# Sexual assault: a descriptive study of 2500 female victims over a 10-year period

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**Objective** To describe the victims of sexual assault and the circumstances in which the assaults occur.

Design Descriptive case study.

**Setting** Centre for Victims of Sexual Assault (CVSA), Rigshospitalet, Copenhagen, Denmark.

**Population or sample** A total of 2541 women attending CVSA from 2001 to 2010.

**Methods** All women attending CVSA underwent a standardised data collection procedure. Descriptive bivariate analysis and logistic regression analysis were performed.

**Main outcome measures** Associations between different assault characteristics and (1) the age of the victim and (2) the relationship between victim and perpetrator.

**Results** Two-thirds of the victims were aged 15–24 years. Seventyfive percent had met the perpetrator before the sexual assault and 70% reported the assault to the police. A physical injury was found in 53, and 27% sustained an anogenital lesion. Alcohol was involved in 60% of the cases. One-third of the victims had experienced a previous sexual assault(s). Women were more likely to report to the police when they were assaulted by a stranger (odds ratio [OR] 1.9, 95% confidence interval [95% CI] 1.3–2.6) and sustained a physical injury (OR 1.7, 95% CI 1.4–2.2) or anogenital lesion (OR 1.5, 95% CI 1.1–2.0). Women aged 45 years or older were more likely to sustain a physical injury (OR 2.0, 95% CI 1.2–3.2) or an anogenital lesion (OR 2.1, 95% CI 1.4– 3.2).

**Conclusions** Our results challenge the typical stereotype of a violent rape attack by a stranger, which is important in creating an environment where women are not reluctant to seek help after a sexual assault. Young age and drinking alcohol were risk factors for sexual assault, and we need to address this when considering preventive strategies.

Keywords Risk factors, sexual assault.

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# Introduction

The need for medical, legal and psychological assistance following a sexual assault has resulted in the development of specialised centres for victims of sexual assault (CVSA) throughout the world. In 2000, the largest of eight Danish CVSAs opened in Copenhagen, providing a free 24-hour service independent of police reporting. The centre is situated in the gynaecological department at Rigshospitalet and serves both male and female victims from the age of 12 years. The staff consists of a gynaecologist, specialised nurses, trained psychologists and social workers. The centre offers physical examination, medical treatment, social counselling and psychotherapy. The reported prevalence of sexual assault varies from 7 to 22%.<sup>1-4</sup> Over the last decade, it has been increasingly recognised that many patients seen in the healthcare system have a history of sexual assault. In 2011, the American College of Obstetricians and Gynecologists recommended that clinicians routinely screen their female patients for a history of sexual assault.<sup>5</sup> In 2002, the World Health Organization classified sexual violence as a major public health problem and underlined the need for further research in this field.<sup>6</sup>

Research on sexual assault has been constrained by several factors. Sexual assault has not been defined or measured uniformly in studies, and most of the research has used retrospective, self-reported questionnaires with the potential for recall bias. Women are more hesitant in reporting their assault to the police if the perpetrator is an intimate or former partner, and studies restricted to only police-reported cases could have limited external validity for all assaults.<sup>7-9</sup>

Identifying risk factors for sexual assault may be a prerequisite for both the prevention of assaults and the improvement of early interventions. To better develop measures to prevent sexual assault we need to explore the circumstances in which sexual assaults occur, which women are vulnerable in which settings, and identify as well as quantify the most important contributory factors.

In this work our aim was to describe the victims of sexual assault and the circumstances in which the assaults occurred to identify risk factors—knowledge that is required for the development of preventive measures. We focused especially on how age and the relationship between the victim and the perpetrator were associated with the circumstance of the assault.

# **Methods**

### Study group and design

This descriptive case-only study included data from all women attending the Copenhagen CVSA for sexual assault or attempted sexual assault between March 2000 and December 2010. The centre serves the eastern part of Denmark, with a population of approximately 3 million people. All the women underwent a standardised data collection procedure. This included variables describing the victim, the sexual assault and the perpetrator, and was filled out by trained doctors and/or nurses performing the examinations. Data were updated after 1 month and stored in a database held at the CVSA. All analyses presented in this paper were retrieved from this database. There was no external monitoring of data entry, but data were verified and adjusted by the clinicians working at the centre.

#### Description of the standardised information

We generated descriptive categories for the different variables, as described below. We report numbers and percentages for all the categories.

All the perpetrators were men. The perpetrator was defined as being known to the victim if he was a partner or former partner, relative, friend or schoolmate. If, for example, the perpetrator was a teacher, medical doctor or police officer he was categorised as an authority figure. When a woman reported brief contact with the perpetrator before the assault he was categorised as known for <24 hours; this also included casual acquaintances and taxi drivers. If the woman had never seen the perpetrator before he was categorised as unknown.

Previous sexual assault or childhood sexual abuse was categorised as either 'yes' or 'no'. If the women attended the centre for more than one assault in the 10-year period, each assault was recorded independently.

Police involvement was categorised as 'yes' if the victim reported to the police regardless of when. If the complaint was not accepted by the police, it was labelled as 'rejected'.

When the place of assault was either the victim's or the perpetrator's home it was labelled as 'home'. Outside included streets or parks. Workplace also included school. Vehicle included both a car and public transport. Restaurant also included a bar or hotel.

The victim's alcohol intake was categorised into either five or more or less than five alcoholic units on the day of the assault. If a woman reported amnesia for parts of the assault due to alcohol intake she was categorised as a user of more than five units.

From 2004 to 2010 all women were asked whether they suspected they had been drugged up to the assault, and this category was based solely on the woman's statement.

If the women reported resistance it was categorized as either verbal or physical.

If a woman presented with any physical signs of violence associated with the assault this was recorded as 'yes' to physical findings. These ranged from slight bruising of the skin to petechial haemorrhages following strangulation. The decision to record as 'yes' was made by the doctor performing the examination.

Anogenital injuries were categorised as present if the findings included injuries to the genitals such as lacerations, abrasions and bruising. If the findings were recorded as normal by the gynaecologist, injuries were categorised as not present. The presence of redness and swelling of the external genitals was not recorded in this category, as we regarded this as a non-specific finding. Gynaecological findings were only included for women who reported vaginal and/or anal penetration or attempted penetration.

For each of the variables a 'missing' category was added. This included missing information and when the investigator did not ask for or recorded the information. This category was only reported in the tables if it accounted for more than 15% of the answers for each variable.

#### Statistical analysis

Data were analysed using IBM SPSS Statistics for Windows (Version 19.0; Armonk, NY, USA). Descriptive bivariate analysis was performed to study associations between different characteristics regarding the assault and (1) the age of the victim and (2) the relationship between victim and perpetrator. We report numbers and percentages and *P*-values describing the probability that an association was due to chance. *P*-values were based on likelihood ratio (chi-square) statistics, and values <0.05 were considered statisti-

cally significant. To further investigate the associations found in the bivariate analysis we performed logistic regression analysis to adjust for influences from other variables. We adjusted for all the variables included in the descriptive bivariate analysis and odds ratio (OR) and 95% confidence intervals (95% CI) were reported.

# Results

Of the 2912 people who visited the Copenhagen CVSA during the 10-year study period, 2541 were women who had experienced sexual assault or attempted sexual assault; these constituted the study group. The 371 patients not included were men, or women who were seen for other reasons not categorised as sexual assault.

The age of the women ranged from 12 to 93 years with two-thirds being between the ages of 15 and 24 years. Two-thirds of the reporting women had some prior relationship with their perpetrator (Table 1). Almost half had an intimate knowledge, reporting the perpetrator as a current or former boyfriend, family member or someone they considered a friend. These women were most often assaulted in their own or the perpetrator's home (Table 2).

Women with no previous contact or knowledge of their perpetrator were more likely to report to the police (OR 1.88, 95% CI 1.35–2.61) and were at higher probability of sustaining a physical injury during the assault than women who knew their perpetrator (OR 1.54, 95% CI 1.12–2.12) (Table 3). A physical injury was found in 53% of the women. Of the 70% of women who reported vaginal/anal penetration, 27% had a genital injury. Nearly half the women said they put up some kind of resistance during the assault, most often verbal resistance (Table 1).

Women older than 45 years were more likely to report to the police and to sustain an anogenital or physical injury than women aged 12–24 years (OR 2.23, 95% CI 1.30– 3.82; OR 2.10, 95% CI 1.35–3.22; and OR 2.00, 95% CI 1.24–3.23, respectively) (Table 3). They were more likely to be assaulted in their own or the perpetrator's home, and less likely to be heavily intoxicated at the time of the assault than women aged 12–24 years (Table 1).

Almost half the women had an alcohol intake of more than five units. The intake of alcohol resulted in amnesia in 10% of the women. Overall, 12% of women suspected that they had been drug raped (Table 1). The majority of these women were 25–34 years old and had met the perpetrator within the 24 hours prior to the assault. Women who drank alcohol on the day of the assault were less likely to report their assault to the police and had a higher risk of sustaining a physical injury (OR 0.61, 95% CI 0.46–0.79 and OR 1.55, 95% CI 1.20–2.01, respectively) (Table 3). Women who drank more than five units of alcohol were more often sexually assaulted by a stranger or someone they met within the 24 hours prior to the assault (Table 2).

Almost a third of the women reported that they had been diagnosed with a chronic medical or psychiatric condition, and 20% reported daily intake of different psychotropic drugs (data not shown). The same proportion (27%) reported previous episodes of sexual assault or childhood sexual abuse (Table 2).

Our bivariate analyses demonstrated that almost all the variables were significantly associated with the age of the victims and the relationship between the victim and perpetrator. When adjustment was made for all the other variables listed in Tables 1 and 2, we found alcohol intake, unknown perpetrator, age and injury to be significantly associated with whether or not the assault was reported to the police (Table 3).

# Discussion

# Main findings

In this study we examined data collected at the Copenhagen CVSA from 2001 to 2010. We placed special emphasis on how the age of the victim and the victim–perpetrator relationship influenced specific assault characteristics. Our results suggest several differences between the women according to these two variables.

Consistent with previous research, we found that young age was a risk factor for sexual assault.<sup>10,11</sup>

The majority of victims knew their perpetrator intimately or had met him within the 24 hours before the assault, similar to findings from other sexual assault centres.<sup>12,13</sup> Previous research found that women were more likely to involve the police when the perpetrator was a stranger,<sup>2,7–9,14</sup> consistent with our findings. We also found that when the victims were older than 45 years and were assaulted by a stranger they were more likely to involve the police. Much of the literature regarding victims of sexual assault is based solely on cases reported to the police. Our results suggest that such samples could underestimate the proportion of victims who know the perpetrator.

### Strengths and limitations

The large number of women included in this study combined with the systematic and extensive data collection procedure validate the observed findings.

We could not control for the clinical evaluations by different examiners, although the nurses and doctors had a similar level of training and experience and were routinely trained and updated on how to fill in the questionnaires.

For most of the categories we only have the women's statements—they are often seen directly after the assault, perhaps still intoxicated and in shock. These factors all affect their willingness to answer questions as well as their

Table 1. Age-stratified	characteristics of	victims of	sexual assaults
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Age stratification	12–24 years, <i>n</i> (%)	25–34 years, <i>n</i> (%)	35–44 years, <i>n</i> (%)	45+ years, <i>n</i> (%)	Total, <i>n</i> (%)	P-value
Police reporting						
Yes	1127 (68.7)	338 (66.4)	156 (69.6)	135 (84.4)	1756 (69.3)	< 0.001
No	440 (26.8)	160 (31.4)	53 (23.7)	7 (10.6)	670 (26.4)	
Rejected	38 (2.3)	8 (1.6)	8 (3.6)	7 (4.4)	61 (2.4)	
Place of assault						
Home	881 (53.5)	296 (57.9)	137 (61.2)	109 (68.1)	1423 (56.0)	0.002
Outside	444 (27.0)	113 (22.1)	52 (23.2)	35 (21.9)	644 (25.3)	
Workplace	56 (3.4)	11 (2.2)	3 (1.3)	2 (1.3)	72 (2.8)	
Vehicle	119 (7.2)	27 (5.3)	15 (6.7)	5 (3.1)	166 (6.5)	
Restaurant	87 (5.3)	44 (8.6)	12 (5.4)	5 (3.1)	148 (5.8)	
Relation to perpetr	ator					
Known	727 (44.2)	205 (40.2)	114 (50.9)	70 (43.8)	1116 (44.0)	0.134
Authority	28 (1.7)	15 (2.9)	5 (2.2)	5 (3.1)	53 (2.1)	
<24 hours	360 (21.9)	129 (25.3)	47 (21.0)	26 (16.3)	562 (22.1)	
Unknown	422 (25.7)	132 (25.9)	45 (20.1)	46 (28.8)	645 (25.4)	
Victim alcohol intal	ke 🛛					
None	526 (32.0)	163 (31.9)	75 (33.5)	55 (34.4)	819 (32.2)	0.003
<5 drinks	348 (21.1)	85 (16.6)	37 (16.5)	48 (30.0)	518 (20.4)	
≥5 drinks	678 (41.2)	233 (45.6)	96 (42.9)	44 (27.5)	1051 (41.4)	
Suspected drug rap	e					
Yes	135 (10.8)	72 (19.3)	15 (9.7)	5 (4.0)	227 (11.9)	< 0.001
No	1067 (85.6)	286 (76.7)	129 (83.2)	116 (92.1)	1598 (84.0)	
Resistance						
No	693 (42.1)	232 (45.4)	108 (48.2)	67 (41.9)	1100 (43.3)	0.316
Verbal	509 (30.9)	138 (27.0)	56 (25.0)	51 (31.9)	754 (29.7)	
Physical	231 (14.0)	60 (11.7)	29 (12.9)	21 (13.1)	341 (13.4)	
Physical findings						
Yes	811 (49.3)	301 (58.9)	135 (60.3)	100 (62.5)	1347 (53.0)	< 0.001
No	709 (43.1)	177 (34.6)	75 (33.5)	45 (28.1)	1006 (40.0)	
Anogenital injuries						
Yes	307 (26.5)	78 (22.5)	48 (28.9)	45 (40.2)	478 (26.8)	0.015
No	655 (56.5)	214 (61.8)	88 (53.0)	54 (48.2)	1011 (56.7)	

The P-values indicate the overall association between the groups within the different variables and different age groups.

memory of the assault. We have tried to compensate for this by going through the data collected again 1 month after the initial visit and adding any new information that might have emerged since the initial contact.

Furthermore, it is not known what motivates victims to seek help at a CVSA following a sexual assault. Some have suggested that only a third of women seek help after a sexual assault.<sup>8</sup> Although some victims receive help from the CVSA, others receive help from family physicians or counsellors, and still others do not talk about their assault to anyone. There could be differences between these groups of women.

#### Interpretations

The importance of both anogenital and physical injuries has been emphasised for many years, but there is still no consensus on how to document these injuries and what implications they should have in regard to the legal aspects of sexual assault.<sup>15–17</sup> The risk of sustaining a physical injury was significantly higher for women who were assaulted by a stranger. We also found that women with the highest chance of sustaining both a physical and an anogenital injury were those aged over 45 years. Previous studies have shown that regardless of the victim's relationship to the perpetrator, women are more likely to report to the police when they sustain a physical injury during the assault, and this is also borne out by our results.<sup>2,7–9,14</sup>

The degree of resistance is an important factor for the way the victim and others perceive the sexual assault.<sup>18,19</sup> Our study shows that almost half the women did not resist, either physically or verbally, during the assault. Feeling paralysed is a common reaction, especially when a woman fears for her life.<sup>20</sup> If the general attitude is that a woman should and would scream and fight when assaulted, women might blame themselves and therefore be less willing to talk about their experiences with others. We found

Perpetrator stratification	Known perpetrator, n (%)	Authority, n (%)	Known <24 hours, n (%)	Unknown perpetrator, n (%)	Total, n (%)	<i>P</i> -value
Former assault/abuse						
Yes	319 (28.6)	7 (13.2)	149 (26.5)	154 (23.9)	629 (26.5)	0.012
No	530 (47.5)	32 (60.4)	304 (54.1)	345 (53.5)	1211 (51.0)	
Missing	267 (23.9)	14 (26.4)	109 (19.4)	146 (22.6)	536 (22.6)	
Police reporting						
Yes	728 (65.4)	40 (75.5)	370 (66.2)	507 (78.8)	1645 (69.4)	< 0.001
No	342 (30.7)	10 (18.9)	159 (28.4)	116 (18.0)	627 (26.5)	
Rejected	25 (2.2)	1 (1.9)	18 (3.2)	9 (1.4)	53 (2.2)	
Place of assault						
Home	884 (79.2)	31 (58.5)	326 (58.0)	126 (19.5)	1367 (57.5)	<0.001
Outside	103 (9.2)	4 (7.5)	101 (18.0)	383 (59.4)	591 (24.9)	
Workplace	42 (3.8)	7 (13.2)	7 (1.2)	9 (1.4)	65 (2.2)	
Vehicle	31 (2.8)	4 (7.5)	53 (9.4)	74 (11.5)	162 (6.8)	
Restaurant	35 (3.1)	5 (9.4)	60 (10.7)	36 (5.6)	136 (5.7)	
Age of the victim	55 (511)	5 (51.1)		50 (510)	100 (017)	
12–24 years	727 (65.1)	28 (52.8)	360 (64.1)	422 (65.4)	1537 (64.7)	0.065
25–34 years	205 (18.4)	15 (28.3)	129 (23.0)	132 (20.5)	481 (20.2)	0.000
35–44 years	114 (10.2)	5 (9.4)	47 (8.4)	45 (7.0)	211 (8.9)	
45+ years	70 (6.3)	5 (9.4)	26 (4.6)	46 (7.1)	147 (6.2)	
Victim alcohol intake	, 0 (0.0)	5 (51.1)	20 (110)	10 (711)		
None	477 (42.7)	31 (58.5)	69 (12.3)	196 (30.4)	773 (32.5)	<0.001
<5 drinks	230 (20.6)	7 (13.2)	111 (19.8)	141 (21.9)	489 (20.6)	0.001
≥5 drinks	344 (30.8)	8 (15.1)	354 (63.0)	267 (41.4)	973 (40.9)	
Suspected drug rape	544 (50.0)	0 (15.1)	554 (05.0)	207 (+1.+)	575 (+0.5)	
Yes	75 (9.0)	0 (0.0)	75 (18.0)	49 (10.4)	199 (11.3)	<0.001
No	741 (88.8)	31 (91.2)	325 (77.9)	402 (85.7)	1499 (85.5)	-0.001
Resistance	741 (00.0)	51 (51.2)	525 (11.5)	402 (05.77	1455 (05.5)	
No	482 (43.2)	27 (50.9)	260 (46.3)	281 (43.6)	1050 (44.2)	<0.001
Verbal	343 (30.7)	9 (17.0)	147 (26.2)	218 (33.8)	717 (30.2)	<0.001
Physical	177 (15.9)	11 (20.8)	80 (14.2)	59 (9.1)	327 (13.8)	
Physical findings	177 (13.5)	11 (20.0)	00 (14.2)	55 (5.1)	527 (15.0)	
Yes	542 (48.6)	17 (32.1)	299 (53.2)	393 (60.9)	1251 (52.7)	<0.001
No	486 (43.5)	28 (52.8)	235 (41.8)	202 (31.3)	951 (40.0)	×0.001
Anogenital injuries	400 (45.5)	20 (32.0)	255 (41.0)	202 (31.3)	951 (40.0)	
Yes	227 (25.1)	5 (17.9)	123 (30.4)	100 (27.0)	455 (26.7)	0.002
No	532 (58.8)	11 (39.3)	225 (55.7)	204 (55.1)	455 (20.7) 972 (60.0)	0.002
	JJZ (J0.0)	11 (59.5)	223 (33.7)	204 (55.1)	972 (00.0)	

Table 2. Characteristics of victims of sexual assaults stratified according to the victim-perpetrator relationship

The *P*-values indicate the overall association between the groups within the different variables and the relationship between victim and perpetrator.

that the women who verbally resisted during their assault were more likely to sustain a physical injury, but no correlation was found between resistance and the risk of sustaining an anogenital injury and reporting to the police.

The literature suggests that alcohol intake and drug abuse are risk factors for sexual assault.<sup>10,21–24</sup> Consistent with these findings, the average alcohol intake of the women in our study was high. The high intake was distributed equally between those aged 12–44 years. Alcohol might increase the risk of sexual assault by its physically debilitating effects, but also by diminishing a woman's

capacity to perceive and respond to situations in which she is at risk. A study regarding perceptions of guilt after sexual assault has shown that both men and women are likely to view a woman as more sexually available and more responsible for the sexual assault if she is intoxicated.<sup>25</sup> The intake of alcohol by the women reported in our study could be even higher because women may underreport their alcohol consumption to deflect any assumptions about their responsibility for the assault.

Childhood sexual abuse has been found to be a risk factor for later adult sexual re-victimisation.<sup>2,11,26–29</sup> We found that

Table 3. Logistic regression analyses of subgroups of sexually assaulted women

	Reporting to the police (n = 1854)	Anogenital injuries (n = 1527)	Physical injury ( <i>n</i> = 1745)
Alcohol intake of 1–5 units*	0.68 (0.50–0.94)	0.86 (0.61–1.20)	1.49 (1.10–2.01)
Alcohol intake >5 units*	0.61 (0.46–0.79)	0.96 (0.72–1.28)	1.49 (1.10–2.01)
Unknown perpetrator**	1.88 (1.35–2.61)	1.15 (0.82–1.62)	1.54 (1.12–2.12)
Place of assault outside***	1.49 (1.10–2.02)	0.67 (0.48–0.94)	1.30 (0.95–1.74)
Victim age 25–34 years****	0.73 (0.56–0.95)	0.82 (0.60-1.11)	1.47 (1.13–1.93)
Victim age 45 years or older****	2.23 (1.30–3.82)	2.10 (1.35–3.22)	2.00 (1.24–3.23)
Physical injury	1.72 (1.37–2.17)	2.54 (1.95–3.31)	_
Anogenital injury	1.51 (1.14–1.98)	_	2.51 (1.93–3.27)
Verbal resistance	1.16 (0.88–1.54)	0.89 (0.66–1.20)	2.22 (1.70–2.90)

Values given are odds ratios with 95% confidence interval, all adjusted for the other variables in Tables 1 and 2.

\*Compared with women who had zero alcohol intake.

\*\*Compared with women who knew their perpetrator.

\*\*\*Compared with women assaulted in their home.

\*\*\*\*Compared with women aged 12-24 years.

27% of the women had experienced a previous sexual assault. Our results point to a possible connection between having experienced previous sexual abuse and knowing the perpetrator, perhaps suggesting that these women are in a highrisk environment, but the large number of 'missing' entries in this category makes final conclusions difficult. The 23% of missing answers on this topic show that even in our setting it is difficult to ask and answer questions regarding previous assaults. Because we know that previous sexual assault/abuse is a precursor for later poor health, an increase in both somatic and psychiatric symptoms and an increase in complaints during pregnancy<sup>1,30–36</sup> we need to investigate this group of victims further.

We know that a third of the women seen at the CVSA have been diagnosed with a chronic illness. Although our database coded women as having or not having an unspecified chronic illness we know that 20% of women had a daily intake of psychotropic drugs, suggesting that a significant proportion had pre-existing mental health problems; this has also been found in the population of other sexual assault centres.<sup>37</sup> Several subgroups within the group of sexually assaulted women are more likely to report poor health than others. Women exposed to both child and adult sexual assault, women who experience additional emotional/physical abuse and women who know the perpetrator intimately more frequently report poor health.<sup>1,11,38</sup> A Danish study from 2010 including women who reported childhood sexual abuse showed that those who reported later sexual re-victimisation had suffered more severe childhood sexual abuse and had a higher psychological vulnerability than women only reporting childhood sexual abuse (i.e. not as an adult too).<sup>39</sup> We need to see if and how the physical and mental health of these groups differ as well as how they compare with the general population. To determine whether the possible differences in health between the groups are cause or effect of the sexual assault, we need to investigate health status before as well as after the reported sexual assault, and a study regarding this aspect has been launched.

# Conclusions

The nature of the victim-perpetrator relationship can influence perceptions of the seriousness and consequences of a sexual assault. According to our results, sexual assaults fitting the typical rape stereotype of a violent assault by a stranger are more likely to be reported and acknowledged as a sexual assault.

Preventive measures should therefore challenge these stereotypical views on sexual assault. We need to raise awareness of the fact that most sexual assaults are perpetrated by someone known to the woman, often in familiar surroundings. Many victims will not sustain a physical or anogenital injury and might not scream or fight against the perpetrator. If we want to change the general attitudes towards sexual assault, this information should not only target young people of both genders, who we know are at risk, but also the police, healthcare professionals and the general public. We also need to address the strong evidence linking alcohol to the risk of sexual assault.

# **Disclosure of interests**

The authors declare that they have no competing interests.

# Contribution to authorship

The study was designed by ML, MH and ØJ. ML analysed the data, and interpreted the results with help from MH and ØJ. ML wrote the article and all authors commented on and contributed to the revision of drafts and the final version of the article.

#### Details of ethics approval

The present study used anonymised data from the CVSA database, and therefore, it was exempt from full institutional review board approval. Approval from the Danish Data Protection Agency was granted on 1 May 2010.

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# Renewed efforts needed to counter myths and misconceptions that persistently pervade sexual violence

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The findings from Larsen et al. (BIOG 2014; 122:578-84) add another layer to the canvas of what has become a depressingly familiar picture of sexual violence against women, and provide further evidence of the need for renewed efforts to counter the myths and misconceptions that persistently pervade the subject. The most striking reflection of the 'rape myths' observable in their analysis of the 2541 women who attended the Centre for Victims of Sexual Assault in Rigshospitalet, Copenhagen over the 10-year study period, is in the characteristics of the assaults that were known to have been reported to the police. Despite reporting being much higher in this clinic sample than is typically found in community samples (at nearly 70% of assaults), it remained significantly more likely when it mapped most closely to that which is culturally scripted as 'rape' (i.e. when it was perpetrated by a stranger, when physical injuries were sustained and when the victim resisted the assault). Yet, contrary to this prevailing perception: some 75% of the women knew the perpetrator before the

assault (a proportion similar to that found in our analysis of data from the third British National Survey of Sexual Attitudes and Lifestyles [Natsal-3]; Macdowall et al. The Lancet 2013:382(9907);1845–55); in only around a half of instances were there any signs of physical injury, and less than half of the women reported that they resisted the assault (either verbally or physically). Larsen et al. also found that women who had consumed alcohol were less likely to report an assault to the police than those who had not, even though they were more likely to have sustained a physical injury; presumably, as they too had internalised the view that if a women is in any way intoxicated then they 'only have themselves to blame'. These findings should challenge how sexual assault is perceived.

What this study does not, and cannot, tell us anything about, is those women who do not seek help following a sexual assault, and the evidence suggests that these are likely to be higher in number than those that do. It is possible that women may have sought help from other sources but in our analysis of Natsal3, we found that some 60% of women who had experienced sex against their will had not spoken to anyone about the event, let alone sought professional help or reported it to the police. Such is the stigma and shame that surrounds being a victim of sexual violence. The UK National Institute for Health and Care Excellence (NICE) recommends that trained staff in a range of health and social services ask users about experience of partner and sexual violence as an integral part of 'good clinical practice' (NICE Public Health Guidance 50, 2014; London: NICE). This must surely be a good place to start. The challenge, however, is in ensuring that such staff receive appropriate training and that they know where they can refer women, and men, who have suffered such violence so that they can receive the specialist care and support that they need

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