Work-Related Violence and Stress: The Case of Taxi Drivers in Turkey

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Abstract

The purpose of this study is to analyses the aggressive behavior that the taxi drivers encounter, because of the nature of their work and the environment that they are working in and to find out the extent of the plundering incidents and the effects of this situation on the level of their work satisfaction, stress, depression, and anxiety. The secondary aim of this study is to find out the differences among violated and non-violated taxi drivers in terms of job satisfaction, stress, depression, and anxiety. The mean age of the participants and the average working years was 40.59±9.49 and 11.39±8.32 respectively. According to the data obtained as a result of this analysis, in the past year, 79% of the taxi drivers encountered verbal violence, 35.2% physical violence, 14.6% harassment/abuse and 31.1% plundering/robbery incidents. In addition, incidents of exposure to aggression, the taxi drivers, reduced the levels of job satisfaction and increased their levels of depression, anxiety, and stress.

Key Words: *Taxi Drivers, Work-related Violence, Stress, Depression, Anxiety, Job Satisfaction.*
JEL Classification: *I 31, L91, Z00*

1. Introduction

Many workers, both women and men experience violence at work, including bullying, harassment and other forms of violence. One of the most important problems encountered in working life is aggressive behavior. Employees carry out their work while they are exposed to aggressive behavior which has a negative impact on health and safety of employees. All professionals are exposed to this kind of aggression or violent behavior, but research shows that certain professions are more apt to be victims of violence.

Violence as old as humanity itself is a phenomenon that we encounter in every area of life both at the individual and social level. According to World Health Organization (WHO), violence; *the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation*. (WHO, 2002: 4). Working life is also among the areas in which violence is experienced most intensely. Workplace violence is defined as any action or incident against workers which causes physical or psychological damage (Wiskow, 2003: 7). According to this, workplace violence involves physical violence as well as psychological violence which is characterized by such actions as verbal aggression, harassment, bullying/mobbing, threats, deliberate interruption while one is speaking, shouting, sending aggressive messages, calling one names (Chappell and Di Martino, 1999:1; Di Martino, 2002:11).

Although everyone is at risk of being exposed to workplace violence, some sectors and occupations are more vulnerable to violence. Research shows that violence is experienced more in the area of healthcare than in any other field (Richards, 2003:3). Apart from healthcare; education, security, service (Aytac et al., 2011) and transportation attract attention as industries in which workplace violence is more common (Essenberg, 2003; Couto and Lawoko). Taxi drivers are at the top of the risk groups.

Violent behavior has several negative effects on workers. The first effect of violence to be felt is the emotional one. In this regard, interaction with the perpetrator of violence is a source of stress and in the long run leads to deterioration in mental and emotional health and to stress-induced somatic symptoms (Merecz, Drabek and Moscicka, 2009:243). As it is suggested by the studies on the issue, exposure to an act of violence causes stress, depression, anxiety, and burnout levels of workers to rise while also leading to a fall in job satisfaction, work commitment and organizational commitment (Van Dierendonck and Mevissen, 2002; Bedi and Schat, 2007; 2008; Herschovis and Barling, 2009; Merecz, Drabek and Moscicka, 2009).

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2. Literature Review

Exposure to violence is a serious risk for taxi drivers. Either due to the nature of occupation itself or due to environmental conditions, taxi drivers serve people who are total foreigners or people they do not know well. They sometimes work in high-crime areas and usually with cash. They also usually work alone. Besides, taxi drivers often work at night or early in the morning as well as in dark or poorly lit areas. These are among the range of factors that increases the risk of violence against taxi drivers (Smith, 2005: 6; Essenberg, 2003: 15).

Research shows that taxi drivers are 15 times more likely to be exposed to violence than other workers (Chappell and Di Martino, 1998: 46) and they are around 60 times more likely to be murdered on the job than other occupations (Essenberg, 2003: 15). In addition, taxi drivers face 4 times more workplace murder than do the police and other security officers (Schwer et al. 2010).

According to OSHA (2000), between 1992 and 1998, 510 taxi drivers were murdered on duty in the USA (Mayhew, 2000: 2). Again in the USA, the number of taxi drivers murdered on the job is estimated to be 425 for the period between 1980 and 1992 (NIOSH, 1996) In addition, between 1999 and 2007, 8 out of every 100,000 taxi drivers in the USA were victims of homicide while on the job (Schwer et al.,2010:7). Taxi drivers are also frequently exposed to forms of violence other than murder. For example, 9 out of every 1,000 taxi drivers are confronted with workplace violence of one type ((rape/sexual assault, robbery, and aggravated and simple assault) in the USA, workplace homicide is 30 times higher among taxi drivers than the overall society (Harrel, 2011: 4).

In EU countries, 14.7% of those working in the area of land transportation are exposed to physical violence, 4.2% face sexual harassment while 1.5% come against discrimination based on gender or race and 7.8% suffer from bullying or harassment, (Schneider et al. 2011:3).

In a study conducted on 74 taxi drivers in Australia in 1997, it was expressed that 75% of the participants had been exposed to verbal violence, 61% to physical assault and 9.5% to robbery in the last 12 months (Radbone, 1997: 4). In a study conducted by McDonough and Steward (2010) on 191 taxi drivers, it was suggested that 51.1% of the participant taxi drivers had been exposed to verbal violence and 20.4% to robbery in the last 12 months.

Some figures can be found in the studies which are limited in number, yet deal with incidents of violence against and robbery of taxi drivers in Turkey. According to 2006 data of the Istanbul Chamber of Automobile Owners, in the last eleven years, 86 taxi drivers were murdered on the job in Istanbul. The same data indicates the number of taxi drivers who were victims of homicide in the last 6 years was 33 in Izmir and 9 in Ankara. Of the 498 public

transportation drivers in Ankara, 37.1% named the drop in the safety of life and 55.2% named violent behavior by passengers as risk factors (Yıldız et al; 2011:37).

Yavuz et al. (2010) investigated robbery-related homicides in the three biggest cities of Turkey between 1996 and 2006 and reviewed crime investigation and autopsy reports as well as security and death records for this purpose. According to this study, 109 taxi drivers, all of whom were male, were murdered during that period. Most of them were killed at night or in the evening and in the suburbs with a firearm. In a study conducted by Bulut et al. (2016) in Turkey, it was reported that 35.1% of all the participant taxi drivers had at least one in their life time been exposed to physical or verbal violence.

3. Methodology

3.1 Aim of Research

The objective of this study is to reveal the prevalence of verbal violence, physical violence, sexual harassment and robbery incidents involving taxi drivers and the effects of these incidents on their stress, depression, anxiety and job satisfaction levels..

3.2 Measures

In this study we used survey method by sampling. Questionnaires were applied in two big cities in Turkey on 144 randomly selected taxi drivers by the researchers. Printed questionnaires were applied via face to face to taxi drivers. Participants answered the questionnaires on a voluntary basis and anonymously.

In the present study, survey method was employed for the collection of data. In the questionaries' form were parts on the demographics of taxi drivers and incidents of violence they went through as well as the below-cited scales to measure job satisfaction and depression-anxiety-stress.

For the Violence Questionnaire, we used "Taxi Driver Security Survey 2007 questionnaires" which was developed Ministry of Transport Australia and "Taxi Driver Survey 2006 Questionnaires" which was used by Victorian Taxi Directorate at Victoria-Australia and translated into Turkish by the authors of this study.

Job satisfaction scale: Job satisfaction was assessed with the 5-item scale developed by, Brayfield & Rothe (1951) and adapted to Turkish by Bilgin (1995). A five-point agree scale was used with choices ranging from ''1 = Completely Disagree '' to ''5= Completely Agree.'' High scores represent high satisfaction. The coefficient alpha was .85.

DASS (Depression-Anxiety-Stress) scale, The Depression Anxiety Stress Scale (DASS) is a promising 42-item self-reporting measure of depression, anxiety, and stress. In this study to assess depression (14 items), anxiety (14 items), and stress (14 items) as aspects of psychological strain, three subscales which were developed by Lovibond & Lovibond (1995) were used. This scale was translated into Turkish by Uncu, Bayram, & Bilgel (2006). The

symptoms of depression, anxiety and stress are measured by 42 statements related to emotional state within the last week. For example, items include ‘‘I get angry’’ for stress, ‘‘I feel nervous’’ for anxiety, and ‘‘I felt sad and depressed’’ for depression. The response choices range from 1 (never or a little) to 4 (most of the time). The Cronbach alpha for the current scale was .90 for Depression and .86 for Anxiety and .81 for stress.

3.3 Procedures

Survey forms were distributed to 200 taxi drivers from around Turkey in line with random sampling method and were returned to the researchers after two days' time. Of the all forms, 144 were returned (return ratio: 72%).

4. Results and Discussion

The participants in this study were 144 taxi drivers in Turkey. The sample of the study included (99.3%) males and (0.7%) females.. 85.4% of the participants were married and 14.6% were single. As to the levels of education, 48.3% were primary school/secondary school graduates, 50.3% were high school graduates and 1.4% of them were university graduates. Of them, 35% were on the night shift, 28.7% were on the day shift while 36.4% were on the rotating shift. The mean age of the participants and the average working years was 40.59±9.49 and 11.39±8.32 respectively.

Table 1: Types of Violence Exposed to Taxi Drivers

Type of violence	The frequency of violence	N	%
Verbal violence	None	30	21
	1-5 times	67	46.9
	6-10 times	20	14
	11 + times	26	18.2
Physical violence	None	92	64.8
	1-5 times	46	32.4
	6-10 times	3	2,1
	11 + times	1	.7
Plundering/ Robbery	None	100	69.9
	1-5 times	41	28.7
	6-10 times	1	.7
	11 + times	1	.7
Harassment/abuse	None	123	85.4
	1-5 times	17	11.8
	6-10 times	1	.7
	11 + times	3	2.1

Table 1 presents the distribution of violence types taxi drivers were exposed to. According to this, 79% of all the participant taxi drivers had been exposed to verbal violence in the previous year. Besides, 35.2% of them had been exposed to physical violence and 31.1% had been confronted with robbery or mugging. Finally, 14.6% of all the participant drivers had been exposed to sexual harassment.

When all the violence types are taken into consideration, it is seen that 89.6% of the participant taxi drivers were exposed to at least one of the four types of violence cited above. Incidents of violence usually occurred after midnight between 24:00 and 08:00.

Table 2: Distribution of Violence Practitioners by Sex

Sex of the perpetrator	Verbal violence	Physical violence	Harassment/ abuse	Plundering/ Robbery
Male	91 (77.1%)	48 (88.9%)	10 (45.5%)	58 (100%)
Female	20 (16.9%)	3(5.6%)	10 (45.5%)	0 (0%)
Both genders	7 (5.9%)	3 (5.6%)	2 (9%)	0 (0%)

Table 2 shows the gender of those who committed violence. It is seen that except for the harassment behaviors, all the other of violence types were perpetrated mostly by men. In this regard, 77.1% of verbal violence incidents, 88.9% of physical violence incidents and 45.5% of harassment behaviors were committed by men. As to the robbery/mugging incidents, all of them (100%) were perpetrated by men.

Table 3: Effects of Violence on Job Satisfaction, Depression, Anxiety and Stress

Scales	***Any Type of Violence***						**t**	**p**
	Exposed			**Not-Exposed**				
	N	**M**	**S.D**	**N**	**M**	**S.D**		
Job satisfaction	129	13.40	4.17	15	19.06	4.21	-4.928	**.000**
Depression	129	11.13	7.24	15	7.26	5.44	2.002	**.047**
Anxiety	129	10.77	6.04	15	7.20	3.66	2.238	**.027**
Stress	129	18.48	5.91	15	16.53	6.10	1.178	.255

M.: Mean; SD: Standard Deviation

According to Table 3, the job satisfaction mean for taxi drivers who had been exposed to at least one form of violence was lower than that of those who had never been exposed to violence. This difference was considered to be statistically significant ($p<0.05$). As to the depression and anxiety levels, the level for those with a history of violence was higher than that of those who had not been exposed to violence ($p<0.05$). Finally, although stress levels of taxi drivers who had been exposed to violence were higher, this difference was not considered to be statistically significant ($p>0.05$).

5. Conclusions and Recommendations

It is clear that although workers from all occupational groups are at risk from workplace violence, some occupations tend to be more vulnerable.

Characteristics most applicable to taxi drivers include the prevalence of cash transactions, working alone, and the availability of escape for criminal perpetrators. These facts alone, nevertheless, offer an insufficient framework for analysis in that they fall to offer a behavioral basis for the occurrence. On the other word, Taxi drivers fall victims to violence more frequently due to the fact that they work late at night or early in the morning, alone and usually with cash. They are exposed to physical and verbal violence and many die mostly as a result of assaults undertaken for the purposes of mugging (robbery).

In the present study, it was found out that 79% of the taxi drivers had been exposed to verbal violence in the last one year while the rates of physical violence and exposure to robbery or mugging were 35.2% and 31.1%, respectively. Finally, 14.6% of them had been subject to sexual harassment. In the study, it was also seen that violence caused job satisfaction to decrease while it caused feelings of stress, depression and anxiety to rise. Furthermore, 82.1% of the participants stated they had witnessed their colleagues fall victims to violence. Apart from these, 77.1% of the verbal violence incidents, 88.9% of the physical violence incidents and 45.5% of the harassment behaviors and all robbery/mugging incidents (100%) were perpetrated by men.

In statistics about violence against taxi drivers, it is a problem that nonfatal incidents particularly verbal violence or incidents that end without any severe injuries are not usually recorded as it is thought that this might cause unnecessary loss of time (Essenberg, 2003: 2). The subject problem in the recording of incidents of violence makes it harder to obtain statistical data on the subject. 79.5% of all the participant taxi drivers admitted not reporting verbal violence to police. This rate was 21% for physical violence, 5% for robbery and 75% for harassment cases. In a study by McDonough and Steward (2010), 35.4% of taxi drivers were found not to report incidents of violence. Shortcomings in Turkey's own reporting culture and the lack of efficient alarm mechanisms as well as legal regulations are important factors that give rise to the afore-mentioned problem.

In conclusion, a unit for taxi drivers' health and security, a written policy regarding the record of violence behavior and work security must be established. Work accident and violence against taxi drivers' reports must be regularly reviewed and necessary changes and institutional arrangements for protection and defense must be made. In order for the taxi drivers to be more productive, a sufficient number of security measures regarding violence must be increased. In order to increase life satisfaction, there must be more efforts to increase the possible socio-cultural and in-service activities in Turkey.

It has also been identified that the already limited measures to reduce incidents of violence against taxi drivers do not suffice to ensure the safety of drivers. In this regard, it is possible to say that current measures against violence are insufficient and remain largely as local measures. However, it is in fact necessary to handle these measures in a multidimensional and comprehensive way. Environmental measures alone (alarm buttons, GPS, security cameras etc.) are not sufficient for this purpose. A range of measures should be made available at the same time including training taxi drivers to recognize threats beforehand or to behave appropriately at times of danger.

References

Başayar Fatma Nur, 2014, Kara Yolu Yolcu Taşımacılığında İş Sağlığı ve Güvenliği (*İş Sağlığı ve Güvenliği Uzmanlık Tez*i / Araştırma) Ankara.

Bedi, A. and Schatz, A.C.H. 2007, Customer Aggression: A Theoretical and Meta-Analytic Review. *ASAC,* 28, 115-128.

Bilgin, N. ,1995, *Sosyal Psikoloji'de Yöntem ve Pratik Çalışmalar.* Sistem Yayıncılık, İstanbul.

Brayfield, A. H., & Rothe, H. F. 1951, An index of job satisfaction. *Journal of Applied Psychology*, 35, 307-311.

Bulut, G.; Karabacak, M.N.; Baysak E., Abus M., Demirel E.; Coskun H.,; Yalcin, B.; Piskin M.T.; Yildiz A.N. 2016, Working conditions of taxi drivers, *Occupation Environment Medicine* Sep 2016, 73 (Suppl 1) A221; DOI: 10.1136/oemed-2016-103951.614. NON-CLINICAL.

Chappell D. ve Di Martino, V. 1999, Violence at Work. *http://www.acosomoral.org/pdf/ violwk.pdf* (cited: 17.07.2015).

Couto M. T. Lawoko S. ve Svanström L. 2009, Violence against Drivers and Conductors in the Road Passenger Transport Sector in Maputo. Mozambique. *African Safety Promotion Journal*, 7 (2), 17-36

Di Martino V. 2002, Workplace Violence in the Health Sector: Country Case Studies. *http://www.who.int/violence_injury_prevention/violence/activities/workplace/WVsynthesisreport.pdf* (cited: 29.11.2015).

Dünyayı Taşıyan Kadınlar, 2010, Uluslararası Taşımacılık İşçileri Federasyonu (ITF) Yayını, Hava-İş, Türkiye Sivil Havacılık Sendikası *http://www.havais.org.tr/_dosyalar/icerik/dunyayi_tasiyan_kadinlar.pdf* (cited: 03.09.2016)

Dursun S., Aytac S.,2014, The Effect of Customer Aggression on Burnout. *Academic Journal of Interdisciplinary Studies* MCSER Publishing, Rome-Italy. Vol 3 No 4 July 2014 369 E-ISSN 2281-4612 ISSN 2281-3993

Dursun, S , Aytaç, S , Akinci, F . 2012, İşe Bağli Şiddet ve Stres: Taksi Sürücülerine Yönelik Bir Uygulama. *Sosyal Siyaset Konferansları Dergisi,* 0 (61), 1-20. Retrieved from *http://dergipark.gov.tr/iusskd/issue/938/10601*

Essenberg, B. 2003, Violence and Stress at Work in the Transport Sector. *İnternational Labour Office*, Genoa. *www.ilo.org/public/english/dialogue/sector/.../transport/wp205.pdf (cited: 02.07.2015).*

Fourth European Working Conditions Survey. 2008, Violence, Bullying and Harassment in the Workplace. European Foundation for the Improvement of Living and Working Conditions, *www.eurofond.europa.eu***.** (cited: 03.04.2015).

Harrel E, 2011, Workplace Violence 1993-2009, National Crime Victimization S urvey and the Census of Fatal Occupational Injuries. Special Report. U.S. Department of Justice Office of Justice Programs *Bureau of Justice Statistics,* March.2011

Hershcovis, M. S. and Barling, J. 2010, Towards a multi-foci approach to workplace aggression: A meta-analytic review of outcomes from different perpetrators. *Journal of. Organizational. Behaviour,* 31: 24–44. doi:10.1002/job.621

Kraus, J. F. 1987, Homicide While at Work: Persons, Industries, and Occupations at High Risk. *American Journal of Public Health* 77(10), 1285-1289

Lovibond, S.H. & Lovibond, P.F. 1995, Manual for the Depression Anxiety Stress Scales. (2nd. Ed.) Sydney: *Psychology Foundation*. ISBN 7334-1423-0.

Mayhew, C. 2000, Violent Assaults on Taxi Drivers: Incidence Patterns and Risk Factors. *Australian Institute of Criminology,* Tirends &İssues, No: 178.

McDonough K., D. Stewart.2010, Workplace Violence against Taxi Drivers, Occupational Health Internship Program (OHIP) New York Taxi Workers Alliance (NYTWA*) NY-Taxi Workers Alliance Final Report* 2 Summer August 2010

Merecz D1, Drabek M, Mościcka A. 2009, Aggression at the workplace--psychological consequences of abusive encounter with coworkers and clients. *International Journal of Occupational Medicine and Environmental Healt*h; 22(3):243-60. doi: 10.2478/v10001-009-0027-2.

National Institute for Occupational Safety and Health (NIOSH). 1996, Violence in the Workplace Risk Factors and Prevention Strategies. *www.cdc.gov/niosh/violcont.html. (cited 29.04.2015)*

OSHA. 2000, Risk Factors and Protective Measures for Taxi and Livery Drivers. U. S. Department of Labor Occupational Safety and Health Administration**.** *http://www.osha.gov/OSHAFacts/taxi-livery-drivers.pdf* (cited: 05.05.2015).

Radbone, I. 1997, "Taxi safety initiatives study", report from, Transport Systems Centre in association with Symonds Travis Morgan consultants, University of South Australia. *http://www.taxi-library.org/ian01.htm* (cited: 04.05.2015).

Richards, J. 2003, Management of Workplace Violence Victims. *http://www.who.int/violence_injury_prevention/violence/interpersonal/en/WVmanagementvictimspaper.pdf***.** (cited. 05.12.2015)

Schneider E.; Irastorza X. 2011, OSH in Figures: Occupational Health and Safety in the Transport Sector - An Overview, Luxembourg: *European Agency for Safety and Health at Work*.

Schwer, R. K., Mejza, M. C. ve Grun-Rehomme, M. 2010, Workplace violence and stress: the case of taxi drivers. *Transportation Journal,* 49 (2) *http://www.freepatentsonline.com/article/Transportation-Journal/227945363.html* (cited: 01.04.2015).

Smith, M. J. 2005, *Robbery of Taxi Drivers. Problem-Oriented Guides for Police Problem-Specific Guides Series*, No: 34.

Taxi Driver Security Survey, 2007, Ministry of Transport Australia, *Traverner research.* August 2007 TRC 2581. *http://www.transport.nsw.gov.au/sites/default/file/taxi/taxi-safety-taskforce-final-report-appendix-a.pdf.* (cited. 01.11. 2015).

Taxi Driver Survey, 2006, *http://www.taxi-library.org/survey.htm* (cited: 01.11. 2014).

Uncu Y.; Bayram, N. ve Bilgel N. 2006, Job Related Affective Well-Being among Primary Health Care Physicians. *European Journal of Public Health*. 17(5), 514-519.

Van Dierendonck, D., & Mevissen, N. 2002, Aggressive behavior of passengers, conflict management behavior, and burnout among trolley car drivers. *International Journal of Stress Management*, 9, 345-355

Wiskow, C. (2003). Guidelines on Workplace Violence in the Health Sector: Comparison of Major Known National Guidelines and Strategies: United Kingdom, Australia, Sweden, USA (OSHA and California).*http://www.who.int/violence_injury_prevention/violence/interpersonal/en/WV_Comparison Guidelines.pdf* (cited: 17.07.2015).

World Health Organization (WHO). 2002, World Report on Violence and Health: Summary. *http://www.who.int/violence_injury_prevention/violence/world_report/en/summary_en.pdf* (cited: 30.06.2015)

Yavuz, M.S; Aşırdizer, M.; Cantürk, N.; Eraslan, Ş. B. ve Karadeniz, Z. 2010, Robery Related Homcides of Taxi Drivers in Three Big Cities of Turkey Between 1996-2006*. Trakya Üniversitesi Tıp Fakültesi Dergisi*, 27 (1), 59-64.

Yıldız, A. N.; Kaya M.; Bilir, N. 2011, *İşyerinde Şiddet,* (Work Place Violence) TİSK, Ankara,
http://www.taxi-library.org/barb2004.htm **(**cited: 12.01.2016).
http://www.taxi-library.org/gord28.htm (cited: 12.01.2016).