Available online at www.medicinescience.org

ORIGINAL ARTICLE

Medicine Science International Medical Journal

Medicine Science 2018;7(2):283-9

The evaluation of the forensic reports referred to the council of forensic medicine, Yalova region, Turkey, 2014-2016

Zeynep Yener

Forensic Medicine Institution Yalova Forensic Medicine Branch Directorate, Yalova, Turkey

Received 10 November 2017; Accepted 11 December 2017
Available online 08.02.2018 with doi: 10.5455/medscience.2017.06.8742

Abstract

The aim of this study was to determine the demographic and referral-related characteristics and the conclusions of the legal reports which were referred to the Council of Forensic Medicine, Yalova. Legal reports of cases who were referred to the Council of Forensic Medicine in Yalova from 01.01.2014 to 31.12.2016 were reviewed. A retrospective evaluation regarding the application year, age and gender of the applicant, the referring department, the inquiry in terms with the Turkish Penal Code, whether the case was examined in person and the conclusion of the report, was performed. 398 cases (39.9%) in 2014, 454 cases (40.9%) in 2015 and 257 cases (23.2%) in 2016 were referred to the Council of Forensic Medicine in Yalova. These cases included 889 (80.2%) men and 220 (19.8%) women. For most of the cases (34%), the age range was 11-20 years. The most common referral reasons were injuries due to battery (31%) and evaluation of cases with regards to the criminal liability and the juridical capacity. Most of the reports were requested by the Office of Public Prosecutions. Physical examination was performed in 726 cases (65.5%) while 383 (34.5%) reports were written solely depending on the evaluation of documents. Male gender, young age, legal report requests for malicious wounding and needlestick and sharp object injuries were the most common characteristics of the legal reports conducted in our district in the 3 year period. Regional profile and database administration could be useful in decreasing or preventing the legal incidents as well as the better planning and performance of the Forensic Medicine Services.

Keywords: Forensic Medicine, legal reports, legal cases

Introduction

Corporeal integrity is secured by the legal order which includes the national laws and the Turkish Constitution. The 17th article of the Turkish Constitution interprets as: “Everyone has the right to life and the right to protect and improve his/her corporeal and spiritural existence. The corporeal integrity of the individual shall not be violated except under medical necessity and in cases prescribed by the law, no one shall be subjected to torture and mal-treatment”. Violation of the corporeal integrity may result from malicious or negligent acts. In violation of corporeal integrity cases such as injuries, a legal report must be written, and legal notification should be made.

A legal report should be recorded for the following; obtuse traumatic injuries, traffic accident-related injuries, occupational accident-related injuries, firearm and blast injuries, needlestick and sharp object injuries, injuries caused by cutting, penetrating, cutting-crushing [1-3]. Physicians have legal duties as well as treatment and prevention related healthcare duties [4]. Judgement of the violation of corporeal integrity could only be possible with the detection and recording of legal cases [2,4,5].

***Coresponding Author:** Zeynep Yener, Forensic Medicine Institution Yalova Forensic Medicine Branch Directorate, Yalova, Turkey
E-mail: drguernika@hotmail.com

Forensic medicine doctors, family physicians, community health center doctors and other physicians who work for private and public hospitals are all responsible to take part in the forensic medicine services which are carried out by the Turkish Council of Forensic Medicine, Forensic Medicine Chairmanships, State Hospitals of the Turkish Ministry of Health, Forensic Medicine Departments of Universities [2,6,7].

Forensic Medicine Services are carried out in a similar fashion in Yalova. Legal reports are usually written either by general practitioners and specialists of the Yalova State Hospital or by the forensic medicine doctor of the Yalova Council of Forensic Medicine. In general practice, legal reports written in State Hospitals are conducted as “temporary reports” and “definite reports” which are presented to either prosecuter’s offices or to judiciaries, are written by forensic medicine doctors who work in forensic medicine departments of universities, research hospitals or Council of Forensic Medicine Branches [2,3,7].

Main inquiries of referrals are whether the injury is life-treatening, whether the injury can be healed with basic medical interventions, whether the injury include any fractures and if present the severity of the fracture according to the Turkish Penal Code [8].

The aim of this study was to evaluate the legal reports which

were conducted by the Yalova Council of Forensic Medicine in the last three years retrospectively and determine the range of legal incidents and the conclusion of legal reports and discuss this issues in accordance with the medical literature. Our study is the first one to evaluate the legal reports in Yalova district and aims to contribute to the medical literature.

Material and Method

With the approval of Turkish Council of Forensic Medicine, 1196 legal reports which were referred to the Yalova Council of Forensic Medicine from 01.01.2014 to 31.12.2016, were reviewed. A retrospective evaluation regarding the application year, age of the applicant, the referring department, the inquiry in terms with the Turkish Penal Code, incident type, whether the case was examined in person and the conclusion of the report, was performed.

Reports which were not physically present or could be accessed via the National Judiciary Informatics System, (87 in total) were excluded from the study. Study findings were compared with similar studies from the literature. Study data were analysed using SPSS Software for Windows, version 18. Definitive statistics, mean and standart deviation for variables were calculated. Qi-square test was used to compare groups. $p<0.05$ was accepted as statistically significant.

Results

Thousand one hundred nine of 1196 legal reports which were written in the Yalova Council of Forensic Medicine from 2014 to 2016, were included in our study. Three hundred ninety-eight reports in 2014 (35.9%), 454 reports in 2015 (40.9%), 257 reports in 2016 (23.2%) were conducted and evaluated in our study. These 1109 cases consisted of 889 (80.2%) men and 220 (19.8%) women. Age range was 11-20 years in 377 (34%) cases, 21-30 years in 230 (20.7%) cases, 61 years and older in 58 (5.2%) cases. No age information was available in 4 (0.4%) cases. Mean age was 30.6±16 years, with a range of 8 months-90 years. Application year and age groups are shown in Table 1.

Most of the cases were referred by the office of public prosecutions. Out of 371 cases who were referred by the judiciary, most of them (86.8%) were referred by the penal court of first instance (Table 2).

Table 1. Distribution of application years and age groups

Application Year	Women		Men		Total	
	n	%	n	%	n	%
2014	78	7	320	28.9	398	35.9
2015	102	9.2	352	31.7	454	40.9
2016	40	3.6	217	19.6	257	23.2
Total	220	19.8	889	80.2	1109	100
Age Range						
1-10	4	0.4	6	0.5	10	0.9
11-20	53	4.8	324	29.2	377	34
21-30	54	4.8	176	15.9	230	20.7
31-40	39	3.5	169	15.3	208	18.8
41-50	31	2.8	111	10	142	12.8
51-60	22	2	58	5.2	80	7.2
61 and older	16	1.4	42	3.8	58	5.2
Unindicated	1	0.1	3	0.3	4	0.4
Total	**220**	**19.8**	**889**	**80.2**	**1109**	**100**

Table 2. Distribution of the departments requesting the referral.

Department Requesting The Referral	n	%
Office of Public Prosecutions	737	66.5
Court of First Instance	322	29
The Civil Court of First Instance	20	1.8
Heavy Penal Court	16	1.4
Penal Court of Peace	13	1.2
Judiciary of Execution	1	0.1
Total	**1109**	**100**

Most of the referral requests of the 1109 cases, were the evaluation of injury due to battery (344; 31%) and the psychiatric evaluation regarding allegation (298; 26.9%). In 185 (16.7%) cases incident type was not indicated (Table 3).

When the applications of the forensic cases were evaluated according to month, it was seen that the most cases were in the month of April (11.4%) (Figure 1).

Table 3. Distribution of incident types

INCIDENT TYPE	Women		Men		Total	
	n	%	n	%	n	%
Battery (blunt trauma)	93	8.4	251	22.6	344	31
Allegation	26	2.3	264	23.8	290	26.1
Needlestick sharp object injury	2	0.2	90	8.1	92	8.3
Traffic Accidents	27	2.4	48	4.3	75	6.7
Firearm Injuries	4	0.3	51	4.6	55	4.9
Genital examination regarding sexual assault, psychiatric examination, self-defense inquiry, etc.	20	1.8	2	0.2	22	2
Occupational Accidents	0	0	7	0.6	7	0.6
Intoxication/Chemical Substance Exposure	0	0	6	0.5	6	0.5
Substance being within the scope of the 18th article of the Turkish Penal Code, or not	1	0.1	6	0.5	7	0.4
Malpractice allegation	1	0.1	3	0.3	4	0.5
Others (self-defense, moral awareness)	3	0.3	2	0.2	5	0.4
Legal and juridicial capacity	0	0	4	0.4	4	0.3
Fall from height	2	0.2	1	0.1	3	0.2
Electrical exposure injuries	1	0.1	1	0.1	2	0.2
Animal/Human Bites	1	0.1	1	0.1	2	0.1
Burnt	0	0	1	0.1	1	0.1
Exposure to pepper gas	0	0	1	0.1	1	0.1
Endangering traffic safety	0	0	1	0.1	1	0.1
Image Analysis	0	0	1	0.1	1	0.1
Occupational Diseases	0	0	1	0.1	1	0.1
Medical custody (in accordance with the 74th article of the TCK)	0	0	1	0.1	1	0.1
Suspended sentence	0	0	1	0.1	1	0.1
Unspesified	39	3.5	1	13.1	184	16.6
Total	**220**	**19.8**	**145**	**80.2**	**1109**	**100**

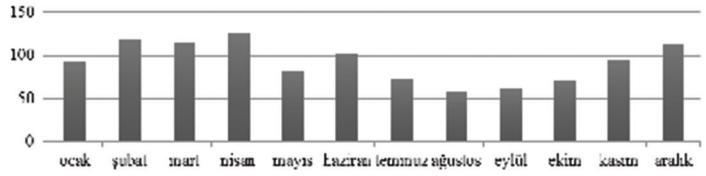

Figure 1. Monthly distribution of the applications

Seven hundred six (63.6%) of 1109 cases were referred by the judiciary for the evaluation of injuries in accordance with the 86-87-88-89th articles of the Turkish Penal Code. Three hundred twenty-eight (29.6%) cases were referred for the evaluation of legal psychiatric examination for determining various issues including juridical capacity in children (Turkish Penal Code, article 31/2), criminal liability in adults (Turkish Penal Code, article 32/1-2) and moral awareness. Fourty (3.6%) cases were referred without a detailed written inquiry. Thirty-five (3.2%) cases were referred for determination of disability, out of functionality period, genital examination, suspended sentence, image analysis (Table 4).

Table 4. Distribution of the referral reasons

	Women		Men		Total	
Referral Reasons	**n**	**%**	**n**	**%**	**n**	**%**
About the 86, 87, 88,89th articles of the Turkish Penal Code	151	13.6	555	50	706	63.6
Legal Psychiatric Examination	51	4.6	277	25	328	29.6
Unspesified	9	0.8	31	2.8	40	3.6
Other	9	0.8	26	2.4	35	3.2
Total	**220**	**19.8**	**889**	**80.2**	**1109**	**100**

Three hundred eighty three (34.5%) reports were conducted by evaluating documents, 726 (65.5%) reports were conducted via examination. 48 of 1109 reports were additional. Evaluation of the conclusions revealed that in 117 (10.6%) cases temporary reports requesting the completion of missing information were conducted, in 666 (60.1%) cases definite legal reports for various issues were conducted. Although no exterior traumatic lesion was described in their medical documents, in 17 cases definite reports were conducted in accordance with the 86, 87, 88,89th articles of the the Turkish Penal Code. In 244 (22%) cases medical assessments about the 31/2nd article of the the Turkish Penal Code were reported. 12 (1.1%) cases were evaluated in accordance with the 32/1-2nd articles of the the Turkish Penal Code. 10 (1.4%) cases were evaluated regarding the moral awareness. 9 (0.8%) cases were evaluated for being capable of self defense, 7 (0.6%) cases were evaluated for determining their disability rates and in 4 (0.4%) cases genital examination was perfomed. In 4 (0.4%) cases inquiry was about whether the determined substances were within the contents mentioned in the 188th article of the Turkish Penal Code. In 3 (0.3%) cases the effects of the incident on psychiatric health were evaluated. In 3 (0.3%) cases the conclusion was not clear, and no medical comments were available. For each of the following 1 (0.7%) case was evaluated: occupational disease, tanner staging via image analysis, life threatening affects of the active substance of the mentioned drug, juridical capacity, endangering the traffic safety due to drunk driving, the necessity of medical custody in accordance with the 74th article of the Turkish Penal Code, the presence of mental illness or mental retardation. Detailed distribution of the conclusions of the legal reports are shown in Table 5.

Table 5. Distribution of the conclusions of the legal reports.

Conclusions of the legal reports	**n**	**%**
Definite report regarding the 86, 87, 88,89th articles of the Turkish Penal Code	666	60
Juridical capacity in accordance with the 31/2nd article of the Turkish Penal Code	244	22
Temporary Report	117	10.5
Referred to the Turkish Council of Forensic Medicine	23	2.1
Other	23	2.1
Moral awareness and/or genital examination	14	1.3
Criminal Liability in accordance with the 32/1-2nd article of the Turkish Penal Code	12	1.1
Disability Rate	7	0.6
No conclusion was available	3	0.3
Total	**1109**	**100**

Three hundred twenty-seven cases were aged below 18 years 51 (15.6%) of whom were female and 276 (84.4%) were male. The referral reasons of these 327 cases were as the following: 249 (76.2%) cases who had claim of crime were referred for legal psychiatric evaluation, 29 (8.9%) were referred for injuries to due battery, 10 (3.1%) cases with sexual assault claim were referred for genital examination and/or evaluation of their physical/psychiatric health and self-defense ability. 8 (2.4%) cases were referred for injuries due to traffic accidents, 7 (2.1%) cases were referred for injuries with needlestick and sharp objects, 3 (0.9%) cases were referred for the evaluation of the substance detected in their blood samples and whether the substance was within the contents mentioned in the 188th article of the Turkish Penal Code. In 30 female cases (17.7%) incident type was not specified. Incidents regarding 122 (55.5%) female cases were considered as violance against women (battery, firearm/needlestick and sharp object injury, plundering, sexual assault) and 91 definite reports in accordance the 86, 87, 88, 89th articles of the Turkish Penal Code were conducted. In 1 of 91 cases (1.1%) a life-threatening injury was detected while in 13 (14.3) cases injuries were found to be not treatable with basic medical interventions and in 7 (7.7%) cases single/multiple fracture(s) were detected Table 6.

Table 6. Distribution of incident types/referral reasons in women

	n	**%**
Injuries caused by battery or assault	122	55.4
Incident type was not specified	39	17.7
Accidental Injuries	31	14.1
32/1-2nd articles of the Turkish Penal Code	26	11.8
Malpractice claim	1	0.5
188th article of the Turkish Penal Code	1	0.5
Total	**220**	**100**

Five hundred thirty nine cases were evaluated regarding whether their incident was life-threatening, 90.2% (n=486) were found to be life threatening while 9.8% (n=53) were not. The most common life-threatening incidents were electrical exposure injuries, needlestick and sharp object injuries and traffic accidents, respectively. Incidents which were less likely to cause life-threatening situations were injuries due to battery and firearms (119 of 539 cases were women and 5 of them had life threatening injuries).

Two hundred ninety one of 539 injuries (54%) were treatable with basic medical interventions whereas 247 of 539 injuries (45.8%) were not and 1 one injury was consulted to the orthopedy department. Injuries which were not treatable with basic medical interventions most frequently resulted from occupational accidents, firearms and fall from heights, respectively (119 of 539 cases were female and in 27 the injury was not treatable with basic medical interventions).

Four hundred twelve of 540 (76.3%) cases did not have any bone fractures while 128 (23.7%) had bone fractures which presented as a single fracture in 103 (19.1%) cases and multiple fractures in 25 (4.6%) cases. Effects of these fractures on vital functions are shown in Table 7. Fractures were most frequently resulted from batteries and traffic accidents, respectively (120 of 540 were women, 13 had single fractures, 6 had multiple fractures, 11 mild severity fracture, 1 medium severity and 1 severe fracture).

Table 7. Distribution of fractures according to their impact on vital functions

Impact of the fracture on vital functions	n	%
Mild	28	21.9
Medium	62	48.4
Severe	27	21.1
Fracture present but document requested for missing infor-mation, thus severity undetermined	11	8.6
Total	**128**	**100**

Regarding the inquiry whether the injury caused loss or weakening of function in any sense or organs, re-examination 18 months after the incident was required in 17 (15.7%) cases, recent examination findings and medical records were requested from the related department of the hospital in 17 (15.7%) cases, temporary reports requesting the evaluation of the Turkish Council of Forensic Medicine were conducted in 2 (1.86%) cases. 72 (66.7%) reports had definite conclusions. In 65 of 72 (90.3%) cases injuries were concluded not to cause any loss or weakening of function in any sense or organs, in 3 (4.2%) cases injuries resulted in weakening of function in a sense or organ, in 4 (5.5%) cases injuries resulted in loss of function in a sense or organ.

Regarding whether the injury caused a permanent change or facial mark, temporary reports requesting re-examination 6 months after the incident were conducted in 43 of 218 (19.7%) cases. In 175 (80.3%) cases definite reports regarding facial mark and permanent change were conducted. In 128 of 175 (73.1%) cases no permanent change or facial mark was detected, in 20 (11.4%) cases no facial mark due to injury was detected, either because no facial lesion was documented at the time of the injury or because the lesion had healed without leaving any permanent marks.

Regarding the legal psychiatric evaluation, in 282 of 328 (86%) cases conclusions were made about the referred inquiries. These inquiries included the following: 256 (90.8%) cases were evaluated regarding the 32/1-2nd articles and the 31/2nd article of the Turkish Penal Code, 10 (3.5%) cases were evaluated regarding moral awareness, 9 (3.2%) cases were evaluated regarding the capability of both physical and psychiatric self-defense in accordance with the 86/3-b article of the Turkish Penal Code, 3 cases were evaluated for the possible physical and psychiatric effects of the sexual assault (in accordance with the 102/5th and 103/6th articles of the Turkish Penal Code), 1 case (1.1%) was evaluated for mental disease, 1 case (1.1%) was evaluated for juridical capacity and 1 case (1.1%) was evaluated for the need of medical custody (in accordance with the 74th article of the Turkish Penal Code). In a case (0.3%) referral was about substances regarding the 31/2nd article of Turkish Penal Code and a report remarking the impossibility of such an examination restrospectively was conducted in reply.

Regarding the referrals about the 31/2nd articles of the Turkish Penal Code (whether those who have not reached the age of 15 years but are older than 12 years at the time of offense, were capable of perceiving the legal significance and consequences of their acts or whether their faculities of autonomous actions were sufficiently developed) and 32/1-2nd article of the Turkish Penal Code (whether due to mental disorder cannot comprehend the legal meaning and consequences of the act he/she committed or whether his/her ability to control his/her own behaviour was significantly diminished), 110 of 262 cases (42%) were capable of perceiving the legal significance and consequences of their acts and their ability to control their own behaviour was not diminished. 145 cases (55.3%) were either not capable of perceiving the legal significance and consequences of their acts or had lost their ability to control their own behaviour due to immaturity or mental disease. In 1 case the loss of ability to control one's own behaviour was affected but not as severe as it is mentioned in the 31/2nd article of the Turkish Penal Code. 5 cases (1.9%) were referred to the General Assembly of Counsil of Forensic Medicine, the 4th Board. In 1 case retrospective evaluation was not possible.

In 3 of 9 (33.3%) cases with sexual assault incidents, physical and psychiatric health were not affected. In 1 case (11.1%) a temporary report requesting the missing information was conducted. In 5 cases (55.6%) it was remarked that consulting the General Assembly of Counsil of Forensic Medicine, the 6th Board would be more appropriate.

Discussion

Our study population consisted of 80.2% men and 19.8% women. In various studies male gender range were reported as 68.2-84.7% [9-16]. Our study population is similar to the previous studies [17-20]. We suppose that this results from men being more frequently involved in occupational and social environment which reslt in more exposure to trauma.

Most frequent referral reasons were: battery (31%), legal psychiatric evaluation requests (26.1%), presence of substances mentioned in the 31-32nd articles of the Turkish Penal Code, respectively. Most frequent causes of injuries were: battery (31%), needlestick and sharp objects (8.3%) and traffic accidents (6.8%). These findings of our study are in accordance with the previous studies [9,10,13,14,20,21). Therefore, in many previous studies traffic accidents were found to be the most common cause of the injuries (9-12,15,16,18,20-24) while in our study traffic accidents were the third most common cause. In 16.7% of our cases incident type was not indicated and we suppose that this might explain the difference with the previous studies. Our study and previous studies suggest that amongst intentional injuries battery is the most common cause while traffic accidents are the most common cause of involuntary injuries.

In our study most of the cases were referred in april (11.4%). There are similar studies indicating that legal applications are more common in spring especially in may and june (11,13,25). Our study differs from the previous studies which indicate that legal referrals are most frequent in summer (9,10,15). We suggest that this difference may be resulting from the lack of a forensic medicine specialist in our department from August to December, in 2016.

For most of the cases (34%) age range was 11-20 years, followed by the age range 21-30 years (20.7%). Similarly, Karanfil et al. reported that most cases were 11-20 years old followed by the 21-30 years old group (14). Tıraşçı et al. reported that most most cases were 11-20 years old (42.9%) followed by the 21-30 years old group (22.6%) [16]. It's remarkable that most of the cases in the current literature are 21-30 years old [9,11-13,19]. Our findings are not compatible with the previous literature. We suggest that this difference is the result of the cases who were referred for the evaluation in accordance with the 31/2 and 32/1-2nd articles of the Turkish Penal Code being the second most frequent (290; 26.1%).

We detected that examination was performed in 65.5% of the cases. Ketenci et al. reported that examination rate was 31.2% in their study [13]. We suppose that this difference results from the need for examination in cases who are referred for the evaluation in accordance with the issues regarding the 31/2 and 32/1-2nd articles of the Turkish Penal Code.

Most of the cases (66.5%) were referred by the Office of Public Prosecutions. This finding is similar to the 62.1% rate reported by Demirer et. al [11]. Referrals by the Office of Public Prosecutions were reported to be 94.4% and 91.6% of the whole referrals by Güven et al. and Ketenci et al., respectively [9,13]. The low rate of referrals by the Office of Public Prosecutions in our study, this difference could be due to the fact that definite legal reports are a compulsory issue of the investigation in our district and many healthcare providers conduct definite reports and submit them to the Office of Public Prosecutions. Regarding the 371 (33.5%) referrals by the judiciary, most of them (86.8%) were referred by the Court of First Instance and 3.5% were referred by the Penal Court of Peace [13]. Since most of the cases were injuries due to battery crimes, it is expectable that most referrals were made by by the Court of First Instance.

Evaluation regarding the life-threatening effect, 9.8% cases had a life-threatening injury. Boz et al., Güven FMK et al., Tıraş et al., and Uluçay et al. reported this rate as 13.0%, 17.4%, 29.9%, 30.0%, respectively. These differences regarding the rates could be resulting from the different regional distribution of crimes and electrical injuries (0.2%) being the less and injuries of battery (31%) being the most frequent in our study. The most common causes of life-threatening injuries were electrical exposure, needlestick and sharp objects, respectively. Tıraşçı et al. reported that the most common causes of life-threatening injuries were: electrical exposure, fall from height and needlestick and sharp objects, respectively. Karasu et al. reported that the most common causes of life-threatening injuries were: electrical exposure, needlestick and sharp objects and drug intoxications, respectively [12,16]. Our study findings are in accordance with the previous studies. Tuğcu et al. reported that the most common causes of life-threatening injuries were: firearms, needlestick and sharp objects and explosions, respectively [22]. Difference in our study regarding these findings could be resulting from the difference in the distribution of injuries in the previous studies.

45.8% (n=247) cases had a kind of injury that was not treatable with basic medical interventions. Similarly, Karasu et al. and Güven et al. reported this rate as 54.1% and 47.7%, respectively [9,12]. Uluçay et al. and Tıraşçı et al. reported this rate as 30.4% and 28.6%, respectively [10,16]. Regarding this rate, half of the cases in our study could be considered as lawsuits for civil rights violations and discriminations.

Evaluating the effects of fractures on life functions, we found that the medium effect was the most common. Güven et al. reported 49% severe and 38.9% medium effects [9]. In our studies most were fractures were the results of battery which is reported to cause mild-medium severity fractures most frequently.

Regarding the evaluation whether the injury caused any loss or weakening of any sense or organs, 11% (n=8) cases had loss or weakening of a sense or organ, in our study. Similarly, Tuğcu et al. reported this rate as 12.6%. Uluçay et al., Tıraşçı et al., and Güven et al. reported this rate as 30.1%, 7.4%, 6.1% respectively. We found that the most common cause of loss or weakening in a sense or organ was firearm injuries.

Regarding whether the injury caused a permanent change or facial mark in our study, in 128 cases (73.1%) no permanent change or facial mark was detected. In 27 (15.4%) cases, the injury had caused a facial mark. Similarly, Uluçay et al. reported that in 22.1% of the cases, the injury had resulted in a permanent change or facial mark [10]. Karasu et al. reported the facial mark rate as 33.4% [12]. Tıraşçı et al. and Güven et al. reported facial mark rate as 3.37% and 2.6%, respectively. Our study findings regarding the facial mark differs from the previous studies. In previous studies legal cases referred to the Forensic Medicine departments of universities were evaluated while in our study referrals to the Council of Forensic Medicine were evaluated. Regarding the high rates in our study, it must be noted that the Council of Forensic Medicine not only conducts legal reports but aldo evaluates the reliability of the reports which are conducted by the universities.

Regarding the evaluation of issues in the 31/2 and 32/1-2nd articles of the Turkish Penal Code, 143 of 256 (55.9%) cases had criminal liability and juridical capacity. Similarly, Karasu et al. reported the presence of criminal liability and juridical capacity as 53% in their study [12]. Tıraşçı et al., Kurtuluş et al., Gündoğmuş et al. reported the presence of criminal liability and juridical capacity as 81.7%, 93.2% and 96.7%, respectively[16,26,27]. This rate was found to be different in some studies.

Incident types were reported as battery, firearm, needlestick and sharp object injuries and sexual assault in 2/3 of the female cases. The evaluation of 91 cases in accordance with the issues in the 86-87-88-89th articles of the Turkish Penal Code, it was revealed that 1 women had life-threatening injury due to battery and 13 women with an exposure to violence had injuries that were untreatable with basic medical interventions. Althrough, the physical and sexual violence against women were evaluated in our study, no data about the performer of the violance was available.

In our study the incident types in female cases were sexual assault in 9.1% and injuries resulting from battery in 43.2% of the cases. In their study which evaluated 2245 legal reports about women from 1996 to 2000, Celbiş et al. reported the incident types as blunt trauma in 31.3% cases and sexual assault in 7.2% cases [28]. We suppose that the high rates in our study results from women being more social and capable in our district in comprasion to the women who live in eastern and south-eastern districts of our country and thus applying legal authorities more openly about such crimes. Similar to our study, Günay et al. reported that injuries in female cases most frequently resulted from blunt traumas [29].

1/3 of our cases (29.5%) were below the age of 18 years. 14.4% of these cases were referred as physical/sexual assault victims, 76.2% were referred for the legal psychiatric evaluation regarding the crimes they were claimed to have committed. 0.9% of the children were referred for the evaluation of the illegal drugs which were detected in their blood samples and substances mentioned in the 188th article of the Turkish Penal Code were found to be present. Korkmaz et al. evaluated the pediatric legal applications to the ER and classified the incidents as 5% battery, 10.9% needlestick and sharp object injuries and 1% physical assault [30].

Conclusion

Our study which aimed to reveal the legal incident and injury types of our region had similar findings with the previous studies. Our study differs from the previous studies as the age range being 11-20 years in most of our cases which might be an indicator of violence becoming more common in younger ages. The high number of referrals about the issues in the 31/2 and 32/1-2nd articles of the Turkish Penal Code, is due solicitation being quite common in our district. We suggest that education providers and parents should be more alert about solicitation. In order to prevent solicitation, children, parents, teachers, psychologists, pedagogs and legal authorities should attend educational and preventive seminars more frequently. We also suggest that the number and the functionality of Constitutions providing aversion therapies must be enhanced.

Regular and thorough recording of legal cases is important for promoting the advance of legal procedure, prevention of victimization and providing statistically reliable data. Thus, our study findings and data could be helpful for improving the quality of the planning and the execution of the forensic medicine services. Determining the most frequent incident types could also be helpful for better planning of the forensic medicine lectures in the universites. We believe that regular educational seminars about legal report writing are important for the correction of mistakes in medical reports and fulfilling the needs of forensic medicine services. Our study findings which reveal the regional profile would be helpful for the preparation of such educational seminars.

Injuries resulting from violence are common in our country as well as the rest of the world. More public reconcilliation and tolerance are needed to lessen these rates. Violence, especially the violence against women should be considered as a public problem and resolutive sanctions should be made. We suppose that in any society with weak resolutive sanctions, women and children would continue to be the victims of violence. Coordination of government services is important for the prevention and avertion of the violence acts. Further studies promoting the coordination of these services and regulating the sanctions are needed.

Competing interests
The authors declare that they have no competing interest.

Financial Disclosure
The financial support for this study was provided by the investigators themselves.

References

1. The constitution of the republic of Turkey. https://www.tbmm.gov.tr/anayasa/anayasa82.htm date accessed:08/10/2017
2. Polat O. Adli Tıp Prosedürü, Klinik Adli Tıp. 2. Edition, Seckin Publishing, Ankara 2006.
3. Celbis O, İscan MY. Adli Bilimler Kimlik, Yeniden yapılandırma ve ölüm, 1. Edition, Ankara, Özyurt Printing, 2016.
4. Koc S. Adli Tıpta Rapor Hazırlama Tekniği ve Rapor Örnekleri. Ed: Soysal Z, Cakalir C. Forensic Medicine, Volume III. 1. Edition. İstanbul; İstanbul University Press and Film Center, 1999:1573-633.
5. Fatih YM, Sunay YM. Adli rapor standardizasyonu ve adli raporlarda Görülen eksiklikler. Turkish J Surg Med Sci. 2006;2(50):28-33.
6. Sunay YM, Serpil A. birinci basamakta adli olgu ve adli rapor düzenleme. Turkish J Family Practice. 2004;8(1):30-33.
7. Güler C, Cobanoğlu C. Sağlık Mevzuatı. Güneş Bookstore, Ankara 1997:93-101.
8. Turkish Penalty Law. Law Number: 5237, Acceptance Date: 26/9/2004, Published at Official Gazette in: 12/10/2004, The Number of Official Gazette Which Published At: 25611.
9. Güven FMK, Bütün C, Beyaztas FY, ark. Cumhuriyet Üniversitesi Tıp Fakültesi Hastanesine başvuran adli olguların değerlendirilmesi. Official J Adnan Menderes Univer Fac Med. 2009;10(3):23-8.
10. Ulucay T, Ziver A, Zeyfeoglu Y, ark. Celal Bayar Üniversitesi Tıp Fakültesi adli tıp polikliniğine başvuran olguların değerlendirilmesi. J Forensic Med. 2006;20(2):22-9.
11. Demirer M, Yavuz MS, Baydar ÇL, ark. Süleyman Demirel Üniversitesi Tıp Fakültesi Adli Tıp Anabilim Dalı'na müracaat eden adli olgular. 12. National Forensic Medicine Days, Forensic Medicine Institute, Antalya, Congress Book, 2005;231-4.
12. Karasu M, Isır AB, Aydın N, ark. Gaziantep Üniversitesi Tıp Fakültesi Adli Tıp Anabilim Dalınca 1998-2005 yılları arasında düzenlenen adli raporların değerlendirilmesi. Gaziantep Medical Journal. 2009;15(1):10-5.
13. Ketenci HC, Kır MZ, Basbulut AZ, ark. Erzurum Adli Tıp Şube Müdürlüğü'ne müracaat eden olguların değerlendirilmesi. J Forensic Med. 2013;27(2):87-93.
14. Karanfil R, Zeren C. Kahramanmaraş Sütçü İmam Üniversitesi Tıp Fakültesi Adli Tıp Anabilim Dalına 2009-2010 yıllarında başvuran olguların retrospektif olarak değerlendirilmesi. J Forensic Med. 2011;25(3):183-90.
15. Yemenici S. Trakya Üniversitesi Sağlık Araştırma ve Uygulama Merkezine başvuran adli nitelikli olguların ve düzenlenen adli raporların değerlendirilmesi. Edirne, Dissertation, 2014.
16. Tıraşçı Y, Durmaz U, Altınal A, ark. Dicle Üniversitesi Adli Tıp Anabilim Dalınca 2012-2015 yılları arasında düzenlenen adli raporların retrospektif olarak değerlendirilmesi. Dicle Med J. 2016;43(3):424-30.
17. Yeşil O, Öztürk TC, Çevik ŞE, ark. İdari amaçlı muayeneler: acil olmayan aciller. Sakarya Med J. 2011(4):130-4.
18. Yavuz MF, Baştürk P, Yavuz MS, ark. Cerrahpaşa Tıp Fakültesi acil servisine başvuran adli olguların değerlendirilmesi. J Forensic Sci. 2002;1(2):21-6.

19. Yavuz MS, Özgüner İF. Süleyman Demirel Üniversitesi Tıp Fakültesi acil servisine müracaat eden adli olguların değerlendirilmesi. J Forensic Med. 2003;17(1):47-53.

20. Küçüker H. Acil servise gelen ölümle sonuçlanmayan travmatik adli olguların ve raporlarının değerlendirilmesi. Turkish J Emergency Med. 2003;3(4):19-23.

21. Kapçı M, Türkdoğan KA, Akpınar O, ark. Acil serviste değerlendirilen adli olguların demografik incelenmesi. J For Med. 2015;29(2):67-74.

22. Tuğcu H, Özdemir Ç, Dalgıç M, ark. GATA Adli Tıp Anabilim Dalında 1995-2002 yılları arasında düzenlenen adli raporların yeni türk ceza kanunu açısından değerlendirilmesi. Gülhane Med J. 2005;47:102-5.

23. Korkmaz T, Kahramansoy N, Erkol Z, ark. Acil servise başvuran adli olguların ve düzenlenen adli raporların değerlendirilmesi. Med Bull Haseki. 2012;50:14-20.

24. Çakır Z, Aslan Ş, Bilir Ö, ark. Acil servise başvuran adli nitelikteki travma vakalarının geriye dönük analizi. J Acad Emerg Med. 2006;4(6):32-37.

25. Boz B, Demirkan O, Beyaztaş FY. Cumhuriyet Üniversitesi Tıp Fakültesi Hastanesi'nde 2000 yılında verilen adli raporların retrospektif olarak incelenmesi. 9. Nation Forensic Med Days, Book of Panels and Posters, Antalya, 2001;18-21.

26. Kurtuluş A, Salman N, Günbet G, ark. Denizli ilinde 12-15 yaş arasındaki suça sürüklenen çocukların sosyodemografik özellikleri. Pamukkale Med J. 2009;2(1):8-14.

27. Gündoğmuş ÜN, Çolak B, Boz H, ark. 1996-2001 yıllarında Kocaeli'nde yapılan Farik-i Mümeyyizlik muayenelerinin değerlendirilmesi. J For Med. 2003;17(2):1-7.

28. Celbiş O, Gökdoğan MR, Kaya M, ark. Review of forensic assessments of female referrals to the branch of legal medicine, Malatya region, Turkey--1996-2000. J Clin Forensic Med. 2006;13(1):21-5.

29. Günay Y, Çınar T, Keskin R, ark. Ölümle sonuçlanmayan etkili eylem olgularının sosyal yönden değerlendirilmesi. Bulletin of Legal Medicine. 1999;4(1):5-11.

30. Korkmaz T, Erkol Z, Kahramansoy N. Acil Servise gelen pediatrik adli olguların değerlendirilmesi: retrospektif bir çalışma. Med Bull Haseki. 2014;271-7.