# Violence and other reasons as cause of death in women

Kadınlarda ölüm nedeni olarak şiddet ve diğer faktörler

#### Celal Bütün, Muhammet Can, Halis Dokgöz, Nurşen Turan, Şevki Sözen

Department of Forensic Medicine (Assist. Prof. C. Bütün, MD), Cumhuriyet University School of Medicine, TR-58140 Sivas; Department of Forensic Medicine (Assist. Prof M. Can, MD), Yüzüncü Yıl University School of Medicine, Van; Department of Forensic Medicine (Assoc. Prof. H. Dokgöz,MD), Mersin University School of Medicine, Mersin; Department of Forensic Medicine (Assist. Prof. N. Turan, MD), Karadeniz Technical University School of Medicine, Trabzon; Department of Forensic Medicine (Prof. Ş. Sözen, MD), Istanbul University Istanbul School of Medicine, Istanbul

#### Abstract

Aim. Violence against women resulting in death is an important problem facing us in the society and community. This study aimed to determine the socio-economic, socio-cultural and demographical characteristics, compositions of committed violence and cause of death of the victims to display and interpret a profile of the assailants. Methods. Data of 40 women who underwent autopsy at the Department of Morgue Specialization, Forensic Medicine Institute were evaluated between the dates of 1 January 2002 and 1 June 2002. Relatives of the victims were contacted and initial interview forms were arranged according to the victims and assailant profile. Results. Seventeen (42.5%) of the cases were aged between 19-30 years and 12 (30.0%) between 31-40 years. Educational status was primary school in 33 (82.5%), university degree in one and no education in six cases. While 27 (67.5%) of the cases had a child, 13 (32.5%) of the cases were childless. Ten of the victims (25.0%) had two child, nine (22.5%) had three, five (12.5%) had one and three (7.5%) had five and more children. Crime scene was a home in 34 (85.0%) cases, office in one, street and empty property in five. Conclusions. Violence against women requires a teamwork including not only forensic medicine specialists but also other medical specializations, lawyers, security forces and democratic mass organizations to be recognized. We believe that a comprehensive approach including the prevention of violence-associated deaths in women and rehabilitation processes is necessary.

Keywords: Violence, women, death, forensic medicine.

#### Özet

Amaç. Ölümle sonuçlanan kadına yönelik şiddet, sosyal ve toplumsal yaşamın önemli sorunları olarak karşımızda durmaktadır. Bu çalışmada, saldırıya uğrayan kişinin, sosyoekonomik, sosyokültürel ve demografik özellikleri, uğradığı şiddetin niteliği, ölüm şekli ve ölüm nedeni belirlenerek bir saldırgan profili ortaya konarak yorumlanması amaçlanmıştır. Yöntem. Ocak-Haziran 2002 tarihinde Adli Tip Kurumu Morg İhtisas Dairesi'ne getirilerek otopsisi yapılan 40 kadın olgu incelendi. Olguların yakınları ile görüşülerek, hem kendileri, hem de saldırgan profiline göre ön görüşme formları hazırlandı. Bulgular. Olguların, 17'sinin (%42,5) 19-30 yaş grubunda ve 12'sinin (%30) 31-40 yaş grubunda olduğu tespit edildi. Olguların 33'ünün (%82,5) ilköğretim, altısının eğitimsiz ve birinin de üniversite mezunu olduğu, 27'sinin (%67,5) çocuk sahibi olduğu ve 13'ünün (%32,5) ise çocuk sahibi olmadığı, 10'unun (%25) iki çocuk, dokuzunun (%22,5) üç çocuk, beşinin (%12,5) tek çocuk, üçünün (%7,5) beş ve üstü çocuk sahibi oldukları, 13'ünün (%32,5) ise çocuk sahibi olmadıkları tespit edildi. Olay yeri açısından olguların 34'ünün (%85) evde, birinin iş yerinde ve beşinin sokak ve boş arazi gibi diğer yerlerde geçtiği belirlendi. Sonuclar. Kadına yönelik siddet, yalnızca adli tıp uzmanlarının değil diğer hekim grupları, hukukçular, güvenlik güçleri ve demokratik kitle örgütlerinin de içinde yer alacağı bir ekip calısması ile tanı konulması gerekmektedir. Ülkemizde, siddet nedeniyle kadın ölümlerinin önlenmesi için, yapılan çalışmaların kapsamlı bir bakış açısına sahip olmasını ve aynı zamanda rehabilitasyon sürecini de kapsayan bütüncül bir yaklaşım gerektiğini düşünüyoruz.

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## Corresponding author:

Dr. Celal Bütün, Adli Tıp Anabilim Dalı, Cumhuriyet Universitesi Tıp Fakültesi, TR-58140 Sivas. Email: celalbutun@yahoo.com

# Introduction

Many women do not seek help or report experience of violence to legal authorities and only a minor part of these criminal actions are reflected to the judicial system. Therefore, valid data about the actual status of violence against women is hard to obtain [1]. The examination of living victims of sexual assaults is the province of the forensic physician or 'police surgeon', in places where such doctors exist. In many countries, any physician may be asked by the police to examine the victim of an alleged sexual offence, but this difficult and onerous task in the living victim is outside the experience of many pathologists-though in some jurisdictions, this function is combined with that of the forensic pathologist [2].

Medical awareness has risen in the last 30 years about violence against a woman who was a rare topic of discussion of the medical world 50 years ago. The first law determining violence against women as a criminal act was established in Maryland in 1883. It was legal to beat the spouse until 1884 in the United States of America [3, 4].

This study aimed to discuss the topic through determining the socio-economic, sociocultural and demographical characteristics of cases resulting in death among women subject to violence or committing suicide as a result of violence, compositions of committed violence and manner and cause of death with regard to the profile of the assailants.

# Materials and methods

In this study, cases of death related with violence against 48 women aged 18 and above were evaluated. These cases were admitted to the Department of Morgue Specialization, Forensic Medicine Institute between the dates of January-June 2002. Relatives of the cases were contacted before autopsy and initial interview forms were conducted after informed consent was obtained. Interviews took approximately 20-30 minutes. Relatives of 48 cases subject to violence were contacted and eight cases were excluded from the study because of missing data from the hospital or the court.

Relatives of the cases were evaluated regarding sex, age and degree of relation. Cases were evaluated regarding age, place of birth, occupation, education, income, substance addictions, domestic violence history, personal and family history, family status, marital status, life style, number of children, history of violence against children, number of brother and sisters and birth rank. According to the profile of the assailant, acquaintance with the assailant, sex, education and psychiatric medical records; history of violence before the event, official admissions, and medical admissions, knowledge about the assailant being a threat, address, and time of the crime were addressed in the initial interview forms. Forensic investigation reports of the autopsies were obtained from the offices of public prosecutions and courts. In addition, data about medical procedures of cases obtaining treatment were acquired from the hospital records. Age, manner of the event, external examination and autopsy findings, genital examination findings and chemical, physical, biological, and histopathological laboratory results, causes and origins of death of the autopsy-performed cases were investigated. The results of the autopsies were evaluated together with the initial forms, reports from the offices of public

prosecutions and courts and medical records.

## Results

### Interviews with the relatives of the cases

Relatives of 40 cases were contacted and invited to conduct an initial survey form that was designed previously. Of these, 36 (90.0%) were males and four (10.0%) were females. The degree of relation was relatives in 30 (75.0%) cases, children of the deceased in six (15.0%), spouse in two and acquaintance in two cases. Domestic violence was reported in 10 (25.0%) victims, eight (20.0%) had a history of tobacco use, one was using alcohol and 31 (77.5%) had no history of substance abuse.

## Profile of the cases

Seventeen (42.5%) cases were aged between 19 and 30 years, 12 (30.0%) were aged between 31 and 40 years. Of the cases, 18 (45.0%) were born in a village, 15 (37.5%) in a district and seven (17.5%) in a city. The profession of the cases was housewife in thirty-five (87.5%) cases, private sector employee in three cases, student in one case and one case was not determined. Educational status was primary school in 33 (82.5%), university degree in one and no education in six cases. In ten (25.0%) cases an organic disease and in six (15.0%) cases a psychiatric disease was known. Four had history of official and two of medical admissions in the pre-violence period (Table 1)

Table 1. Distribution	of age, pla	ce of birth	, occupation,	education,	diseases, and	previous
admissions.						

Age (years)	n	%	Place of birth	n	%
19-30	17	42.5	Village	18	45
31-40	12	30	County	15	37.5
41-50	3	7.5	City	7	17.5
51-60	4	10	-	-	-
61>	4	10	-	-	-
Total	40	100.0	Total	40	100.0
Occupation	n	%	Education	n	%
Housewife	35	87.5	Primary	33	82.5
Private sector	3	7.5	No education	6	15
Student	1	2.5	University	1	2.5
No data	1	2.5	-	-	-
Total	40	100.0	Total	40	100.0
Disease	n	%	Previous admissions	n	%
Organic	10	25	Official	4	10
Psychiatric	6	15	Medical	2	5
None	24	60	None	34	85
Total	40	100.0	Total	40	100.0

# Family status of the cases

Of the cases, 33 (82.5%) were living with their families and seven were living alone. It was determined that 22 (55.0%) cases had married once, two had married twice, seven were not married, seven were divorced and there was no information about two cases.

While 27 (67.5%) of the cases had a child, 13 (32.5%) of the cases had no children. 10 (25.0%) of the victims had two child, nine (22.5%) had three five (12.5%) had one and three (7.5%) had five and more children. The number of sisters and brothers was four and above in 17 (42.5%) cases, three in 13 (32.5%) cases, two in seven (17.5%) cases and one in two cases. One case had no sister or brother. One case had a step mother and two cases had step fathers (Table 2)

Marital status	n	%	Number of children	n	%
First marriage 22 55		No child		32.5	
Single 7 17.5		Two children		25.0	
Divorced	7	17.5	Three children	9	22.5
Second marriage	2	5.0	One child		12.5
No data	2	5.0	5>		7.5
Total	40	100.0	Total	40	100.0
Life style	n	%	Sisters and brothers	n	%
Living with family	33	82.5	4>	17	42.5
Single	7	7.5	Three	13	32.5
Total	40	100.0	Two		17.5
			One	2	5.0
			None	1	2.5
			Total	40	100.0
Mother	n	%	Father	n	%
No step mother	39	97.5	No step father	38	95.0
Step mother	1	2.5	Step father	2	5.0
Total	40	100.0	Total	40	100.0

Table 2. Distribution of marital status, number of children, life style, sisters and brothers, mother and father relations of the cases.

#### Profile of the assailants and causes of the events

While 15 (37.5%) of the assailants were of known identity, five (12.5%) were unknown. In twenty (50.0%) cases cause of death was reported as hanging and unknown reasons. Two of the assailants were reported to have a psychiatric disease over six months and medical treatment. Of the assailants, 14 (93.3%) were males and one was female and educational status was primary school in 13 (61.9%) cases, one was illiterate and no data was available in five cases. Crime scene was home in 34 (85.0%) cases, office in one and street and empty property in five cases. Time analysis revealed that 15 (37.5%) events happened in the morning, eleven (27.5%) at noon, nine (22.5%) in the evening and five (12.5%) at night. Cause of event was reported as hanging in eleven (27.5%), shotgun associated injury in nine (22.5%), stab wounds in nine (22.5%), physical assault in three (7.5%), fall from height in three (7.5%), substance abuse in three (7.5%) cases and strangling with the hands in one and burns in one case (Table 3)

Table 3. Distribution of the cases according to cause and time.

Cause	n	%	Time	n	%
Hanging	11	27.5	Morning	15	37.5
Shotgun injury	9	22.5	Noon	11	27.5
Stab wounds	9	22.5	Evening	9	22.5
Physical assault	3	7.5	Night	5	12.5
Fall from height	3	7.5	Total	40	100.0
Substance abuse	3	7.5			
Strangle with hands	1	2.5			
Other (Burns)	1	2.5			
Total	40	100.0			

#### External examination, autopsy and laboratory results

External examination revealed soft tissue trauma and marks due to hanging in seven (17.5%) cases. Upon autopsy, injuries were detected on the throat in 13 (32.5%), on the head in nine (22.5%) and on the chest and other parts of body in three (7.5%) cases. Findings on autopsy related with sexual assault disclosed that no vaginal and anal examination was necessary in 24 (60.0%) cases while no finding could be found at

vaginal and anal examination in 16 (40.0%) cases. Microscopic examination of anal and vaginal smears disposed spermatozoids in three cases, and in one case male DNA samples were exposed from the material obtained under a nail. Analysis of blood, urine and internal organ parts revealed ethanol in two cases, organic sulfur and phosphor compounds in one case and opipramol containing chemical substance in one case. Upon histopathological examination, myocardial hypertrophy in four cases, diffuse pulmonary edema and intra-alveolar hemorrhage in seven cases, hyperemia in the brain and cerebellum in six cases, atrophy in the brain in one case, subarachnoid hemorrhage in one case, severe parenchyma destruction in the medulla spinalis in one case, cirrhotic changes in the liver in one case, intra-epidermal disruption in the skin in one case, fresh hemorrhage in the muscle and connective tissue taken from the neck and findings in concordance with second trimester placental changes in one case was detected. Examination of the clothes exposed gunpowder remnants and close firing of the shotgun in three cases. Evaluation of the origins revealed suicide in 20 (50.0%) cases, murder in 17 cases, and accident in two cases and insufficient information to decide in one case.

# Conclusion

In Turkey, domestic violence by a man against his spouse or daughters is sometimes considered as a "right" when not even a "duty". This was confirmed by historical sayings, media, books, and laws until recently and talking about it was considered a taboo subject. Research on domestic violence in Turkey has a short and insufficient history and has started only after the last years of 1980 [5]. Theoretically, men, children, or even household helpers can be subject to domestic violence. Yet studies show that mostly women are the victims of spouse abuse. Domestic violence is prevalent in most cultures and occurs across different classes, ethnicities, and socioeconomic levels in both developing and developed countries. Studies conducted worldwide found that domestic violence against women is a matter of fact in 20 to 67 percent of them [6]. For example, additional reports and studies from Thailand, Chile, and Sri Lanka report domestic violence rates against women of 50.0%, 80.0% and 60.0%, respectively. Moreover, available data indicate that violence against women in the family constitutes a serious and costly social problem of global proportions [6, 7].

Violence against women is exposed in forms of physical, sexual and psychological violence in the family, rape in the marriage, damage to genital organs and other traditional interventions, violence without marriage and exploitation related violence, rape and sexual assault. In addition, sexual harassment at work, educational institutes and other places and sexual forcing in the community in types of physical, sexual, and psychological violence and forced prostitution are ways of violence against women in a broad spectrum [8].

In our study, cause of referral to the autopsy center was hanging in 27.5% and substance abuse in 7.5% of the cases. Suicide was considered as the cause of death in nearly all these cases.

In several studies on violence against women, it was stated that violence is repeated and creates a "cycle of violence" [9]. According to the data from the forms, relatives reported that 25.0% of our cases were subject to domestic violence in a repeated manner that was in accordance with reported studies.

Being economically dependent to the spouse is one of the important causes limiting women to response to violence. Economic power enables to gain authority in the family and to put pressure on others. Therefore, owing the resources permits one to control the power [10]. In our study, 87.5% of the cases were housewives affirming economic dependence to the husbands or having no income, which helps to determine their economical status indicating concordance with the results of other studies.

In a previous study, it has been reported that 65% of female victims of violence against

women were unemployed and/or did not have a profession, whereas 18.3% had irregular employment and restricted income [11]. Another study has also pointed out housewives and unemployed women as the groups with the highest frequency of being subjected to violence against women [12]. In one report, physical violence against women and profession of the victim was cross-analyzed and it has been stated that while 38.4% of working women (who had a job) experienced violence against women, this rate was 64.7% for housewives [13]. Our results were correlated with literature. Lack of financial independence of women was suggested as an important risk factor for experience of increased violence against women [14].

The majority of our cases consisted of 19-30 years old women (42.5%) and 31-40 years old women (30.0%). In a study, 39% of victims of family violence were in 20-30 age groups, 62.5% were graduated from elementary school, 64.0% was housewife and 45.3% were married by force of their parents. It was determined that the violence was started in first month of marriage in 47.8% and in 18.7% of cases the violence was threatened the life of the victims [15]. The majority of the victims consisted of 20 to 34 years old women in another study [16]. Haywood et al. [17] stated that young women are more prone to become victims and those 12 to 30 years old women with consequent death of the victim, age distribution of the analysed samples was reported as 20-29 age ranged 22.7%, 30-39 age ranged 25.8% and 40-49 age ranged 12.1% [18].

In the case of violence against women who has not resulted in death, the age distribution of the victims was reported as 33.3% in 15-24 age group, 33.3% in 25-34 age group and 27.5% in 35-44 age group [19]. We determined that young women were more subject to violence with 42.5% in our study.

Previous studies have indicated a correlation between the educational status of women and the type and the extent of violence they were subjected to such that as the educational level of the women increased, violence decreased [20,21]. In addition, some studies have indicated that the high frequency of illiterate women was directly related to the high frequency of violence against women observed in a number of developing countries, as well as certain countries in Africa and Arabia [19, 22, 23]. Our results correlated with previous findings and supported the importance of empowering of women via education.

It was reported that cases subject to violence were living in city centers in high rates (50.0%) from another study. In our study, 18 (45.0%) were born in a village, 15 (37.5%) in a district and seven (17.5%) in a city with the majority (55.0%) living in city and district centers. Several studies report that violence committed against women is related with low socioeconomic status [24-26]. Socioeconomic status is strongly related with employment opportunities for women.

Our findings are in concordance with similar studies. Nevertheless, the relation between violence and economic status is not fully understood. While in some studies higher violence rates among women with low socioeconomic status are reported, no significant difference could be determined in some. Campbell emphasizes that woman subject to violence start to use alcohol or substances with the aim to cope with posttraumatic symptoms [27]. In our study, the cause of death was substance abuse in three (7.5%) cases. In a study conducted by Kyriacou [28] about 256 female victims of violence, 63.7% were abusing alcohol and 36.7% of the assailants were addictive to substances. Although some report that violence, alcohol, and substance abuse are connected, this issue remains unresolved. In a study, found that 84 out of 405 women (20.7%) were subject to violence. The persecutor was male in (83.3%) and was the victim's husband (77.4%). The median age was 40.0 years. Seventy-three (86.9%) subjects had an occupation (27.4%) were ignorant (14.3%) had alcohol abuse and (52.4%) were smokers [29]. Only 2.5% of the cases were determined to have used alcohol in this study. A conclusion should be made with precaution due to the insufficient number of cases.

Physical or sexual violence occurs mainly within the family and home as it is the case in our study [30]. In another study about women and violence, it is stated that 25.0% of women admitted to an emergency room had a history of domestic violence by their spouses and that 64.0% of women hospitalized in the psychiatry services reported to be subject to violence in adult life [31]. Depression and posttraumatic stress disorder are the most prominent sequels of spouse violence. Studies conducted in the USA, Scandinavia and Papua New Guinea verified that suicidal affinity is related with spouse violence [4, 32]. In our study, it was concluded that a history of psychiatric disease in 15.0% of our cases was due to missing medical health records of the cases. In a study conducted in the USA on 38648 deaths in persons aged 15 and above between 1976 and 1987, it was notified that 61.0% of deaths were in women and 39.0% in men and that spouses had killed the persons which they were living with or that divorced partners had killed their ex-partners [33]. In deaths associated with suicide, it was reported that there were no previous admissions to the officials. The majority of the women conceal the violence that there were subject to and abstain to acknowledge medical or judicial services [10, 33].

In another study on murdered women, shotgun related injuries were found as high as 64.0% and stab wounds in 19.0% of the cases [34]. In a study from the USA, the rate of shotgun related injuries were found as high as 60.0% in suicides [35]. In a study from South Africa, stab wounds were detected in a higher rate followed by blunt trauma and shotgun injuries [36]. Our results are in consistence with the literature but accessibility to firearms in the USA is easier and this seems to increase shotgun related injuries. In a review of 300 attempted strangulation cases, it was determined that asphyxia can occur without any external sign of strangulation although blunt trauma to the neck was present [37].

Although our results are in consistence with the literature, we believe that deficiencies during admissions of these cases in addition to missing data are influencing the results.

Assessment of cause of death and origin together revealed that mechanical asphyxia due to hanging was frequent among the suicide cases and internal bleeding due to injury to the internal organs and great vessels were the main causes of death in shotgun and stab wound associated murder cases. Whereas a significant higher portion of the murder cases had children, a significant higher rate of not having children was observed among the suicide cases.

Violence against women requires a teamwork including not only forensic medicine specialists but also other medical specializations, lawyers, security forces and democratic mass organizations to be recognized. Timely diagnosis and preventive measures can prevent unwanted deaths related to violence and help to provide a healthy community. Therefore, we believe that a comprehensive approach including the prevention of violence-associated deaths in women and rehabilitation processes is necessary in our country.

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