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Violence against women in Rome: An analysis of cases treated in the gynecology emergency department of the hospital Umberto I between 1999 and 2013

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Parole chiave: Violenza, donne, analisi dei casi

Abstract

Background: *The gynecological emergency department of the Policlinico Umberto I, Rome sees an average of about 30 cases of violence against females each year. It is stressed that these cases are not representative of all cases of violence against women in Rome and they cannot be used to estimate the prevalence or incidence of the phenomenon, but they may provide some insight on the victims and their aggressors, the use of drugs or alcohol, factors which may affect the decision to report the attack to the police and attacks on children.*
Methods: *The case records of all 458 females seen in the emergency department between 1999 and 2013 were retrieved, data were extracted and an Excel worksheet was prepared. Temporal variation in the numbers of cases, the types of aggression, the use of drugs or alcohol, reporting the attack to the police and violence against children were specifically investigated using frequency tabulations and appropriate statistical tests.*
Results: *There has been little change in the number of cases seen during the 15 year period; there is no significant seasonal effect or difference between the days of the week. Just over half of the attacks were reported to the police, but this was less likely among the older victims. About 87% of the cases involved vaginal and/or anal penetration. The use of drugs and/or alcohol was most common, 43%, among unmarried women aged 21-25. There were 32 cases of violence against children aged under 16.*
Conclusions: *There has been little change in the number and characteristics of violent attacks on women seen at this large hospital in Rome over the years 1999-2013.These cases provide little information about the general epidemiology of violence against women, although they do imply that this great social and cultural problem continues unabated in Rome.*

Introduction

The Policlinico Umberto I is one of the largest hospitals in Rome and has a gynecological emergency department dedicated to the treatment of women who have been subjected to violence. Information has been extracted from the clinical records of 458 consecutive cases seen between 1999 and 2013 with the objective of investigating the characteristics of the patients and their aggressors. Particular aspects investigated

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are the types of aggression, the use of drugs or alcohol during the aggression, and factors which may influence the decision to report the aggression to the judicial authorities, and violence against children. It is emphasized that this is an analysis of a case series, and as the characteristics of the catchment area of the hospital are not known precisely, it is not possible to estimate the risks of aggression. Furthermore, the cases which come to the hospital are not representative of all cases that occur, and the characteristics of the cases cannot be generalized to the whole "population" of cases that occur in Rome. Never-the-less it is hoped that the description of these cases may provide some insight into the problem of violence against women in Rome.

Materials and Methods

From the clinical record of each case it possible to extract basic demographic data relating to the victim, data relating to the act of violence and data related to the aggressor. The information relating to the victim includes her nationality, whether she was accompanied to the hospital and by whom, her age, marital status and occupation. Relating to the aggression, the date, the location indoors or outdoors, the mode of aggression such as verbal, physical, threatening, use of weapons and use of drugs or alcohol, and the form of the aggression such as penetration, assault and battery and sexual molestation were available. The information regarding the aggressors

Table 1 - Characteristics of the total sample of 458 patients. The percentages are based on the totals excluding missing values

n. cases per year 1999 – 2013	Missing 0, range 25-37, mean=30.3, sd=3.91
Nationality of victim	Missing 6, Italian 198 (44%), not Italian 254 (56%)
Accompanied to hospital	Missing 4, yes 273 (60%), no 181 (40%)
Accompanied by official (police etc.)	Missing 0, yes 240 (52%), no 218 (48%)
Age of victim (years)	Missing 4, range 2 - 66, mean 28.0, sd 10.2
Marital status	Missing 9, single 310 (69%), ever married 139 (31%)
Occupation	Missing 10, unemployed 293 (65%), employed 155 (35%)
Aggressor known to victim	Missing 34, known 134 (32%), unknown 290 (68%)
Relationship between aggressor and victim	Missing 0, none 402 (88%), present 56 (12%)
Nationality of aggressor	Missing 39, Italian 205 (49%), not Italian 214 (51%)
Single or multiple aggressors	Missing 33, single 317 (75%), multiple 108 (25%)
Place of aggression, indoors/outdoors	Missing 32, outdoors 175 (41%), indoors 251 (59%)
Mode of aggression*	Missing 10, verbal 29 (6%), physical 443 (99%), threat 63 (14%), weapon 27 (6%), drugs/alcohol 100 (22%)
Type of aggression*§	Missing 26, VP 372(86%), OP 55(13%), AP 45(10%), DP 15(3%), AB 87(20%), M 31(7%)
Aggression reported to police	Missing 5, not reported 211 (47%), reported 242(53%)
Age last birthday <16 years	Total 32. Age2-7 ,11 cases; age 8-13 , 8; age 14-15, 13.

* The categories are not mutually exclusive; the percentages sum to more than 100%.
§ VP = vaginal penetration, OP = oral penetration, AP = anal penetration, DP = digital penetration, AB = assault and battery, M = sexual molestation.

contains many missing values, but includes whether or not the aggressor was known to the victim, whether there was a relationship between the aggressor and his victim, the nationality of the aggressor, and the number of aggressors. Also, it is noted whether the aggression was reported to the police or other judicial authority.

Five main areas of analysis have been considered. First, temporal changes in the frequency of cases, by year, by calendar month and by day of the week; second, the factors which may affect the decision to report the aggression to the police; third, factors associated with the type of the aggression; fourth, the use of drugs or alcohol and fifth, the child victims.

Table 1 shows an overview of the dataset available for analysis.

The statistical methods used include frequency tabulations, which have been analyzed using the chi-square test with the continuity correction where appropriate, or Fisher's exact test; odds ratios and logistic regression analysis were used to investigate the association between binary outcome variables and explanatory variables. Linear trends were investigated using linear regression. Analysis of variance and t-tests have been used to compare the means of the quantitative variables such as age.

Results

Temporal changes

The data relate to the 15 consecutive calendar years 1999 to 2013, inclusive. The total number of cases seen was 458 with an average of 30.5 per year and standard deviation 3.94. The range was from 25 cases seen in 2009 to 38 in 2010. This degree of variability is not more, nor less than might be expected to occur by chance, χ^2 =7.13, P = 0.93. There is a slight tendency for the number of cases to increase linearly with year on average 0.42 cases per year, (95% CI -0.04 to 0.89) but this is not statistically significant, P = 0.07. There seems to be no significant relationship between the number of cases and the months of the year. The peak occurs in the October months (mean 47 cases) followed by 46 in December, with minimum values 30 and 31 in January and April respectively. There is no evidence of a seasonal trend. Surprisingly, there is no evidence of variation in the number of cases seen by the day of the week, with the maximum occurring on Monday (16.6%) and the minimum on Tuesdays, 11.8%.

Reporting aggression to the police

In Italy, there are various counter-criminal organizations which we have included under the heading "police". These include the local polizia, the Carabinieri which is a semi military force involved in serious crime, and the Guardia di Finanzia which specializes in financial crime. In the case of aggression, any of these forces might be invoked by the victim.

Overall, 242 out of 453 cases (53.4%) were reported to the police. Between 1999 and 2013 this percentage ranges from a minimum of 34% in 2001 to a maximum of 77% in 2013. However, the annual variation is not statistically significant (χ^2 = 21.7, df 14, P = 0.085) and there is no evidence of a trend between 1999 and 2013. Similarly there is no indication that the day of the week influences the decision to report the aggression; the percentage reporting the aggression is minimum on Sunday (42.6%) and maximum on Tuesday (62.3%) with no obvious trend (χ^2 = 6.03, df 6, P = 0.42).

Single women were more likely to report the aggression, 55% versus 50% but the difference is not statistically significant. Similarly, 55% of the unemployed women compared with 50% of those in employment reported the crime, again without statistical significance. Knowledge of the identity of the aggressor, his nationality, whether there were multiple aggressors and the location

of the assault do not significantly influence the reporting. Italian women are less likely to report the aggression (48.5%) than foreign women (57.2%) but this difference is not statistically significant (χ^2 = 3.41, df 1, P = 0.065) and there are no significant differences between the nationalities of the non-Italian women.

The only factor which has a clear and statistically significant effect on the decision to report the crime is the age of the victim. Aggression against younger women is more likely to be reported than it is if the woman is older; The mean age of women whose aggression is reported is 27.0 years whereas those who do not report are on average aged 29.2 years (P = 0.02). However, comparison of mean ages may hide other effects. Children are considered specifically below, but among girls aged under 15, the percentage of cases that are reported is 71% compared with 53% among women aged 15 or over. Marital status is related to the age of the women, but table 2 shows that the same age effect is seen in both unmarried and ever-married women. Indeed, a logistic regression analysis of reporting on both age and marital status shows that the odds ratio for age is 0.97 per year (P = 0.03) while that for married women, adjusted for age, is 1.18 (P = 0.53) (table 3). From the totals in table 2, the crude odds ratio for reporting the aggression for married women compared to single is (69-139)/(70-171) = 0.80, a value that is low due to the confounding effect of age; married women tend to be older than single women.

Factors associated with the type of the aggression

For 432 of the 458 women (26 missing), the types of aggression are recorded as: penile penetration of the vagina (VP) which was suffered by 372 women (86%); penile penetration of the oral cavity (OP) 55 women (13%); penile penetration of the anus (AP) 45 women (10%); digital penetration (DP) 15 women (3%); assault and battery (AB) 87 women (20%) and molested (M) 31 women (7%). These categories are not mutually exclusive and many of the women suffered multiple types of aggression. Thus of the 432 victims with known type of aggression, 336 (78%) suffered just one type of aggression: 248 (57%) suffered only VP, 17 (4%) only OP, 14 (3%) only AP, one (0.2%) only

Table 2 - Distribution of cases by woman's age and marital status and the reporting of aggression

Age	Single				Ever-married				Total			
	Not rep$^+$	Rep$^+$	Total	%Rep$^+$	Not rep$^+$	Rep$^+$	Total	%Rep$^+$	Not rep$^+$	Rep$^+$	Total	%Rep$^+$
≤ 10	4	10	14	71%	0	0	0	--	4	10	14	71%
11-14	2	5	7	71%	0	0	0	--	2	5	7	71%
15-19	22	34	56	61%	0	0	0	--	22	34	56	61%
20-24	48	58	106	55%	1	5	6	83%	49	63	112	56%
25-29	32	33	65	51%	10	5	15	33%	42	38	80	48%
30-34	18	22	40	55%	9	10	19	53%	27	32	59	54%
35-39	10	7	17	41%	18	24	42	57%	28	31	59	53%
40-44	0	1	1	100%	17	18	35	51%	17	19	36	53%
>44	3	1	4	25%	15	7	22	32%	18	8	26	31%
Total	139	171	310	57%	70	69	139	50%	209	240	449	53%

$^+$ reported to police

Table 3 - Logistic regression analysis of the proportion of aggressions denounced to the police and victim's age and marital status

Response variable "aggression reported to police"						
Ind. variable	b = ln OR	SE(b)	z	P	OR	95% CI
Age (years)	-0.028	0.013	-2.22	0.03	0.97	(0.95 1.00)
Single (reference category)						
ever-married	0.169	0.270	0.63	0.53	1.18	(0.70 2.01)
Intercept	0.864	0.319	2.71			

DP, 54 (12%) only AB and 2 (0.5%) only M. The 432 women suffered a total of 18 different combinations of these six types of aggression. It is difficult and subjective to try to order these combinations according to their seriousness – they are all very serious. However, in order to investigate the association of the explanatory variables with the seriousness of the aggression, we have (arbitrarily) classified the combination (VP and/or AP) as representing the most violent type of aggression. The following analysis is an attempt to evaluate those factors which are associated with this most violent form of aggression among the 432 women whose type of aggression is recorded.

Overall, 376 (87%) of the 432 women suffered (VP and/or AP), that is about six out of every seven patients. Between 1999 and 2013, this percentage varied between 73% in 2006 to 97% in 2001, but these differences are not statistically significant (χ^2 = 12.9, df 14, P = 0.54), and there is no evidence of a secular trend. Similarly, there is no statistically significant difference between the months of the year, (χ^2 = 8.76, df 11, P = 0.64) with the lowest percentage, 79% in November and the highest 97% in September. Furthermore, the percentage does not depend on the day of the week, ranging from 78% on Tuesdays to 95% on Wednesdays (χ^2 = 9.51, df 6, P = 0.15).

(VP and/or AP) is, however, found to be associated with accompaniment or not to the hospital. Among the 372 women who did suffer (VP and/or AP), 58% are accompanied compared with 80% of the 56 women who did not. (χ^2 = 4.50, df 1, P = 0.03). This apparently surprising result may be due to the age of the women; children are less likely to suffer (VP and/or AP) but more likely to be accompanied.

There is no strong evidence to suggest that marital status (χ^2 = 1.20, df 1, P = 0.27) or occupation (χ^2 = 2.07, df 1, P = 0.15) is associated with (VP and/or AP).

(VP and/or AP) is, however, associated with whether the victim knows her aggressor. Among those who knew their aggressors, 81% suffered (VP and/or AP) whereas 90% of those who did not know their aggressor suffered (VP and/or AP). This difference is statistically significant (χ^2 = 6.45, df 1, P =0 .01).

(VP and/or AP) is also associated with the nationality of the aggressor and the number of aggressors. Among women who were victims of attack by non-Italians, 92% suffered (VP and/or AP), whereas 83% of those who were attacked by Italians suffered (VP and/or AP) (χ^2 = 6.55, df 1, P = 0.01). When the number of aggressors was greater than one, 93% of the women suffered (VP and/or AP) compared with 85% when the aggressor acted alone (χ^2=4.46, df 1, P = 0.03).

Among women who did not suffer (VP and/or AP), 71% reported the attack to the police compared with 52% of the women who did experience (VP and/or AP), (χ^2 = 7.72, df 1, P = 0.006). At first sight this may seem surprising, but, as shown below,

Table 4. Use of pregnancy tests and emergency contraception among 371 women who suffered vaginal penetration.

Emergency contraception	Pregnancy test not done	Pregnancy test Negative	Pregnancy test Positive	Total
No	151 (83%)	56 (30%)	3	210 (57%)
Yes	32 (17%)	129 (70%)	0	161 (43%)
Total	183 (100%)	185 (100%)	3	371(100%)

children are less likely to have suffered (VP and/or AP), but their attack is more likely to be reported (see above).

The number and proportion of victims who suffer (VP and/or AP) increases with age from 1 out of 11 (9%) cases at ages <10 years, to 5/7 (71%) at ages 10-14, to 40/52 (77%) at ages 15-19 after which, at ages >19 years, the percentage is fairly constant at 91% (330/362). Although the number of child victims is relatively small (from a statistical point of view), it is clear that very young victims are less likely to have suffered (VP and/or AP).

For the 371 cases who suffered vaginal penetration, table 4 shows the use of pregnancy tests and emergency contraception. Of the 183 who did not have a pregnancy test,151 (83%) did not have emergency contraception, whereas of the 188 women who had a negative pregnancy test, 129 had emergency contraception. There were 3 women with positive pregnancy tests, of whom none had emergency contraception.

Use of drugs and alcohol

Data on the mode of aggression was missing for 10 patients, and among the other 448 patients, there were 100 (22%) for whom the aggression was associated with the use of drugs or alcohol. There were no statistically significant differences among the percentages observed between 1999 and 2013 (χ^2 = 14.43, df 14, P=0.43), between the months of the year (χ^2 = 13.17, df 11, P=0.28), or between the days of the week (χ^2 = 10.19, df 6, P = 0.11).

Table 5 shows that the use of drugs or alcohol strongly depends on the age of the victim. None of the children aged under 16 had been subjected to alcohol or drugs, but 11% of those (all single) aged 16-20 had, and

Table 5. Distribution of the patients according to age group, marital status and the use of drugs or alcohol (D/A). There are 13 missing values

Age (yrs)	Single Women No D/A	Single Women D/A	Single Women Total	Married Women No D/A	Married Women D/A	Married Women Total	All women No D/A	All women D/A	All women
<15	19	0 (0%)	19	0	0	0	19	0 (0%)	19
15-19	49	6 (11%)	55	0	0	0	49	6 (11%)	55
20-24	60	46 (43%)	106	0	0	0	60	46 (43%)	106
25-29	47	17 (27%)	64	3	3 (50%)	6	50	20 (40%)	70
30-34	32	8 (20%)	40	13	2 (13%)	15	45	10 (18%)	55
≥35	17	5 (23%)	22	106	12 (10%)	118	123	17 (12%)	140
Total	224	82 (27%)	306	122	17 (12%)	139	346	99 (22%)	445

the percentage peaked at 43% for women (all single) aged 21 to 25 years ($\chi^2 = 48.2$, df 6, $P < 0.00005$). Although the numbers of women in each of the older categories are small, it would appear that the use of drugs and alcohol is less frequent among married victims.

The use of drugs and/or alcohol is also related to the employment status of the cases; drugs and /or alcohol were involved in 27% of the unemployed cases, but only13% of those who were employed ($\chi^2 = 12.13$, df 1, $P = 0.0005$).

The attacks on women who knew their aggressor were less likely to involve drugs and/or alcohol (10%) compared with 29% of those who did not know their aggressor ($\chi^2 = 17.16$, df 1, $P < 0.0001$).

There was no significant difference between Italian and non-Italian aggressors; the percentages in which drugs/alcohol were used were 22% and 23% respectively.

Drugs and/or alcohol were more likely in assaults which occurred outdoors, 30%, rather than those indoors, 18% ($\chi^2 = 7.55$, df 1, $P = 0.006$).

Children

Table 6 shows the age distribution of the 485 cases (excluding 4 missing values). It can be seen that the histogram is skew to the right, with a cluster of outlying cases of young children. This is seen more clearly in table 7, which shows the individual age frequencies of the younger women. The modal age is 22 years and the ages from 13 upwards show the typical form of the left side of a continuous frequency distribution, whereas at ages 10 or less there is one, or maybe two, clusters of very young children. Although from a statistical point of view the children aged 13, 14 and 15 might be considered left tail of the adult distribution, they are from many points of view still children.

There were 32 cases aged 15 years or less out of a total of 458 cases observed during the period of 15 years from 1999 to 2013, an average of two children per year. There does seem to be a seasonal effect; in the winter months from October to March, there were 26 cases, while in the summer months, April to September there were only 6 cases ($\chi^2 = 11.3$, $P < 0.001$).

From a statistical point of view, 32 cases is rather few to investigate the epidemiology of child violence, but there are some differences between the sixteen teenagers (aged 13, 14 or 15) and the sixteen younger children aged 10 or under. Excluding the cases with missing values, among teenaged victims, five out of 15 (33%) knew their aggressor, compared with 10 out of 13 (77%) of the younger children, ($P = 0.015$, Fisher's exact test); eight out of 15 (53%) of the teenagers were attacked outdoors compared with 1 out of 13 (8%) of those aged ≤ 10, ($P = 0.03$, Fisher's exact test) and ten out of 15 (67%) of the teenagers were penetrated (VP and/or AP) compared with 2 out of twelve (17%) of the younger children ($P = 0.025$, Fisher's exact test). There was no significant difference between the proportion of teenagers (9 out of 14, 64%) attacked by Italian aggressors and that of younger children (10 out of 13, 77%), and there was no significant difference in the proportion of attacks on teenagers (7 out of 16, 44%) reported to the police and that of younger children (4 out of 15, 27%).

Discussion

Although the concept of violence against women is relatively simple, the measurement of its incidence and prevalence, in general, or even in particular circumstances is difficult. The United Nations defines violence against women as "any act of gender based violence which results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion, or arbitrary deprivation of liberty, whether

Table 6. Summary of information relating to 32 child victims aged 15 years or less.

year	age	aggressor	relation	aggress.	number aggress.	Place	type aggress.*	preg. test	emerg. contrac.	rep. police
2000	13	known	uncle	Italian	1	indoors	DP,M	no	no	yes
2002	13	known	no rel.	Italian	1	indoors	DP	no	no	yes
2002	15	unknown	no rel.	not Ital.	1	outdoors	AP	no	no	no
2003	8	known	no rel.	not Ital.	1	indoors	VP	no	no	no
2003	4	known	no rel.	Italian	1	indoors	DP,M	no	no	yes
2004	3	unknown	no rel.	Italian	1	outdoors	M	no	no	yes
2005	15	unknown	no rel.	Italian	1	indoors	VP	no	no	no
2005	15	known	no rel.	Italian	1	indoors	DP,M	no	no	yes
2005	8	known	no rel.	Italian	>1	indoors	missing	no	no	yes
2006	14	known	no rel.	Italian	1	outdoors	AP	no	yes	yes
2006	4	unknown	no rel.	Italian	1	indoors	M	no	no	yes
2006	10	known	father	not Ital.	1	indoors	VP	no	no	yes
2006	5	known	no rel.	Italian	1	indoors	M	no	no	yes
2006	15	unknown	no rel.	Italian	1	indoors	VP	yes	no	no
2006	3	known	no rel.	Italian	1	indoors	DP	no	no	no
2007	3	missing	no rel.	missing	missing	missing	missing	no	no	no
2007	2	missing	no rel.	missing	missing	missing	missing	no	no	yes
2008	7	known	father	not Ital.	1	indoors	M	no	no	yes
2009	14	unknown	no rel.	not Ital.	1	indoors	VP	yes	no	no
2009	15	known	no rel.	Italian	1	indoors	VP	yes	no	yes
2010	13	unknown	no rel.	not Ital.	1	outdoors	VP	no	no	yes
2010	15	unknown	no rel.	not Ital.	1	outdoors	VP	no	no	yes
2010	15	missing	no rel.	missing	>1	missing	missing	no	no	no
2011	9	known	no rel.	Italian	1	indoors	M	no	no	yes
2011	15	unknown	no rel.	Italian	1	outdoors	M	yes	no	yes
2011	4	known	g.father	Italian	1	indoors	M	no	no	no
2011	14	unknown	no rel.	not Ital.	1	outdoors	VP	no	no	no
2011	15	unknown	no rel.	Italian	1	outdoors	VP	no	yes	yes
2011	10	missing	no rel.	missing	missing	missing	missing	missing	missing	missing
2012	15	unknown	no rel.	missing	1	outdoors	M	no	no	no
2013	3	known	no rel.	Italian	1	Indoors	M	no	no	yes
2013	3	known	cousin	Italian	1	Indoors	M	no	no	yes

*type of aggression: VP vaginal penetration, AP anal penetration, DP digital penetration, M molestation.

occurring in public or private life" (1). This is a very comprehensive definition of the problem, including everything between an uninvited caress on a crowded bus to a violent rape resulting in murder. It also implies that investigations of its extent need to use more specific case definitions which make comparisons between studies and the generalization of the extent of the problem difficult.

The incidence and prevalence of violence against women may be estimated for particular groups of women using a well defined case definition. For example, in a large urban teaching hospital in Germany, women seeking routine care with their

Table 7 - Distribution of 485 cases by five-year age groups (4 missing values). Each asterisk represents about 3 cases

Age group	n	%	
0-	9	2.0	***
5-	5	1.1	**
10-	8	1.8	***
15-	56	12.3	******************
20-	113	24.9	************************************
25-	80	17.6	*************************
30-	60	13.2	*******************
35-	60	13.2	*******************
40-	36	7.9	***********
45-	16	3.5	******
50-	5	1.1	**
55-	5	1.1	**
60-	0	0.0	
65-	1	0.2	*
70+	0	0.0	
	454	100.0	

gynecologists were asked to complete a short questionnaire, from which it was found that nearly one half of the women had suffered unwanted sexual attention, and 20% had been forced to participate in sexual activity (7% in childhood, 10% in adolescence and 6% in adulthood) (2). These results are interesting, but clearly cannot be generalized to all the women resident in the city or Germany and does not include women who do not seek routine care from gynecologists.

Similarly a recent report (3) of a randomized controlled trial of an Assault Resistance Program in three Canadian Universities showed that the program could reduce the incidence of completed rape from 9.8% in the control group to 5.2%. The results for attempted rape are similar, 3.4% in the resistance program group compared with 9.3% in the control group. That the program can importantly reduce the incidence of these forms of violence is very encouraging, but are the values for the control group generalizable to other Canadian Universities, or other European universities? Do nearly 20% of all female university students suffer rape or attempted rape each year? Rome is a city which has several universities, the largest, Sapienza University is adjacent to the hospital. Sapienza has about 125.000 students of whom about 60%, 75.000 are women. Applying the 20% value observed in the Canadian Universities would imply that about 15.000 cases of rape or attempted rape occur in our University *each year*. In a period of five years of study there would be 75.000 cases. If it were true, it would be a frightening prospect for any young woman seeking a University education.

Closer to the present study is the report (4) on the use of emergency department services by women victims of violence in Lazio, the region of Italy in which Rome is situated. By studying hospital records it was concluded that the prevalence of violence against women was high and that most of the victims had visited emergency departments many times before the current episode of violence. It also recommended that emergency department medical and

nursing staff should be prepared and trained to successfully manage victims of violence

Thus apart from its definition and the limited ability to generalize the results of studies of violence against women, these difficulties are compounded by the fact that the problem is, in great part, hidden, in the sense that it is not systematically registered or reported to the police or other authorities. Indeed, the Lazio study (4) noted that in the presence of a physician, victims may explain their injuries as "a fall down the stairs" and that this explanation was accepted even if clinical signs may have implied the contrary.

Our study refers to a centre specifically dedicated to women who suffer violence and thus, the cases who "fall down the stairs" or "walk into a door" are more likely to present in the general Casualty Department rather than our centre. Furthermore, women whose clinical condition is less serious may be less likely to come to our clinic. Thus we do not pretend that our results can provide reliable information on the frequency or extent of the problem of violence against women. We have made comparisons between subgroups of the cases in our study and these provide information that is easier to generalize than estimates based on the total sample of cases, but in any case, even the general conclusions need to be interpreted with caution.

The lack of statistical significance observed in the analysis of the temporal changes in the number of cases is perhaps surprising. The variation in the annual number of cases from year to year is not more than would be expected to occur by chance; indeed, if anything, there is too little variation. If the cases occurred randomly in time, the number of cases observed in each year should follow the Poisson distribution with estimated mean 30.5 and standard deviation $\sqrt{30.5} = 5.5$. Thus it would be expected that about 95% of the years would have 30.5 + 11.0 cases or between 19.5 and 41.5 cases per year. In fact among our 15 years the observed range was 25 to 38, rather less than predicted by the Poisson model. It is discouraging that the trend in the monthly number of cases is not declining significantly. The lack of significant variation among the number of cases in each month of the year is perhaps surprising; it might be hypothesized that more cases would occur in the holiday months or in summer rather than winter, but these data show no evidence of this kind. Even more surprising is the observation that there is no effect of the day of the week on the number of cases seen. A possible explanation might be that there is some smoothing or blurring of the data due to the fact that some events occurring on one day, may present at the emergency centre the next day or later. For example, if there were a peak of cases occurring on Sundays, this peak would be reduced if these victims tended to postpone going to the hospital until Monday or Tuesday. We have not been able to separate the day of the event and the day on which the victim came to the emergency clinic, and so we cannot investigate this hypothesis.

Among the cases which presented at our emergency clinic, the only factor which we found to affect the decision to report the attack to the police is the age of the victim. Attacks on younger victims, particularly children, are more likely to be reported than attacks on those who are older. However, violent crimes against women are notoriously under-reported. The Office for National Statistics for England and Wales has analyzed the 2013-14 Crime survey for England and Wales (5) and compared the results with recorded crime, which only includes offences known to the police. The Crime Survey showed that there has been a decline in violent crime incidents over the last 20 years, from 3.8 million in 1995 to 1.3 million in 2013/14. There has been a slight fall in the prevalence rates of sexual assault compared with the previous year, but many of the cases were not reported to

Table 8 - Distribution of the single years of age of the 176 cases aged less than 25, showing that the cases aged 13, 14 and 15 years seem to be part of the left hand tail of the age distribution of all cases, while those aged 2 to 10 years are outliers. Each asterisk represents one patient.

Age	n
2	1:*
3	5: *****
4	3: ***
5	1: *
6	0:
7	1: *
8	2: **
9	1: *
10	2: **
11	0:
12	0:
13	3: ***
14	3: ***
15	10: **********
16	8: ********
17	7: *******
18	16: ****************
19	15: ***************
20	21: *********************
21	23: ************************
22	29: *****************************
23	20: ********************
24	20: ********************

the police. Indeed, only 17% of the victims of sexual assault said that they had reported the most recent serious sexual assault to the police. The main reasons given for not reporting were embarrassment, fear of further humiliation, belief that the police could not help etc. The number of sexual offences actually reported to the police in 2013/14 was the highest recorded since 2002-03. As well as improvements in recording, this is thought to reflect a greater willingness of victims to come forward and report such crimes. Although just over 50% of our cases reported the attack to the police, which is three times as high as that found in the Crime Survey, it should be noted that our cases from the emergency centre are likely to have been more violently assaulted that those in the Crime Survey. Also, the Crime Survey included only adults aged 16-59 years, whereas we found that it was offences against younger women, especially children, which were more likely to be reported to the police.

The United Nations definition of violence against women is very comprehensive and includes the whole range of assaults from relatively minor to murder. Our sample of women who presented at the women's emergency department of the hospital are likely to include the more serious acts of violence (excluding murder) which require hospital attention. We have defined (VP and/or AP) to be particularly violent and this was suffered by 87% of the women attending our centre. It seems likely that our sample of patients represents just the tip of the iceberg of violence against women and there are a great number of women who suffer lesser violence, most of which does not come to the attention of any authorities. The women who suffer (VP and/or AP) suffer, not only the violence of the act itself, but also the risk of contracting sexually transmitted diseases, psychological trauma, difficulties with social and sexual relationships and so on. The consequences of this type of aggression do not cease with the discharge from hospital, but continue, maybe for a long time, maybe for a lifetime. An immediate consequence of VP is the possibility of pregnancy and, notwithstanding her physical and emotional state, the victim of rape must affront this possibility and decide how to react. Among the 371 women who suffered VP, 161 had emergency contraception, 56 had a negative pregnancy test, but 151 had neither a pregnancy test nor emergency contraception

(table 4). It is likely that some of these 151 women were using contraceptives and were reasonably sure that they could not become pregnant. The three women who had positive pregnancy tests may have known of their pregnancies before they were attacked and wished their pregnancies to continue.

The use of drugs and or alcohol in cases of violence perpetrated on women, does not seem to be increasing, at least among the cases which arrive at our women's emergency department. Indeed, drugs and or alcohol tend to be involved in the act of violence within a very restricted age range of the victims, from about 19 to 23 years of age. Among the 108 women in this age range, drugs and or alcohol were involved in 51 of the cases, nearly 50%. It would seem that some women in this age range, perhaps experiencing new freedoms from parental control, but inexperienced in the effects of drugs and alcohol, fall victims to males who deliberately take advantage of their innocence. The use of drugs and alcohol is less present among the older victims, and none of the acts of violence on those aged less than 18 years involved the use of these substances.

The interpretation of the results observed for the children is even more difficult, because fortunately the total number of cases, 32 is relatively small. However, attacks on children tend to occur in winter rather than summer. Children aged under 14 are more likely to know their aggressor, to be attacked by Italians, to be attacked by a single aggressor, the act occurs indoors and the attack is more likely to be reported. Among pubertal girls aged 14-15, the results are the contrary; they are less likely to know their aggressor and are more likely to be attacked in the open, outdoors. If the phenomenon of violence against women can be described as an iceberg, violence against children is likely to be an even bigger iceberg. Indeed, a study (6) concludes that "child sexual abuse is largely hidden from adult society" . Younger victims, it would seem, prefer to confide in their "best friends" rather than parents or police. It seems that children may not report abuse to anyone in authority especially if they are under threat of more violence.

Violence against women has been a scourge on human society at all points in history and in all societies in the world. If progress has been made in some societies these advances are often, even in modern times, forgotten especially in times of war. Progress has been made, the Church and the British Government no longer condone the burning of witches, but even as late as 1981, the Italian Criminal Code regarded the "honor killing" of women or their sexual partners as a reason for mitigating the jail sentence in such cases of murder. In 1996 the World Health Assembly declared violence to be a major public health issue (7), and promised a 1-year Global Campaign on Violence Prevention.

There has been some global warming, and perhaps the iceberg of violence against women has started to melt, but there is still a very long way to go.

Riassunto

La violenza contro le donne a Roma: un'analisi dei casi trattati al Pronto Soccorso Ginecologico del Policlinico Umberto I tra il 1999 ed il 2013

Introduzione: Il Pronto Soccorso di uno dei principali ospedali di Roma vede in media ogni anno 30 casi di violenza contro le donne. È da notare che questi casi non sono rappresentativi di tutti i casi di violenza contro le donne a Roma e non possono essere usati per stimare la prevalenza o l'incidenza del fenomeno ma possono fornire alcune indicazioni sulle vittime e i loro aggressori, sull'uso di droghe o alcol, sui fattori che possono avere un'influenza sul denunciare l'accaduto alla polizia e sulle violenze subite dalle bambine.

Metodi: La casistica di tutte le 458 donne viste al Pronto Soccorso tra il 1999 e il 2013 è stata esaminata. I dati estratti sono stati inseriti in un file excel. In particolare sono stati studiati usando tabelle di frequenza e appropriati test statistici: la variazione temporale nel

numero di casi, i tipi di aggressione, l'uso di droghe e alcol, il denunciare l'aggressione subita alla polizia e la violenza contro le bambine.

Risultati: Si sono osservate piccole modifiche nel numero di casi visti durante i 15 anni analizzati; non c'è un effetto stagionale significativo o differenze tra giorni della settimana. Poco più della metà degli episodi sono stati denunciati alla polizia, con una frequenza minore tra le donne di età più avanzata. Circa l'87% dei casi ha subito penetrazione vaginale e/o anale. L'uso di droghe e/o alcol era più comune tra le donne non coniugate di età 21-25 anni (43%). Ci sono stati 32 casi di violenza su bambine di età inferiore ai 16 anni.

Conclusioni: Si sono osservate piccole modifiche nel numero e caratteristiche degli episodi di violenza visti nell'Ospedale Policlinico Umberto I di Roma nel periodo 1999-2013. Questi casi, sebbene diano informazioni limitate sull'epidemiologia della violenza contro le donne a Roma, sottolineano che questo grande problema sociale e culturale non presenta per ora alcun miglioramento.

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