Workplace Bullying Associated Health Hazards. Is It Lack of Quality Assurance? A model of Organizational Intervention in Egypt

Raed Alazab, Rawda Elsheikh, and Iman Kamal
Department of public health and Occupational medicine, Faculty of medicine, Alazhar University, Cairo, Egypt.
raedelazab@hotmail.com

Abstract:

Background: Bullying at workplace in Egypt is still a hidden problem and most of organizations haven't policy to combat it. WHO/ILO defined bulling as "repeated and over time offensive behavior through vindictive, cruel, or malicious attempts to humiliate or undermine an individual or groups of employees". **Objectives:** to find out the magnitude of bullying among the studied workers in Egypt, to determine causes, forms and health hazards of bullying among the examined workers and to assess the value of intervention on the prevalence rate of health hazards of bullying among the studied workers. **Methodology:** Cross - Sectional study was conducted among 1127 workers. The workers were investigated against bullying. All subjects were examined to explore the health hazards. A management commitment policy against bullying was announced inside the workplace besides raising the knowledge of employees about bullying. Reassessment was done after one year. **Results:** 71.3 % of the studied workers were experienced bullying at workplace. The most prevalent forms of bullying among the examined workers were: discount the person's thoughts (64.2%), Screaming (53.1%), refuse reasonable requests (49.1%), and regular unfair criticism in front of colleagues (39.7%). These proportions were decreased after the intervention to: 27.8%, 16.7%, 19.2% and 8.3% respectively. The main factors determined bullying was: need to meet deadline (91.2%), excessive workload (83.7%), keep workers alert and active (79.6%) and low performance (67.3%). The most prevalent health hazards among the bullied workers were; loss of concentration (60.7%), insomnia (57.1%), headache (53.4%), tachycardia (52.7%), and unexplained fatigue (47.3%). These proportions were decreased after the intervention to: 11.8%, 9.1%, 6.6%, 7.2% and 10.2% respectively. **Conclusions:** management commitment policy and raising awareness against bullying could be a preventive program for some of health disorders. **Recommendation:** Policy against bullying might be added to the accreditation tools of quality of health services.

Introduction:

Bullying is one of the variety of behaviors that may be covered under the term 'psychological workplace violence' (sometimes called Emotional abuse) which is defined as; 'Intentional use of power, including threat of physical force, against another person or group, that can result in harm to physical, mental, spiritual, moral or social development. Psychological violence includes verbal abuse, bullying/mobbing, harassment, and threats. (ILO/WHO, 2003).

Sometimes, the terms; Mobbing and Bullying are used to define different action as; Mobbing is a negative form of behavior, between colleagues or between hierarchical superiors and subordinates, whereby the person concerned is repeatedly humiliated and attacked directly or indirectly by group of people for the purpose and with the effect of alienating him or her while Bullying is the intention of one person to cause psychological harm towards one or more than one person inside the workplace considering that the action is done repeatedly and over a period of time. (European Commission Advisory committee, 2001).

Recently, mobbing and bullying are used for the similar meaning. So, workplace bullying is defined as: repeated, unreasonable behavior directed towards

an employee, or group of employees, that creates a risk to health and safety. It was hypotheses that the phenomenon of bullying begins with a single person who then orchestrates the campaign of hate with the help of followers. Thus the semantic difference between workplace bullying and mobbing disappears. They are identical phenomenon. However, In different countries other terms have been adopted to indicate similar behavior in the workplace like: Bullying, Work or Employee Abuse, Mistreatment, Emotional Abuse, Bossing, Victimization, Intimidation, Psychological terrorization, Psychological violence. It was formulated that the term (bully) refers to the persons who do bullying while the term (bullied) refer to the persons who affected with bullying (WBI, 2003).

The prevalence rate of bullying varies greatly, with figures ranging from 1% at the lowest level to above 50% at the highest level, dependent upon the applied measurement strategy, occupation or sector, as well as country (Zepf et al., 2003).

Bullying can have a significant effect on the physical and mental health of the workforce. In many cases, the effects can remain beyond the time of the bullying experience, sometimes affecting victims for years. Persistent exposure to bullying is also likely to affect the behavior as well as the attitude of workers. It can lead to an increase in accidents, lack of concentration and increased use of alcohol and tobacco consumption. Exposure to persistent and regular bullying may also make it difficult for workers to cope with daily tasks. In addition to the effects on individual workers, bullying at work can also have a major effect on an organization. Victims of bullying are likely to suffer from stress-related illnesses leading to significant levels of sickness absence (UNISON, 2003).

As bullying mainly targeted the mind of the target worker, psychosomatic disorders are expected to be prevalent among the bullied workers. Psychosomatic medicine emphasizes the unity of mind and body and the interaction between them. To meet the diagnostic criteria for psychological factors affecting a medical condition, the following two criteria must be met: a medical condition is present and psychological factors affect it adversely (Kaplan and Sadock, 2005)**.**

Bullying at workplace in Egypt still a hidden problem and most of organizations haven't policy to combat it. The absence of clear policy makes the bullied workers have no way for complaining and at the same time encourage the bullies to continue in their way. The present study tried to spot the light on the problem of bullying at the studied workplaces and to find the impact of this phenomenon on the health of the studied workers.

Objectives:

- To find out the magnitude of bullying among the studied workers in Egypt.
- To determine causes, forms and health hazards of bullying among the examined workers.
- To assess the value of intervention on the prevalence rate of health hazards of bullying among the studied workers.

Subjects and Methods:
Research setting:

This study was conducted within 18 months and included 1127 workers (blue collars) and employees (white collars) from a big multinational company working in Egypt. This study was approved by the core management team of the company and was conducted under their full support. During the first 2 months of the study, the workplaces inside the factory were visited and an explanation of the purpose of the study was explained and invitation to the employees and the workers to join in the present study was conducted. Those (1127 out of 1430) who gave their verbal consent were listed as the study group.

Study design:

Cross sectional study was designed. This study passed 3 phases: preparatory phase (site of the study, target population, preparation of checklists, pilot study, sampling and ethical consideration were done), Implementation phase (data collection before and after the intervention was conducted) and evaluation phase (data entry, statistical analysis, results, discussion, conclusion and recommendations were done).

Target population:

The workers (blue collar) and the employees (white collar) were selected based on the following criteria: working at least since 5 years, exposed to long working hours (> 40hours/week) and not suffering from any chronic diseases and not receiving any medical treatment.

Data Collection, methods and statistical analysis:

All subjects were subjected to an interview sheet containing personal data (age, sex and special habits), occupational history (type of occupation, duration of occupation, working hours/day and past history of other occupations) and checklists. These checklists were; bullying survey adapted and modified from ILO (ILO, 2003) and workplace bullying and trauma institute (WBI, 2007). The bullied workers were subjected to health symptoms list before and after the intervention (WBI, 2003). Also, bullied workers were subjected to checklists to investigate the depression symptoms, phobia at work and posttraumatic stress symptoms before and after the intervention by using (DSM, 2000). Then, the quality of work life of bullied workers was investigated by using the module of NIOSH (General social survey, 2002). Moreover, the bullied workers before and after the intervention were subjected to checklists to measure the behavioral characteristics like; level of accepting the work environment, the ability to work within a team work, tendency to post pond tasks and degree of self confidence (Shehata, 2005). Intervention to deal with bullying inside the studied workplaces was planned and implemented as following; assigning a task force on the prevention and control of bullying. It was coordinated by the occupational medicine department inside the company with participating representatives from different departments inside the company and the participation of the company trade union with full support from the management team. The main objective of the task Force was to identify the size of the problem. This was achieved through originating a written policy against bullying which was modified from (UNISON, 2003). The policy included: statement management commitment: The policy stated a clear management commitment to combat bullying at the workplace. Definition of what is bullying at work and examples of forms of bullying were

announced and stated in the policy. Quality of health and safety: The company stated that policy against bullying will be an item of the quality assurance of health and safety inside the company workplaces. Contact persons: to receive complaints from the bullied workers and conduct the complaint to the appropriate manager for deciding action. Company trade union role: the company will allow trade union representatives to attend training courses on bullying and to assist the colleagues in preparing and submitting the complaints. Complaints consequences: the policy includes informal as well as formal action to deal with complaints of bullying; *Informal actions* include asking the bully to stop the bullying behavior and make it clear what aspect of his behavior is offensive and unacceptable. This can be done either verbally or in writing. If the bullied person feels unable to approach the person responsible directly, a friend, colleague or trade union representative can make this initial approach. If an employee is unable to do the above approach, or the bullying is of a very serious nature, they can approach the assigned contact person who will provide informal advice in confidence. *Formal actions:* the bullied should formally report to his line manager or to the assigned contact person. All complaints will be handled and investigated in a timely and confidential manner. As a first stage in the investigation, the contact person will arrange to interview separately both the complainant, and the person against whom the complaint has been made. The contact person or (senior manager as above) will give a detailed response in writing to the complainant. If the investigation reveals that the complaint is true, prompt action designed to stop the bullying immediately and prevent its recurrence will be taken. Building capacity: Contact persons and the manager responsible for investigating complaints will be given training for this role. This policy on bullying will be published in the following ways (via training, leaflets, notice boards and so on..) and the policy will also be brought to the attention of contractors and agency staff, who will be required to comply with the policy as part of their contract. Addressing bullying as a health problem: The company recognizes bullying as a cause of stress. This will be treated as a workplace health problem. Monitoring and evaluation: This policy was monitored on regular basis every one month and evaluated after one year. This was done by the department of occupational medicine inside the studied company with full commitment from the management team of the company. Quality assurance: which is defined as: to ensure no new problems have been introduced and that corrective actions have been effective (Blum, 1981). A modified form from (UNISON, 2003) was used to ensure the quality of the program after one year of implementation. The core requirements of quality of the implemented program were assessed every one month and scoring was done after 12 months based on the percentage of positive answers from the total number of questions asked for that standard. So, the following categories were result: Fully implemented (100%), partially implemented (>50% : < 100%), poorly implemented (>0%:50%) and not implemented (0%).

The following are definitions were obtained from (Kaplan & Sadock's, 2005) and used in the present study: Depression: psychopathological feeling of sadness. Posttraumatic stress disorder: the person has been exposed to intense fear, helplessness or horror.

Data entry and statistical analysis were done by using personal computer (Epi info program). Proportion, Range, Mean ± St.D and Z test were the statistical test used for analysis of data. P value < 0.05 was accepted as a level of significance.

Results:

Table (1): shows that mean age of the studied workers was 44.3±2.6. 96.2% were male, 54.7% were below secondary education, 72.9% were blue collar (working 12hours/day/5days/week), mean duration of work was 17.1±1.2 and 61.3% were smokers.

Table (2): shows that the proportion of all different forms of bullying decreased after the intervention. The most prevalent forms of bullying among the examined workers were: discount the person's thoughts (64.2%), Screaming (53.1%), refuse reasonable requests (49.1%), and regular unfair criticism in front of colleagues (39.7%). These proportions were decreased after the intervention to: 27.8%, 16.7%, 19.2% and 8.3% respectively. It was also shown that the mean years of experience of bullying was 12.1± 0.6. It was observed that the overall prevalence rate of bullying among the white collar workers was 22.2% while it was 49.1% among the blue collar workers. These proportions were decreased to 7.6% and 10.4% respectively. It was observed that the total prevalence rate of bullying among the studied workers was (71.3%) which decreased to 18.01 after the intervention. It was observed that 67.3% and 82.3% of the blue collars and white collars were bullied respectively. These proportions were decreased after the intervention to 14.2% and 28.2% respectively ($p<0.05$).

Table (3): shows that factors determined bullying was classified into factors related to the bullied himself and factors related to the bully. The proportion of the different factors related to the bullied was higher among the blue collar workers than white collar workers with statistical significant difference. The most higher proportions which were presented among blue collar workers and white collar workers were as following: independent, refused to be controlled (32.7% vs 64.2%), focused on work and ignored politics (16.3% vs 40.9%) and non confront and easily overrun by others (20.3% vs 43.9%). Regarding the factors related to the bullied it was shown that the most prevalent factors were: need to meet deadline (91.2%), excessive workload (83.7%), keep workers alert and active (79.6%) and low performance (67.3%).

Table (4): shows that the implemented intervention decreased the proportion of all psychosomatic symptoms among the bullied workers to lower proportions. It was noted that lack of concentration was decreased from 60.7% to 11.8%, insomnia decreased from 57.1% to 9.1%, stress headache decreased from 53.4% to 6.6%, tachycardia decreased from 52.7% to 7.2%, lack of sexual desire was decreased from 38.2% to 22.1%, irritable bowel syndrome symptoms were decreased from 43.1% to 9.1% and stress headache was decreased from 53.4% to 6.6%.

Table (5): shows that the symptoms of the phobia at workplace among the bullied workers. It was observed that the most prevalent symptoms were: worry extend to involve any activity outside work (43.8%), excessive worry about work (42.5%) and complaining multiple unlinked physical complaints (32.7%). These symptoms were decreased after the intervention to: 14.5%, 13.9% and 11.7

respectively. Total prevalence rate of phobia at workplace among bullied workers was 43.8% which decreased to 14.5% after the intervention.

Table (6): shows that the proportion of diagnosis of depression among the bullied workers was decreased after the intervention from 26.6% to 8.8%.

Table (7): shows that the manifestations of the posttraumatic stress were decreased after the intervention as following: recurrent recollection of the event (from 31.6% to 20.3%), recurrent distressing dreams of the event (from 33.3% to 24.2%), Intense psychological distress at exposure to internal or external cues similar to bullying aspect (from 28.9% to 9.6%)and feeling as if the traumatic event were recurring (from 24.2% to 6.7%).

Table (8): shows that the studied behavioral characteristics of the bullied workers were improved after intervention to some extent as following: accepting the work environment increased from 13.5% to 41.2%, cooperation with colleagues was increased from 12.2% to 16.5%, tendency to post pond tasks decreased from 35.7% to 26.7% and sense of self confidence increased from 21.9% to 24.4%. it was also noted that the general characteristics of the bullied workers were; mean age (35.2 ± 1.3), majority of bullied workers were male (94.9%), preparatory education was representing (56.5%), blue collar workers were representing (68.8%) and smokers were (87.9%).

Table (9): shows that out of 27 items (which were representing the quality of work life among the bullied workers) only 6 items were appreciated by the bullied workers. These items were: Proud to be working at this organization (81.9%), availability of enough equipments to get the job done (88.1%), a lot of freedom is present to decide to do work (61.7%), the training opportunities are available (67.6%), bonus in case of doing well (63.7%), job income alone is enough for the family's needs (91.9%).

Table (10): shows that (31.3%) of the core elements of quality of the implemented program were fully applied while (37.5%) of these elements were partially implemented while 18.7% and 12.5% of quality elements were poorly and not met respectively.

Discussion:

The prevalence rate of bullying among the studied workers/employees in the present study was 71.3% with more proportion among the blue collar workers (table 8). It could be postulated that individual factors can influence the incidence and process of bullying in the workplace. Individual factors like gender, age, educational level, type of employee and special habit appeared in the present study as characteristic factors among the bullied workers (table 8) and also the factors determined bullying in (table 3) showed that some specific factors related to the bullied and another factors related to the bully might determine the phenomenon of bullying among the studied workers. So, individual factors can play as a cornerstone of the problem of bullying. These findings are in line with (Standing and Nicolini, 1997) & (Chappell and Di Martino, 2000) who reported that wearing a uniform and personal appearance could function as risk factors for bullying depending on the

general attitude towards people in uniform or towards particular groups of uniformed employees. It was concluded from several studies on bullying that the following characteristics were identified for the victims of bullying: female; young (20-40 years); and lower level education. This coincide with the results of the present study which reported that the bullied workers were in their thirties, majority of them were preparatory school education level but majority of them were male. It was noticed that the prevalence rate of bullying in similar studies were varies greatly, with figures ranging from 1% to more than 50%. This depended on the applied methodology, the highest figures normally relate to experience of bullying expanding over an individual's career while when bullying was measured by means of a precise definition and refers to a regular experience on a weekly basis, less than 5% of the population were found to be bullied. When experiences of occasional bullying was used to measure the prevalence rate of bullying, a figure of around 10% is reached. By contrast, in cases where subjects were considered bullied if they had experienced one or more negative behaviors associated with bullying (like seen in the present study), figures of between more than 10% to nearly 40% are achieved. (Salin, 2002), (Vartia and Hyyti, 2002), (Haapaniemi and Kinunen, 1997), (Kivimäki et al, 2000), (Mackensen von Astfeld, 2000) (Meschkutat et al, 2002), (Hubert and Veldhoven, 2001), and (Voss et al, 2001).

The present study might hypothesizes that managers' ignorance and failure to recognise and intervene in cases of bullying may indirectly contribute to bullying by exporting the message that such behaviour is acceptable. In a national Irish study, (O'Moore, 2000) found that a significantly greater number of victims of bullying reported that they worked in units or organisations managed in an dictatorial manner than those who were not harassed.

The intervention done in the present study succeeded to decrease the prevalence rate of the psychosomatic symptoms, decreased the proportion of manifestations of phobia at work, decreased the proportion of the depression symptoms, decreased the manifestations of posttraumatic stress manifestations and made a recognize change in the personal behavior of the bullied workers (table 3, 4, 5, 6, 7). This might be attributed to the improvement in the work environment at the studied workplace. It is meant by work environment the program designed and implemented by the present study to minimize the forms of bullying inside the studied workplace (table 2). Zapf, 1999 reported that bullying is associated with a negative work environment in the form of several forms of bullying. It was noticed that majority of these forms were similar to the forms found in the present study.

As the intervention in the present study showed improvement in the psychosomatic symptoms to some extent among the bullied workers it could be postulated that combating workplace bullying is an important prevention tool of the development of psychosomatic manifestations. Also, these psychosomatic manifestations might be attributed and aggravated by the low level of the quality of work life among the bullied workers in the present study (table 9). According to a study by the Irish Health and Safety Authority (HSA, 2001), experience of bullying is strongly associated with stress reactions. In line with this, (O'Moore, 2000) indicated that 40% of victims reported that bullying affected their physical health and 43% their mental health. Consequently, 26% and 92%, respectively, had been seeking medical or psychiatric treatment. Also, Bilgel et al., 2006 stated that; the bullied workers had significantly higher depression score (examined by binary logistic regression analysis).

In a study of employees in an Austrian hospital, Niedl (1996) found that individuals who reported themselves as being bullied had higher scores on depression, psychosomatic complaints and anxiety and irritation than those who were not bullied, at a level which was statistically significant. Similar results were also found in a number of other studies, for example, in Germany (Mackensen von Astfeld, 2000) and Denmark (Mikkelsen and Einarsen, 2002).

The present study found that about 24%: 33% of the bullied workers were suffering from different manifestations of post-traumatic stress disorder (PTSD). This range decreased after the intervention to 6.7%: 24% (table 7). Mikkelsen and Einarsen, 2002 found a link between bullying and PTSD and stated that it has been found that in many cases, compared with patients who have been diagnosed as suffering from PTSD resulting from involvement in traumatic accidents, victims of bullying showed significantly higher levels of PTSD.

The present study might claim that that exposure to bullying could be an aggravator factor for behavioral reactions such as the compatibility with work environment, cooperation with colleagues, tendency to post pond tasks and sense of self confidence (table 8). It was shown some improvement in these personal behavior which might be allocated to different factors; bulling is one them. Warshaw and Messite, 1996 agreed with the present results and added that the behavior change which resulted from bullying could increase the proportion of irritability among the bullied workers. When the bullied workers being attacked repeatedly over a long period of time this is might lead to changes in their behavior. These workers will start acting obsessively with respect to their complaint, which for the observer may become an irritant. This may gradually change the observer's previous opinion of the bullied, seeing them as creators of their own misfortune (Leymann, 1996).

The intervention of the present study decreased the proportion of depression among the bullied workers from 26.6% to 8.8% (table 6). This might explain the strong association between workplace bullying and the development of depression. Brousse et al., 2008 reported higher proportion of depression among workers suffering workplace bullying (52%). This might hypothesis that whenever workplace bullying go unresolved the bullied workers will be in continuous risk of developing depression during their working life. According to the study of the members of the UK's Royal College of Nursing, bullying and harassment was the 'single most significant variable associated with a lower level of psychological well-being, with the strongest effect being felt by those who were most frequently exposed (Ball and Pike, 2001).

As seen in (table 9) the quality of work life among the bullied workers was at low level. Also, it could be postulated that low quality of work life might be a cause of specific phobia at workplace as seen in (table 5). the review of the literature showed that there is a growing awareness that workplace bullying is not merely episodic individual problems, but structural strategic problem. So, any action taken against such problem should be considered an integral part of the organizational development. Preventing bullying in the workplace is not only possible but also necessary. the health, safety and well-being of workers become integral parts of enterprise growth. So, the impact is not only on traditional direct and indirect costs (such as accidents, illness, disability, absenteeism, turnover, reduced morale,

reduced commitment), but also on the organization development (Di Martino, 2002).

The quality assessment of the implemented program showed that 37.5%, 18.7% and 12.5% of the quality items were partially, poorly and not implemented respectively and only 31.3% of the quality items were fully implemented (table 10). In spite of the improvement was shown after the intervention but it seems that the only support for the continuity and the more success of the proposed program is to activate the process of quality assurance of the implemented program.

Conclusion:

The implemented intervention decreased the proportion of all psychosomatic symptoms among the bullied workers to lower proportions. Total prevalence rate of phobia among bullied workers was 43.8% which decreased to 14.5% after the intervention. The proportion of diagnosis of depression among the bullied workers was decreased after the intervention from 26.6% to 8.8%. The manifestations of the posttraumatic stress were decreased after the intervention. The studied behavioral characteristics were improved after intervention to some extent. Out of 27 items (which were representing the quality of work life among the bullied workers) only 6 items were appreciated by the bullied workers. Only 31.3% of the core elements which determined the quality of program implemented were fully implemented.

Recommendations:

- Bullying at workplace need to be considered work-related hazard.
- Occupational health program needs to address anti bullying policy as a core for accreditation of the quality of health services inside any enterprise.
- Quality improvement should be applied regularly during the implementation of the program of anti bullying.

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Table (1): General characteristics of the studied group

General characteristics	Total N. = 1127 N. %
Age Mean ± St.D.	 44.3 ± 2.6
Sex Male Female	 1048 96.2 79 3.8
Education Preparatory Secondary University	 617 54.7 322 28.6 188 16.7
Type of employees Blue collar White collar	 822 72.9 305 27.1
Working hours/ day Blue collar White collar	 12hours/day/6days/week 8hours/day/5days/week
Work duration Mean ± St.D. Range	 17.1 ± 1.2 years 6 – 24 years
Special habit Smoking	 691 61.3

Table (2): Form of bullying among the studied workers

Forms of bullying	Before intervention N.= 1127		after intervention	
	N.	%	N	%
- the bullied accused for "errors" not actually made	431	38.2	127	11.3
The bully refuse reasonable requests	553	49.1	216	19.2
Regular unfair criticism from the bully infront of colleagues	447	39.7	93	8.3
- the bullied expose to aggression mood from the bully	421	37.3	87	7.7
- the bullied thoughts are discounted in front of others	723	64.2	313	27.8
- "ice out" & separate the worker from others	365	32.4	127	11.3
- The bully is not satisfied from the quality of completed work despite evidence	411	36.5	213	18.9
- The bully having a different "standard" for completion of the target	409	36.3	123	10.9
- The bully initiate destructive rumors about the worker	396	35.1	98	8.7
- The bully encourages people to turn against the attacked worker	404	35.8	111	9.8
- the bullied expose to undignified, but not illegal behavior	411	36.5	109	9.7
- the bully screaming in front of others to humiliate a worker	598	53.1	188	16.7
- the bully wrap credit for work done	431	38.2	133	11.8
- the bully abuse the evaluation process by lying about the person's performance	416	36.9	121	10.7
- the bully used confidential information about a person to humiliate privately or publicly	399	35.4	107	9.5
- the bully made verbal insults based on gender, accent or language, disability	401	35.6	99	8.8
- the bully assigned undesirable work as punishment	397	35.2	92	8.2
- the bully made undoable workload, deadlines, duties	441	39.1	104	9.2
- the bully encourage the person to quit or transfer rather than to face more mistreatment	387	34.3	87	7.7
- the bully disrupt the person's contribution to a team goal and reward	433	38.4	189	16.8
Experience of Bullying (years) **Mean ± St.D.** **Range (years)**	12.1 ± 0.6 5: 18			
Total currently bullied	804	71.3	203	18.01
- blue collar (total N.=822)	553	67.3	117	14.2
- white collar (total N.=305)	251	82.3	86	28.2
Chi2	24.5		29.4	
P	0.0		0.0	

N.B. Bullying is considered if the worker/employee expose to one of the above bullying forms

Table (3): Factors determined bullying among the bullied workers

Factors determined bullying	white collar N. = 251		Blue collar N. = 553		Z test	P value
	N.	%	N.	%		
Factors related to the bullied:						
- independent, refused to be controlled	82	32.7	355	64.2	69.2	0.0
- focused on work, ignored politics	41	16.3	226	40.9	46.8	0.0
- non confront and easily overrun by others	51	20.3	243	43.9	41.5	0.0
- It was at a time of personal med life or changes	42	16.7	208	37.6	35.1	0.0
- could not leave the job and the bully knew it	47	18.7	211	38.1	29.9	0.0
- No apparent reason	49	19.5	222	40.1	32.9	0.0
Factors related to the bully (from the side view of the bulied:						
- **need to meet deadline**	229	91.2	334	60.4	78.2	0.0
- **excessive workload**	210	83.7	231	41.8	122.3	0.0
- **keep workers alert and active**	200	79.6	365	66.0	15.5	0.0
- **low performance**	169	67.3	393	71.1	1.1	0.3
- **The bully's personality**	63	25.1	298	53.9	57.8	0.0
- **In revenge**	46	18.3	247	44.7	51.7	0.0
- **Bully had personal problems**	44	17.5	203	36.7	29.8	0.0
- **Result of the bully's promotion**	27	10.7	149	26.9	26.5	0.0
- **The bully was following instructions from boss above**	39	15.5	178	32.2	24.3	0.0

Table (4): Psychosomatic symptoms among the bullied workers before and after the intervention

Psychosomatic disorders	before intervention Total N. = 804		after intervention	
	N.	%	N	%
- **Unexplained fatigue**	**380**	**47.3**	**82**	**10.2**
- **Lack of concentration**	**488**	**60.7**	**95**	**11.8**
- **Insomnia**	**459**	**57.1**	**73**	**9.1**
- **Stress headache**	**429**	**53.4**	**53**	**6.6**
- **Tachycardia**	**424**	**52.7**	**58**	**7.2**
- **Unspecific Body aches—muscles or joints**	169	21.02	57	7.1
- **Migraine**	221	27.5	68	8.4
- **Irritable bowel syndrome**	347	43.1	73	9.1
- **Unspecific chest pain**	166	20.6	46	5.7
- **Uncontrolled essential hypertension**	116	14.4	31	3.8
- **Heart burn accelerated by stress**	231	28.7	43	5.3
- **Attacks of recurrent syncope**	113	14.1	37	4.6
- **Attack of recurrent hypotension**	94	11.7	23	2.9
- **Attacks of itching**	83	10.3	21	2.6
- **Lack of sexual desire**	307	38.2	178	22.1
- **Attacks of vertigo**	217	26.9	85	10.6

Table (5): Manifestations of specific phobia at work among the bullied workers before and after the intervention

Manifestation of specific phobia at work	*before intervention Total N. = 804*		*after intervention*	
	N.	*%*	*N*	*%*
- **Excessive worry (at least since 6 months) about work performance**	*342*	*42.5*	*112*	*13.9*
- **It is difficult to control worry by the bullied himself**	*131*	*16.3*	*23*	*2.9*
- **Worry extend to involve any activity outside work.**	*352*	*43.8*	*117*	*14.5*
- **Complaining multiple unlinked physical complaints.**	*263*	*32.7*	*94*	*11.7*
- **Total cases with specific phobia**	*352*	*43.8*	*117*	*14.5*

Diagnosis was made by at least one manifestation (DSM, 2000)

Table (6): Depression symptoms among the bullied workers before and after the intervention

Depression symptoms	*before intervention* Total N. = 804		*after intervention*	
	N.	*%*	*N*	*%*
- **depressed mode nearly daily**	311	38.7	197	24.5
- **changed appetite nearly daily**	267	33.2	94	11.7
- **feeling of guilt nearly daily**	342	42.5	126	15.7
- **sleep disorder nearly daily**	284	35.3	87	10.8
- **diminished interest in work.**	267	33.2	106	13.2
- **Psychomotor daily agitation**	196	24.4	73	9.1
- **Daily sense of fatigue**	244	30.3	101	12.6
- **Diminished ability to think or concentrate nearly daily**	231	28.7	83	10.3
Total cases of depression	214	26.6	71	8.8

N.B: Diagnosis of depression was made by 5 or more of the above symptoms (DSM, 2000).

Table (7): Manifestations of posttraumatic stress disorder among the bullied workers before and after the intervention

Manifestations of posttraumatic stress	*before intervention* Total N. = 804		*after intervention*	
	N.	*%*	*N*	*%*
- **Recurrent recollection of the event, including images, thoughts, or perceptions.**	254	31.6	163	20.3
- **Recurrent distressing dreams of the event.**	268	33.3	195	24.2
- **Intense psychological distress at exposure to internal or external cues similar to bullying aspect.**	233	28.9	77	9.6
- **Feeling as if the traumatic event were recurring.**	195	24.2	54	6.7

N.B: Diagnosis was made by at least one manifestation(DSM, 2000)

Table (8): Some behavioral characteristic and general characteristics among the bullied workers

Behavioral characteristics	*before intervention* Total N. = 804		*after intervention*	
	N.	*%*	*N*	*%*
- **Accepting the work environment.**	109	13.5	331	41.2
- **Cooperative with the colleagues.**	98	12.2	133	16.5
- **Tendency to post pond**	287	35.7	215	26.7
- **Sense of self confidence.**	176	21.9	196	24.4
General characteristics of bullied workers				
- **Mean age**	35.2 ± 1.3			
- **Sex:**				
Male	763	94.9		
Female	41	5.1		
Education				
Preparatory	454	56.5		
Secondary	267	33.2		
University	83	10.3		
Type of employees				
Blue collar	553	68.8		
White collar	251	31.2		
Special habit:				
smoker	707	87.9		

Table (9): Quality of worklife among the bullied workers

Items of quality of worklife	*Bullied workers(N.= 804)* (Agree)	
	N.	%
- Mandatory to work extra hours many days/week	376	46.8
- Starting and quitting times can be changed easily	0	0.0
- Work at home as part of the job frequently	76	9.4
- Hard to take time off during work for personal matters	431	53.6
- Demands of job interfere with your family life	341	42.4
- Hours are available to enjoy relax after work	64	7.9
- Job requires learning new things	432	53.7
- Job requires work very fast	476	59.2
- Doing a number of different things on my job	376	46.8
- Own satisfaction in life comes from work	33	4.1
- Knowing exactly what is expected of me at work	189	23.5
- Job lets use the skills and abilities	143	17.8
- Treated with respect at the work	165	20.5
- Safety of workers is a high priority with management	114	14.2
- Proud to be working at this organization	658	81.9
- There are not enough staff to get all the work needed	478	59.4
- Chances for promotion are available	61	7.6
- Availability of enough equipments to get the job done	708	88.1
- Availability of enough information to get the job done	235	29.2
- A lot of freedom is present to decide to do work	496	61.7
- The supervisor care the welfare of those under him	101	12.6
- Promotions are handled fairly	31	3.8
- Enough time to get the job done	79	9.8
- The training opportunities are available	543	67.6
- Praising by the supervisor	160	19.9
- Bonus in case of doing well	512	63.7
- Job income alone is enough for the family's needs	739	91.9

Table (10): Quality evaluation of core requirements of bullying control program inside the studied workplace

Bullying control program core requirements **Number of requirements = 16**			
Cores fully implemented 5/16 (31.3%)	**Cores partially implemented 6/16 (37.5%)**	**Cores poorly implemented 3/16 (18.7%)**	**Cores not implemented 2/16 (12.5%)**
■ A commitment from senior management for combating bullying. ■ All workers/employees singed a statement that bullying is unacceptable and will not be tolerated. ■ Definitions of unacceptable behaviors is announced for all workers/employees. ■ Informal complaints procedure are applicable when needed. ■ Regular monitoring every 3 months	■ Steps to assess and prevent bullying are currently implemented. ■ Procedures for investigating complaints are clear and easy. ■ Formal complaints procedures are clear and easy. ■ Procedures for reviewing and monitoring the policy are applied. ■ Access to support and counseling are present. ■ Reporting and recording procedures.	■ Duties of heads of departments and supervisors against bullying are clearly identified. ■ Confidentiality for complainants when they report bullying are secured. ■ Information and training about bullying and the policy were conducted and refreshed regularly	■ Procedures to protect complainants from victimization are implemented ■ The policy covers everyone, including contractors.