

ORIGINAL RESEARCH

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Elder homicide in Eskisehir**Kenan Karbeyaz¹, Emrah Emiral², Gulsum Ozturk Emiral³**¹*Eskisehir Osmangazi University Faculty of Medicine, Department of Forensic Medicine, Eskisehir, Turkey*²*Council of Forensic Medicine Eskisehir Branch Manager, Eskisehir, Turkey*³*Eskisehir Osmangazi University Faculty of Medicine, Department of Public Health, Eskisehir, Turkey*

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Abstract

Elderly deaths due to homicide are not so common, but they are also increasingly exposed to acts of violence due to the increase of the elderly population all over the world. The elderly are more vulnerable to acts of violence. In this study, it was aimed to collect data retrospectively on the elderly murders committed in the last 20 years in Eskisehir. In the study, case files belonging to judicial qualifications were examined individually in the 20 years period between 1997 and 2016 in Eskisehir. Those who were over 65 years of age were included in the study. The data were recorded in the form of a review prepared in accordance with the purpose. Socio-demographic characteristics of the elderly and crime scene, murder method-tool, autopsy findings, and autopsy findings about investigation were included in the examination form. 10 (76.9%) of the cases were male. It was determined in the elderly that the most frequent use as a means of murder ($n = 7$, 53.8%) were firearms, there was a closeness of the victim to the killer in all known cases, the most common crime scenes were victim's homes and chronic physical abuse in three cases. It has been learned from the investigation file that all victims of homicide have been subjected to long-term physical abuse of the victims of the murder. It is thought that the fight against elder physical abuse is important in the prevention of elderly murders.

Keywords: Elderly, homicide, physical abuse, autopsy, Forensic medicine**Introduction**

Murder being a common case in forensic medicine is important for all the societies [1,2,3,4,5]. It has been reported that in different studies, victims were often young males and that the use of cutting tools and firearms is the most common with regional differences [6,7,8,9,10,11,12]. It is thought that the characteristics of the elderly murders differ from those of the general murders. Among older deaths, the frequency of deaths from murders is low [13,14,15,16]. A study in South Carolina reported that 2137 elderly deaths occurred over a 20-year period, of which 127 (5.9%) were murdered, which was reported to be lower than natural death, accident, and suicide mortality proportions [13]. It is understood that the geriatric age group is the age group that is less exposed to the murder than the other age groups in the studies related to the murder [17,18].

It has been reported in the literature that elderly murders are usually committed by relatives of the victim and may be a consequence of elder abuse [13,14,19,20,21,22]. In the study conducted in the United States, it has been shown that the frequency of elderly murders varies between one and 5.4 per 100,000 people, and this frequency is increasing in recent years [15].

Elderly deaths due to homicide are not so frequent, but they are also increasingly exposed to acts of violence due to the increase of the elderly population all over the world.

The proportion of elderly population in Turkey was 8.2% compared to that of 2015, while the proportion of elderly population in Eskisehir was 10.5% [23]. As a result of the literature review, it was seen that there were no studies evaluating the elderly murders only in our country. In this study, it was aimed to collect data retrospectively on the elderly murders committed in the last 20 years in Eskisehir, which were over the country percentages, and to determine the demographic features and autopsy findings of the murders.

Material and Method

This study is a descriptive type of study carried out in the province of Eskisehir in 2017.

Eskisehir is a city with a population of 826,716 people in Central Anatolia. 412,205 (49.86%) of the population are males, 414,511 (50.14%) are females. The percentage of elderly population is approximately 10.5, which is higher than the average of Turkey (8.2) [3].

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In order to be able to study, the official decision was taken from the Eskisehir Osmangazi University Non-Interventional Clinical

Ethics Committee on 22.02.2017 date for 37 number of the board decision and the Eskişehir Justice Prosecutor's Office.

In the study, case files and investigation papers belonging to judicial qualifications were examined individually in Eskişehir in the 20 years period between 1997 and 2016, using the data of the Directorate of Forensic Medicine Branch of Eskişehir. Elderly murders of those over 65 years old, who died due to the murder and applied forensic autopsies were included in the study. When an autopsy is applied at our branch, all of the investigation is examined and the autopsies are carried out afterwards. In the investigation, the findings of the crime scene, photographs of the crime scene, the expressions of their close relatives and eyewitnesses, and the story of the incident are available.

The data were recorded in the form of a review prepared in accordance with the purpose. In the examination form, sociodemographic characteristics such as age, gender, marital

status, education status, where and with whom the victim lived, the economic situation, the scene of the murder, the autopsy findings, and the autopsy findings about the investigation were included.

Using the IBM SPSS (Version 20.0) package program, the obtained data were analyzed and the descriptive statistical data were analyzed and Chi-square analysis was performed.

Results

It has been determined that a total of 7118 autopsies were carried out by Eskişehir Forensic Medicine Branch Directorate during the 20-year period covered by the study, 689 of them (9.7%) were murdered and 13 of them (1.9%) were 65 years of age or older.

It was determined that 10 (76.9%) of the cases were male and three (23.1%) were female. The distribution of age group, crime scene, place of residence, type of murder, blood alcohol level evaluations according to sex are presented in Table 1.

Table 1. Distribution by age group, crime scene, murder type, proximity of the killer and alcohol level by sex

	Male		Female		Total	
Age Group	n	%	n	%	n	%
65-69	4	40,0	2	66,7	6	46,1
70-74	3	30,0	1	33,3	4	30,8
75-79	2	20,0	0	0,0	2	15,4
>80	1	10,0	0	0,0	1	7,7
Residency						
Village	5	50,0	1	33,3	6	46,1
Small town	3	30,0	1	33,3	4	30,8
City Centre	2	20,0	1	33,3	3	23,1
Type of murder						
Firearm	6	60,0	1	33,3	7	53,8
Cutting-drilling tools	2	20,0	1	33,3	3	23,1
Blunt trauma	1	10,0	1	33,3	2	15,4
Blunt trauma+Throttling	1	10,0	0	0,0	1	7,7
Proximity between murder and victim						
Neighbor	3	30,0	1	33,3	4	30,8
Relatives (2. Degree and distant)	4	40,0	1	33,3	5	38,4
Son	2	20,0	0	0,0	2	15,4
Wife or husband	0	0,0	1	33,3	1	7,7
Unknown	1	10,0	0	0,0	1	7,7
Alcohol level in the blood						
No alcohol	5	50,0	3	100,0	8	61,5
0-50 mg/dl	2	20,0	0	0,0	2	15,4
50-100 mg/dl	2	20,0	0	0,0	2	15,4
100-150 mg/dl	1	10,0	0	0,0	1	7,7
Crime Scene						
Home	5	50,0	2	66,7	7	53,9
Field, garden, open field	4	40,0	1	33,3	5	38,4
Coffee house	1	10,0	0	0,0	1	7,7
Cause of murder						
Hostility, discussion	2	20,0	0	0	2	15,4
Theft	2	20,0	1	33,3	3	23,1
Family violence	2	20,0	1	33,3	3	23,1
Unknown	4	40,0	1	33,3	5	38,4
Total	10	100,0	3	100,0	13	100,0

The most common cases were between 65 and 69 years of age and the mean age was 73 ± 5.4 years. It was detected that the cases happened most frequently in the villages and rural areas ($n = 6$, 46.1%), four cases (30.8%) were found in the small towns, and three cases (23.1%) were found in the city center.

It was detected that firearms were used most frequently as a means of murder ($n = 7$, 53.8%). three cases (23.1%) were injured by cutting-drilling tools, two cases (15.4%) were blunt trauma, one case (7.7%) was joint effect of blunt trauma and throttling.

When the proximity of the murderer and the victim was evaluated, it was determined that the identity of the one murderer (7.7%) was unknown, and that in all the remaining cases, the murderer was close to the victim.

In five cases (38.4%) the murderer was identified as the second degree and more distant relative of the victim. In three of these cases, the cause of the murder could not be determined. In one case it was determined that the victim was killed by a relative after the theft. In one case, it was determined that murder was committed because of an hostility belonging to the past.

It was determined that the murderers (30.8%) were neighbors in four cases. In two of these cases, it was determined that the elderly were killed after theft. In one case, it was determined that the victim was killed of the fighting that was caused by the field issue. The cause of the murder committed by the neighbor was unknown in one case.

In two cases (15.4%), victims were determined to be murdered by their sons. It was determined that both of the cases killed by his son were male. It has been determined that in these two cases there have been conflicts between them due to familial and economic reasons for a long time and that the two elderly who have been killed have been assaulted by their sons before.

It was determined that one of the three cases of women was killed by her husband, the woman was constantly exposed to violence from her husband, and finally the victim was hit by her husband with a stick her head.

It was determined that the events ($n = 7$, 53.9%) occurred most frequently at home. In five cases (38.5%), it was determined that alcohol was detected in the blood.

It was determined that five of the murders committed with firearms were processed by hunting rifles. It has been determined that four of the murders with hunting rifles were in the villages and one in the town.

Discussion

It has been reported that the elderly murders are increasing with the increase of the elderly population [13,15,16,21,24,25]. It has been reported that 5.9% ($n = 127$) of all elderly deaths in South Carolina during the 20-year period were attributable to murder [13]. It has been reported that 615 murders have occurred in 15 years in northern Portugal and 13% of them were in the elderly population [21]. In a study conducted in Aydin in the 5-year period between 2003 and 2007, it was reported that 7.4% of the deaths in the elderly population was caused by murder, and in another study in Adana 3.7% of all murders were in the age of 60 years or above [17,24]. In our study, it was determined that there were

689 murders in Eskisehir in 20 years period, and 13 (1.9%) of these murders were found to be 65 years old or above. While there does not exist any study covering all the cities in our country, differences between cities can be explained by the existing different sociocultural structures and different population structures.

In the studies on elderly murders, victims were reported generally to be men [13,15,21]. In Portugal, 58% of victims of homicide was reported to be men [21]. In our study, 10 (76.9%) of the cases were male and three (23.1%) were female.

In elderly murders, it was reported that the killer was usually from the immediate vicinity [13,21,22,25,26]. In the present study, it was determined that all of the determined killers were close and familiar, except for one case where the killer could not be identified. It was determined that the victim was killed by the sons of the victims in two cases (15.4%) while the victim was the second degree and more distant relative in five cases (38.4%) and the neighbors (30.8%) in four cases. It was determined that the two cases killed by his son were male. It has been determined that there has been a long disagreement between them due to familial and economic reasons, and that the two elderly who have been killed have been assaulted by their sons before. One woman was also exposed to violence continuously, and was hit with a stick by his husband. In total, three cases were physical abuse reflected to the judicial authorities and it was determined that elderly people were killed by abusers. In studies conducted on elder abuse, it has been reported that family members and their relatives attack mostly older people [27-32]. In a study by Ghodousi and his colleagues, all of the elders were exposed to the violence by acquaintance and 44.1% of the cases were exposed to violence by the victim's son [31]. In the study conducted in Chicago, it was determined that 6.1% of the victims of the murders was killed by their sons [26]. In a study conducted by Kennedy and his colleagues, it was reported that 12.5% of victims of murder was killed by their husbands, and all the cases killed by their partners were killed by their husbands [25]. Especially the domestic murders of the elderly should be evaluated in terms of old age abuse. Despite the applications made to the legal authorities, these individuals continued to live in the same house, were killed. In studies conducted, it was determined that the elderly became victims of the murder most frequently in their own homes [13,25,26]. The victim was being attacked in the home in both of the theft and domestic elderly abuse cases. In the present study, it was also determined that the events most frequently occurred at home ($n = 7$, 53.9%). When an elderly person is found to be abused, it is considered to take necessary protective measures and the elderly should be placed in a nursing home. There is a lack of practice in this regard.

In a study by Collins et al., 46% of the elderly were killed by theft [13]. In elderly murders during robbery, it was reported that the killer was often the person who knew the environment and the victim [25,26]. In the present study, it was determined that three cases (23.1%) of the elderly were killed due to the theft. It has been determined that all the theft cases were carried out by neighbors or relatives.

In our study, it was determined that most of the cases occurred in villages, small towns and districts ($n = 10$, 76.9%). Therefore, it was determined that the hunting rifle was used frequently ($n = 5$, 38.4%). In villages and towns, there may be debate between

neighbors or relatives due to the issue of land or other meets. In the present study, two cases (15.4%) were reported to have committed murder because of such hostilities. It has been determined that one of these cases was in the village and the other was in the town and that the parties are relatives in one and neighbors in the other event.

It has been learned from the investigation file that all victims of homicide have been subjected to long-term physical abuse in domestic murders. It is thought that fight against elderly physical abuse is important in the prevention of elderly murders. Emergency physicians played an important role in the detection of abuse [19,27,32,33,34]. Since the aggressors are mostly relatives, it is difficult to detect the abuse. In a study about elder physical abuse, in 41.5% cases physical injury had been located by the doctor during the examination for other health problems and was reported to judicial authorities [33]. In this context, it was thought that awareness trainings should be given to emergency workers and primary health care workers in terms of elderly abuse. It was determined that no protection measurements were taken for the elderly who were abused that were evaluated within the scope of the study. It is considered that programs applied for women and children should also be applied to the elderly, should be developed for the treatment of the abused seniors, and for the maintenance of their care in the social centers.

Conclusion

As a result, in the study presented, it was determined that the victims of homicide were mostly male, mostly killed due to firearm injuries and at home of the victim most frequently. In rural areas such as villages and towns, the aggressions among neighbors or relatives seem to be the target of the elderly because they are more unguarded and vulnerable.

Competing interests

The authors declare that they have no competing interest.

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References

- Allgulander C, Nilsson B. Victims of criminal homicide in Sweden: a matched case-control of health and social risk factors among all 1,739 cases during 1978–1994. *Am J Psych*. 2000;157:244-7.
- Weibe DJ. Homicide and suicide risks associated with firearms in the home: a national case-control study. *Ann of Emerg Med* 2003;41(6):771-82.
- Mian A, Mahmood SF, Chotani H, et al. Vulnerability to homicide in Karachi. *Int J Epidemiol*. 2002;31(3):581-5.
- Dahlberg L, Ikeda RM, Kresnow M. Guns in the home and a risk of violent death: findings from a national study. *Am J Epidemiol*. 2004;160(10):929–36.
- Outwater AH, Cambell JC, Mgaya M, et al. Homicide deaths in Dar es Salaam, Tanzania. *Int Journ Inj Contr Saf Promot*. 2005;15(4):243-52.
- Cardona M, Garcia HI, Giraldo CA, et al. Homicides in Medellin, from 1990 to 2002: victims, motives and circumstances. *Cad Saude Publica*. 2005;21(3):840-51.
- Ziraba AK, Kyobutung C, Zulu EM. Fatal injuries in the slums of Nairobi and the risk factors: results from a matched case-control study. *J Urban Health*. 2011;88:256-65.
- Meel BL. Homicides trends in the Mthatha area between 1993 and 2005. *S Afr Med J*. 2008;98(6):477-80.
- Cooper A, Smith EL. Homicide trends in the United States, 1980–2008. Washington DC: US Department of Justice; 2011.
- Lim M, Ganpat S, Granath S, et al. Homicide in Finland, the Netherlands and Sweden: first findings from the European monitor. *Homicide Stud*. 2013;17(1):75-95.
- Cocks J, Saayman G. The incidence, pathology of trauma and victim profiles of homicide death in Pretoria, South Africa (2007–2008). *Med Sci Law*. 2013;53(2):61–6.
- Matzopoulos RG, Thompson ML, Myers JE. Firearm and non-firearm in South African cities: a retrospective population-based study. *Am J Public Health*. 2014;104(3):455–60.
- Collins KA, Presnell SE. Elder homicide: a 20-year study. *Am J Forensic Med Pathol*. 2006;27(2):183-7.
- Salari S, Maxwell CD. Lethal intimate partner violence in later life: understanding measurements, strengths, and limitations of research. *J Elder Abuse Negl*. 2016;28(4-5):235-62.
- Feldmeyer B, Steffensmeier D. Patterns and trends in elder homicide across race and ethnicity, 1985-2009. *Homicide Stud*. 2013;17(2):204-23.
- Cheung G, Hatters Friedman S, Sundram F. Late-life homicide-suicide: a national case series in New Zealand. *Psychogeriatrics*. 2016;16(1):76-81.
- Hilal A, Cekin N, Gülmen MK, et al. Homicide in Adana, Turkey: a 5-year review. *Am J Forensic Med Pathol*. 2005;26(2):141-5.
- Cros J, Alvarez JC, Sbidian E, et al. Homicidal deaths in the Western suburbs of Paris: a 15-year-study. *Am J Forensic Med Pathol*. 2012;33(4):404-9.
- Piel J. Expanding slayer statutes to elder abuse. *J Am Acad Psychiatry Law*. 2015;43(3):369-76.
- Koehler SA, Shakir AM, Omalu BI, et al. Cause of death among elder homicide victims: a 10-year medical examiner review. *J Forensic Nurs*. 2006;2(4):199-202,4.
- Coelho L, Ribeiro T, Dias R, et al. Elder homicide in the north of Portugal. *J Forensic Leg Med*. 2010;17(7):383-7.
- Falzon AL, Davis GG. A 15 year retrospective review of homicide in the elderly. *J Forensic Sci*. 1998;43(2):371-4.
- Turkish Statistical Institute. Elderly Statistics 2014. Published no: 4365. Ankara: Turkish Statistical Institute Press; 2014:1-6. access date:22.12.2016.
- Erel Ö, Aydın Demirağ S, Katkıcı U. Homicide and suicide in the elderly: data from Aydın. *Turkish J Geriatr*. 2011;14(4):306-10.
- Kennedy LW, Silverman RA. The elderly victim of homicide. *The Sociological Quarterly*. 1990;31(2):307-19.
- Fazel S, Bond M, Gulati G, et al. Elderly homicide in Chicago: a research note. *Behav Sci Law*. 2007;25(5):629-39.
- Johannesen M, LoGiudice D. Elder abuse: a systematic review of risk factors in community-dwelling elders. *Age and Ageing*. 2013;42(3):292-8.
- Aliustaoğlu S, Yazıcı YA. Elderly abuse. *J Foren Med*. 2002;16:28-39.
- Devons CA. Comprehensive geriatric assessment: making the most of the aging years. *Curr Opin Clin Nutr Metab Care*. 2002;5(1):19-24.
- Cooper C, Selwood A, Livingston G. The prevalence of elder abuse and neglect: a systematic review. *Age Ageing*. 2008;37(2):151-60.
- Ghodousi A, Maghsoodloo S, Hoseini SM. Forensic aspect of elder abuse: risk factors and characteristics. *J Res Med Sci*. 2011;16(12):1598-604.
- Karimi M, Elahi N. Elderly abuse in Ahwaz city and its relationship with individual and social characteristics. *Salmand*. 2008;3(7):42-6.
- Karbeyaz K, Çelikel A. The elder physical abuse reflected in judicial authorities in Eskisehir. *Arch Gerontol Geriatr*. 2017; 73:284-287.
- Aas G. The Norwegian police and victims of elder abuse in close and familial relationships. *J Elder Abuse Negl*. 2017 17:1-22.