 1: Populations and Samples of Teachers and School Administrators

Teacher						*Variable*	*School Administrator*					
Public		*Private*		*Total*			*Public*		*Private*		*Total*	
N	*%*	*N*	*%*	*N*	*%*		*N*	*%*	*N*	*%*	*N*	*%*
Gender												
254	26	170	17	**424**	**61**	**Female**	60	6	41	4	**101**	**35**
206	21	67	7	**273**	**39**	**Male**	125	13	59	6	**184**	**65**
460	**47**	**237**	**27**	**697**	**100**	**Total**	**185**	**19**	**100**	**10**	**285**	**100**

Analysis of Data

The factorial structure of the scale was first examined to be developed with exploratory factor analysis (EFA) and then confirmatory factor analysis (CFA). The EFA's aim was to find the factor or factors based on the relationships between the variables (Mars, Balla and McDonald, 1988; Stevens, 1996; Tabachnick and Fidell, 2001). Next, the CFA technique was used with the LISREL computer programme and then a hypothesis of a 59-item scale to represent the one negative act factor. The CFA aimed to evaluate how much a factorial model could fit the gathered data. The model to be examined can be described as a structure, which is determined by utilising the variables of a study or designed by basing on a certain theory (Sümer, 2000). When the literature is reviewed, it can be seen that to evaluate the validity of the model in CFA, many fit statistics were utilised. The

ones that are used the most were (Cole, 1987; Sümer, 2000) Chi-Square Goodness (χ^2), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Root Mean Square Residuals (RMR or RMS), and Root Mean Square Error of Approximation (RMSEA). In order to calculate the correlation between scale points, the Pearson Product Correlation Coefficient was used.

FINDINGS

Factor Structure and Reliability of the Mobbing Questionnaire

Construct Validity of Negative Acts Scale

The EFA was used to determine the factor structure of the Negative Acts Scale and to examine the construction of validity. The resultant analysis of the Negative Acts Scale are shown in Table 2.

TABLE 2: ECA Factor Loading and Cumulative Variance of the Negative Acts Scale

Items	*Before Rotation*	*After Rotation*						*Commonalities*
	Factor 1	*Factor 1*	*Factor 2*	*Factor 3*	*Factor 4*	*Factor 5*	*Factor 6*	
01	.67	.31	.38		.35		.52	.71
02	.60				.69			.69
03	.56	.32			.44		.49	.57
04	.65	.41			.64	.36		.77
05	.55					.78		.77
06	.63	.35				.37	.65	.74
07	.86	.55	.49					.77
08	.77	.45	.41	.32			.40	.72
09	.83	.49	.65					.83
10	.74	.41	.37	.37	.32	.35		.58
11	.82	.43	.64	.30				.78
12	.74	.34	.59		.31			.67

Items	*Before Rotation*	*After Rotation*						*Commonalities*
	Factor 1	*Factor 1*	*Factor 2*	*Factor 3*	*Factor 4*	*Factor 5*	*Factor 6*	
13	.87	.54	.5		.37			.81
14	.88	.47	.47	.34	.50			.85
15	.84	.49	.67					.83
16	.82	.46	.39	.38	.51			.78
17	.85	.54	.33		.41			.75
18	.66		.32		.65			.70
19	.71	.34	.51	.30				.61
20	.76	.34	.58	.35				.71
21	.79	.43	.48	.48		0,52		.78
22	.73	.32	.54		.38			.72
23	.79	.46	.35	.63				.79
24	.69			.78				.83
25	.72	.32	.41	.41				.60
26	.73	.38		.64				.71
27	.78	.47			.32	.47		.70
28	.88	.64	.52					.84
29	.89	.65				.37		.85
30	.89	.56	.36	.41			.31	.82
31	.94	.71	.49					.91
32	.94	.73	.33			.31		.91
33	.90	.68		.31				.85
34	.88	.73						.82
35	.90	.73	.31					.86
36	.89	.70		.41	.35			.89
37	.93	.76		.30				.92

Items	*Before Rotation*	*After Rotation*						*Commonalities*
	Factor 1	*Factor 1*	*Factor 2*	*Factor 3*	*Factor 4*	*Factor 5*	*Factor 6*	
38	.88	.71				.32		.83
39	.94	.80	.34					.93
40	.92	.73	.43					.90
41	.92	.77	.41					.91
42	.85	.76	.40					.80
43	.89	.79		.36				.89
44	.93	.78	.37					.91
45	.92	.74	.37					.88
46	.93	.80	.31	.33				.93
47	.86	.60	.30	.44	.45			.76
48	.72			.36	.41			.67
49	.80	.71		.37				.74
50	.87	.67	.31		.32			.78
51	.90	.74	.30		.33			.86
52	.82	.56		.45	.40			.76
53	.83	.70		.30	.36			.78
54	.95	.78	.40					.93
55	.92	.79	.35					.90
56	.88	.72	.34					.81
57	.95	.80	.43					.96
58	.89	.73					.32	.88
59	.93	.71	.52					.93

All 59 items between .55–.95 gave high loading at first factor. First factor explained 68.8% of total variance. Thus, the Negative Acts Scale was formed into one dimension according to the results of the EFA.

Also, the CFA was used to find out how fit the factor structure was with the data. At the end of the CFA, adaptation indexes were found χ^2=26316.79 (sd=1652, p<.001), χ^2/sd =15.93, RMSEA=0.11, GFI=0.57 and AGFI=0.54. Item–factor relationship coefficient calculated by CFA is shown in Figure 1.

Figure 1 shows the relationship between the items and factor of Negative Acts Scale. The values took place on the lines drawn from factor to item showing the effect magnitude on items (standardised coefficient). The values took place on the lines coming from outside to item, shows the variance over unexplained items. When the relationship coefficient between the factor and items are examined, it is seen that this value is higher than .30 for almost all the items. Generally values of .30 and higher is acceptable to set them in a scale, but values between .20–.30 may be used when they are important for research (Büyüköztürk, 2004). So items 03, 04, and 05 were included in the scale. Although items 3, 4, and 5 have the value lower than .30, they are not dismissed from the scale because it is significant to the study and most of the educators stated those items during the research survey. All the factor–item relationships observed are found significant at the .01 level.

Reliability of Negative Acts Scale

Cronbach Alfa internal consistency was used to calculate the reliability of the points from Negative Acts Scale. Alfa value of the Negative Acts Scale is .96. The corrected item total correlation is given in Table 3.

TABLE 3: All Items' Corrected Item Total Correlation Values in the Negative Acts Scale

Item No	*Factor Loaded*	*Item-total correlations*	*Item No*	*Factor Loaded*	*Item-total Correlations*
1	.67	.66	31	.94	.94
2	.60	.59	32	.94	.94
3	.56	.55	33	.90	.89
4	.65	.64	34	.88	.87
5	.55	.54	35	.90	.89
6	.63	.62	36	.89	.88
7	.86	.85	37	.93	.93

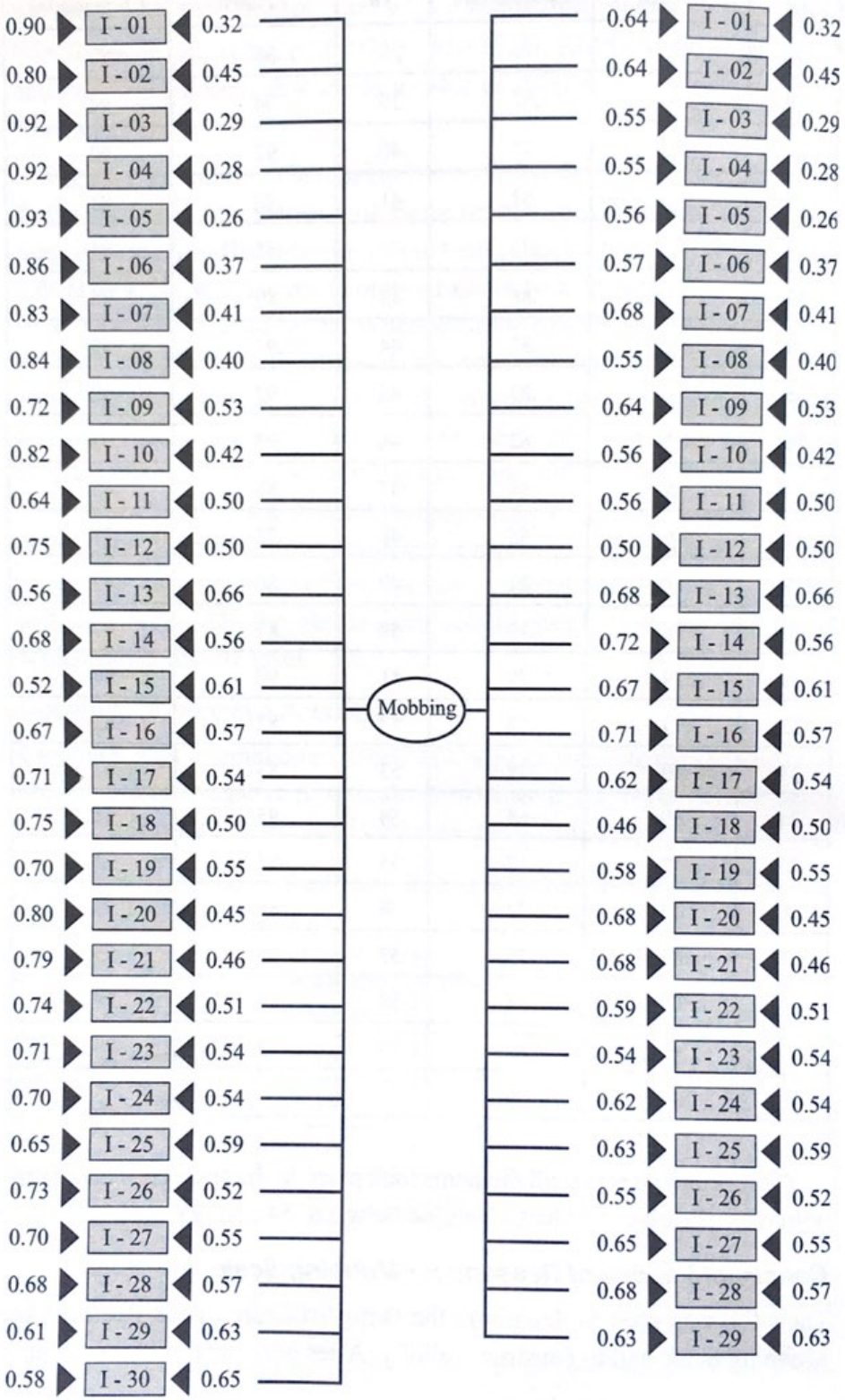
Item No	*Factor Loaded*	*Item-total correlations*	*Item No*	*Factor Loaded*	*Item-total Correlations*
8	.77	.76	38	.88	.87
9	.83	.82	39	.94	.94
10	.74	.73	40	.92	.92
11	.82	.81	41	.92	.91
12	.74	.73	42	.85	.84
13	.87	.86	43	.89	.88
14	.88	.87	44	.93	.92
15	.84	.83	45	.92	.92
16	.82	.82	46	.93	.92
17	.85	.84	47	.86	.85
18	.66	.65	48	.72	.71
19	.71	.71	49	.80	.79
20	.76	.75	50	.87	.87
21	.79	.79	51	.90	.89
22	.73	.72	52	.82	.82
23	.79	.78	53	.83	.82
24	.69	.68	54	.95	.94
25	.72	.72	55	.92	.92
26	.73	.72	56	.88	.87
27	.78	.77	57	.95	.95
28	.88	.88	58	.89	.89
29	.89	.89	59	.93	.93
30	.89	.89			

Table 3 indicates that all the items took place in the scale corrected item with total correlation values changing between .54 and .95.

Construct Validity of Reasons for Mobbing Scale

The EFA was used to determine the factor structure of the Reasons for Mobbing Scale and to construct validity. After horizontal rotation, item 7

FIGURE 1: Negative Acts Scale CFA, Factor-Item Relationship



was dismissed from the scale. Then the factors were rotated again to facilitate interpretation. The results of analysis of Reasons for Mobbing Scale are shown in Table 4.

TABLE 4: Reasons for Mobbing Scale

Item	*Before Rotation*				*After Rotation*				*Communalities*
	Factor 1	*Factor 2*	*Factor 3*	*Factor 4*	*Factor 1*	*Factor 2*	*Factor 3*	*Factor 4*	
I 23-01	.87				.74		.35	.35	.83
I 25-02	.80				.72				.73
I 12-03	.89				.71	.30	.39		.83
I 22-04	.90				.72	.33	.36	.32	.84
I 19-05	.86				.70		.41		.80
I 21-06	.84				.68	.30		.38	.76
I 24-07	.85				.68	.42	.31		.77
I 20-08	.89				.65	.42	.36		.81
I 18-09	.89				.63	.42	.32	.34	.81
I 15-10	.89				.63	.31	.46	.33	.81
I 14-11	.91				.62	.42	.44		.84
I 26-12	.82				.59	.42	.32		69
I 13-13	.79				.52		.46		.64
I 10-14	.69		.48			.75	.37		.75
I 02-15	.31	.62	.47			.71		.37	.70
I 09-16	.71		.47			.71	.48		.79
I 17-17	.81				.51	.67			.78
I 01-18	.31			.82			.86		.79
I 16-19	.70			.35	.37		.66		.66

Item	Before Rotation				After Rotation				Communalities
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 1	Factor 2	Factor 3	Factor 4	
I 11-20	.71				.31		.55	.40	.61
I 03-21	.39	.54						.77	.64
I 06-22	.62	.35			.30			.76	.74
I 04-23	49	65				.40		.72	.68
I 05-24	.66					.52		.59	.67
I 08-25	.66					.37		.44	.49

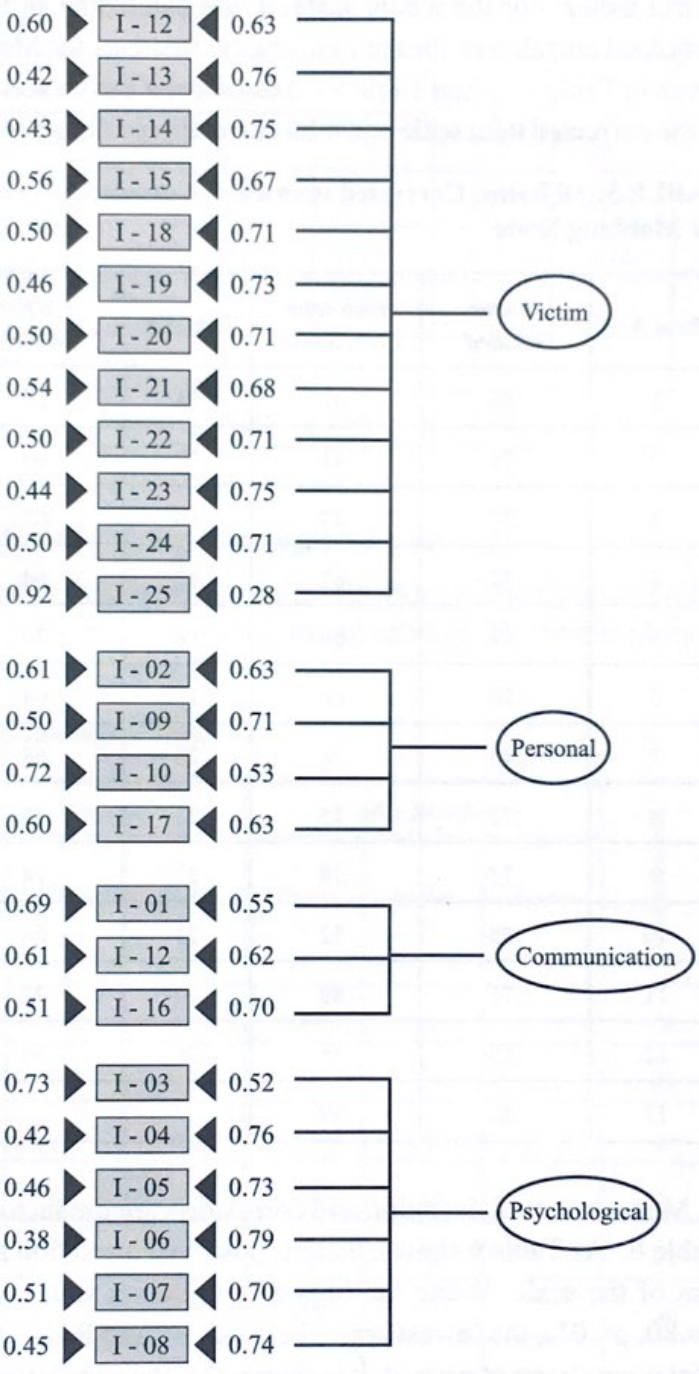
According to Table 4, 13 out of 25 items gave high loading (.52 and .74) at the first factor, 4 items of 25 gave high loading (.67 and .75) at the second factor, 3 items of 25 gave high loading (.55 and .86) at the third factor, and 5 items gave high loading (.44 and .77) at the fourth factor. The first factor explained 26%, the second factor 16%, the third factor 15%, and the fourth factor 15% of total variance. All factors explained 72% of the variance.

The 13 items that comprise the first factor are related to 'personal qualifications' of the victim; the four items that comprise the second factor of the scale are related to 'personal reasons'; the three items of the third factor are related to 'communication'; and the five items that make up the fourth factor of the scale are related to 'psychological reasons'. All factors take into consideration the characteristics measured by the respective items.

Also, CFA was used to find out how fit the factor structure was with the data. At the end of the CFA adaptation, indices were found χ^2=1788.37 (sd=269, p<.001), χ^2/sd=6.64, RMSEA=0.08, GFI=0.85 and AGFI=0.82. The item–factor relationship coefficient calculated by CFA is shown in Figure 2.

In Figure 2, the relationship between factors in model and items in factor are indicated. When the relationship coefficient between the factors and items are examined, this value is higher than .30 for all the items except item 25. All the factor–item relationships observed are found to be significant at the .01 level.

FIGURE 2: Reasons for Mobbing Scale CFA, Factor–Item Relationship



Reliability of Reasons for Mobbing Scale

Cronbach Alfa internal consistency was used to calculate the reliability of the points from Reasons for Mobbing Scale. Alfa values are .97 for the first

factor, .82 for the second factor, .65 for the third factor, and .81 for the fourth factor. For the whole scale, it was calculated at .94. The corrected item total correlation for the items in the Reasons for Mobbing Scale is as given in Table 5. When Table 5 is examined, it can be seen that all the items in the corrected item scale and total correlation values between .41 and .90.

TABLE 5: All Items' Corrected Item Total Correlation Values in the Reasons for Mobbing Scale

Item No.	*Factor Loaded*	*Item-total Correlations*	*Item No.*	*Factor Loaded*	*Item-total Correlations*
1	.86	.47	14	.63	.88
2	.71	.41	15	.66	.47
3	.77	.47	16	.67	.70
4	.72	.61	17	.64	.88
5	.59	.68	18	.70	.86
6	.76	.68	19	.64	.87
7	.44	.58	20	.68	.82
8	.71	.75	21	.71	.90
9	.75	.78	22	.74	.88
10	.55	.52	23	.68	.84
11	.71	.89	24	.72	.83
12	.55	.76	25	.59	.80
13	.61	.89			

Mean, standard deviation and correlation are the factor points shown in Table 6. As Table 6 shows, there is positive correlation among the all factors of the scale. While the highest correlation was between F2 and F4 ($r=.80$, $p<.01$), the lowest one is between F1 and F4 ($r=.63$, $p<.01$). When total points were examined, it is shown that the correlation between F1 and total of the scale has the highest F4 ($r=.92$, $p<.01$) value. Correlation between total of the scale and the other factors are similar ($r2=.88$, $r3=.87$, $r4=.86$, $p<.01$).

TABLE 6: Means, Standart Deviations and Correlations Among the Factors' Points of Reasons For Mobbing Scale (N=834)

Factors	*Correlations*				$\overline{X}$	*S*
	1	*2*	*3*	*4*		
Factor 1	-	.71**	.76**	.63**	19.89	10.90
Factor 2	.71**	-	.74**	.80**	9.47	4.26
Factor 3	.76**	.74**	-	.72**	6.40	3.07
Factor 4	.63**	.80**	.72**	-	13.09	5.82
Total	.92**	.88**	.87**	.86**	51.49	22.52

Note: ** p<.01

Construct Validity of Coping Strategies Scale

The EFA was used to determine the factor structure of the Coping Strategies Scale (CSS) and to examine and construct validity. The results of analysis of CSS are shown in Table 7.

TABLE 7: Coping Strategies Scale

Item	*Before Rotation*			*After Rotation*			*Commonalities*
	Factor 1	*Factor 2*	*Factor 3*	*Factor 1*	*Factor 2*	*Factor 3*	
I 04-01	.81			.75	.36		.76
I 05-02	.36			.75			.62
I 07-03	.87			.73	.46		.82
I 09-04	.81			.69	.38		.71
I 03-05	.74			.68	.30		.63
I 06-06	.64			.62			.49
I 14-07	.89			.61	.58	.33	.81
I 02-08	.75			.60	.31	.38	.60
I 01-09	.81			.59	.30	.53	.71

Item	*Before Rotation*			*After Rotation*			*Commonalities*
	Factor 1	*Factor 2*	*Factor 3*	*Factor 1*	*Factor 2*	*Factor 3*	
I 08-10	.72			.58	.44	.48	.57
I 10-11	.65			.52			.52
I 15-12	.78				.77		.76
I 18-13	.84			.32	.76	.37	.82
I 13-14	.81				.74	.36	.77
I 16-15	.69				.74		.65
I 17-16	.68	.34			.73	.31	.64
I 12-17	.86				.61	.41	.76
I 11-18	.90			.46	.60	.36	.82
I 22-19	.63		.53	.57		.79	.72
I 21–20	.73		.38			.75	.73
I 19-21	.60	.41	.34		.32	.74	.65
I 20-22	.77	.38			.49	.70	.77

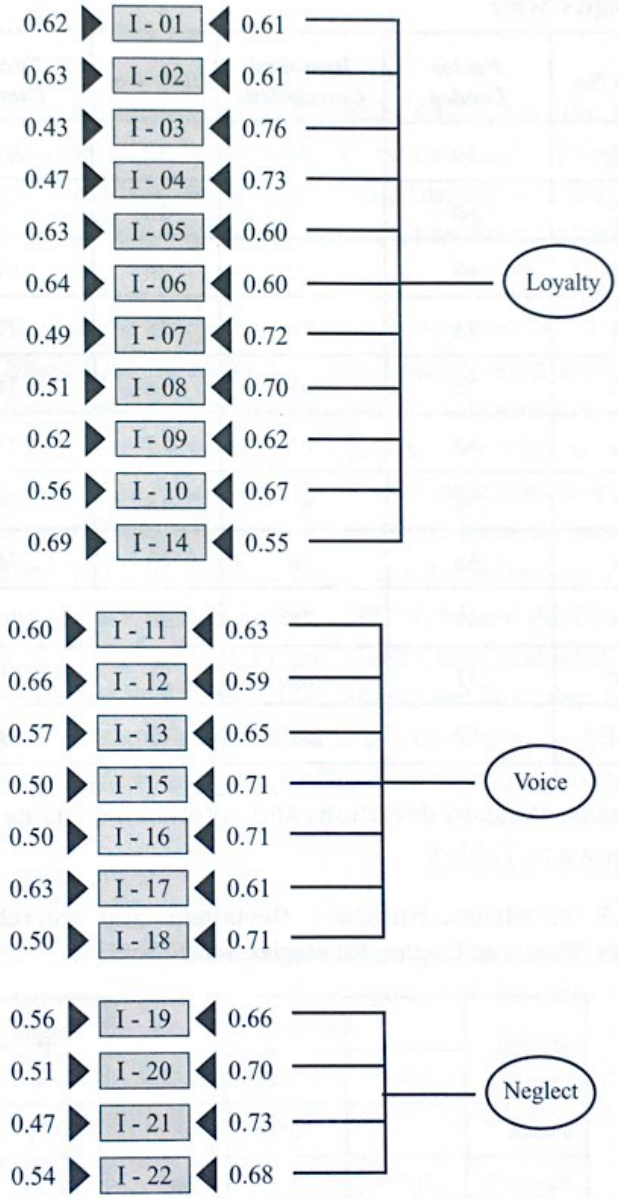
According to the Table 7, 11 items of 22 gave high loading (.52–.75) at the first factor of 'loyalty', 7 items of 22 gave high loading (.60 and .77) at the second factor of 'voice-exit', and 4 items of 22 gave high loading (9.70 and .79) at the third factor of 'neglect'. The first factor explained 26% of total variance, the second factor 24% of total variance, and the third explained 19% of total variance. All factors explained 69% of variance.

Each factor takes into consideration the characteristics measured by the items. Also, CFA was used to find out how fit the factor structure was with the data. At the end of the CFA adaptation, indices were found χ^2=3233.09 (sd=206, p<.001), χ^2/sd =15.69, RMSEA=0.13, GFI=0.74 and AGFI=0.68. Item-factor relationship coefficient calculated by CFA is shown at Figure 3.

In Figure 3, the relationship between factors in model and items in factor is shown. When the relationship coefficient between the factors and items

are examined, it is seen that this value is higher than .30 for all the items. All the factor–item relationships observed are found significant at the .01 level.

FIGURE 3: Coping Strategies Scale CFA Factor–Item Relationship



Reliability of Reasons for Coping Strategies Scale

The Cronbach Alfa internal consistency was used to calculate the reliability of the points from CSS. Alfa values are .94 for the first factor, .94

for the second factor, and .86 for the third factor. For the whole scale, it was calculated as .92. The corrected item total correlation for CSS is given in Table 8. It can be seen that corrected item total correlation values change between .57 and .88.

TABLE 8: All Items' Corrected Item Total Correlation Values in the Coping Strategies Scale

Item No.	*Factor Loaded*	*Item-total Correlations*	*Item No.*	*Factor Loaded*	*Item-total Correlations*
1	.59	.79	12	.61	.84
2	.60	.72	13	.74	.78
3	.68	.71	14	.61	.87
4	.75	.78	15	.77	.76
5	.75	.63	16	.74	.66
6	.62	.61	17	.73	.65
7	.73	.85	18	.76	.82
8	.58	.70	19	.74	.57
9	.69	.78	20	.70	.74
10	.52	.62	21	.75	.69
11	.57	.88	22	.79	.60

Means, standard deviations and correlations among the factors' points are shown in Table 9.

TABLE 9: Means, Standard Deviations and Correlations Among the Factors' Points of Coping Strategies Scale (N=833)

Factors	*Correlations*			$\overline{X}$	*S*
	1	*2*	*3*		
Factor 1	—	.70**	.49**	20.11	9.09
Factor 2	.70**	—	.66**	12.36	6.11
Factor 3	.49**	.66**	—	9.19	4.47
Total	.91**	.90**	.75**	41.66	17.12

Note: ** p<.01

As Table 9 shows, there is positive correlation among all the factors of the scale. While the highest correlation was between F1 and F2 (r=.70, p<.01), the lowest one is between F1 and F3 (r=.49, p<.01). When total points were examined, it is shown that correlation between F3 and total of the scale has the lowest (r=.75, p<.01) value, while others' values are high (r1=.91, r2=.90, p<.01).

DISCUSSION

The CFA and EFA were applied by using the data obtained by the Mobbing Questionnaire, which was composed of three sub-scales (Negative Acts Scale, Reasons for Mobbing Scale, and Coping Strategies Scale) with validity and reliability to determine the exposition of mobbing of schools in Turkey.

The analysis shows that the Negative Acts Scale was one factor structure with 59 items. Since item numbers 3, 4 and 5 had contextual importance for the study, they were included in the scale even though they had a value lower than .30, resulting from the EFA analysis. The scale was constructed by the negative acts to which the interviewed educators were subjected to during their career. The goodness-of-fit of the factorial model of the scale was evaluated using multiple criteria, and the following values were calculated: χ^2/sd =15.93, RMSEA=0.11, GFI=0.57 and AGFI=0.54. Results are fit model, that is, χ^2/sd>5, GFI and AGFI < 0.90 and RMSEA > 0.05 (Jöreskog, Sörbom, and Wallentin, 2006; Marsh and Hocevar, 1988). Cronbach Alfa internal consistency was used to calculate the reliability of the points from Negative Acts Scale. The Alfa value calculated is .96 for the scale.

Reasons for Mobbing Scale was made up of 25 items and four-factor structure according to the EFA where 13 items with a load value of .52–.74 took place in the first factor (personal qualifications), 4 items (.67–.75) of 25 took place in the second factor (personal reasons), 3 items (.55–.86) of 25 took place in the third factor (communcations), and 5 items (.44–.77) took place in the fourth factor (psychological reasons) to give a high load value. Kline (1994) evaluated the items factor load values: high = .60 and over, and moderate = .30–.59. However, Tabachnick and Fidell (2001) evaluate .45 and over as good criteria. The first factor explained 26%, second factor 16%, third factor 15%, and the fourth 15% of the total variance. All factors explained 72 % of variance and are named by taking into consideration the characteristics measured by the items. The goodness-of-fit

of the factorial model of the scale was evaluated using multiple criteria, and the following values were calculated: χ^2/sd =15.69, RMSEA=0.13, GFI=0.74 and AGFI=0.68. Results are fit model that is χ^2/sd > 5; GFI and AGFI < 0.90; RMSEA > 0.05 (Jöreskog, Sörbom, and Wallentin, 2006; Marsh and Hocevar, 1988). Cronbach Alfa internal consistency was used to calculate the reliability of the points from Negative Acts Scale.

The Cronbach Alfa internal consistency was used to calculate the reliability of the points from Reasons for Mobbing Scale. Alfa values are .97 for the first factor, .82 for the second factor, .65 for the third factor and .81 for the fourth factor. For the whole scale, it was calculated at .94.

The CSS comprised 22 items and a three-factor structure of loyalty, voice-exit and neglect, according to the EFA. Here, 11 items with a load value of .52–.75 in the first factor (loyalty), 7 items (.60 and .77) took place in the second factor (voice-exit), and 4 items (.70 and .79) took place in the third factor (neglect) with high load value. The first factor explained 26% of total variance, second factor explained 24% of total variance, and third factor explained 19% of total variance. All factors explained 69% of variance. The goodness-of-fit of the factorial model of the scale was evaluated using multiple criteria, and the following values were calculated: χ^2/sd =15.69, RMSEA=0.13, GFI=0.74 and AGFI=0.68. Results are fit model that is, χ^2/sd > 5; GFI and AGFI < 0.90 RMSEA > 0.05 (Jöreskog, Sörbom, and Wallentin, 2006; Marsh and Hocevar, 1988). Cronbach Alfa internal consistency was used to calculate the reliability of the points from the Negative Acts Scale and CSS. Alfa values are .94 for the first factor, .94 for the second factor, and .86 for the third factor. For the whole scale, it was calculated as .92.

As a result, the analysis done over the data obtained in this study showed that the Mobbing Questionnaire was made up of three sub-scales namely Negative Acts Scale (59 items valid and reliable a factor), Reasons for Mobbing Scale (25 items valid and reliable four factors), and CSS (22 items valid and reliable three factors).

Research showed that educators were exposed to mobbing during their career. For these reasons, setting negative acts that can cause mobbing is very important. Besides, finding those methods that educators we against mobbing and which help them to cope during the period of mobbing, are also important to know. Finally, revealing perceived reasons for mobbing are supposed to help administrators and clients for setting measures against

mobbing. Examining mobbing as a phenomenon will help other studies in Turkey.

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