



Three groups of suspects in police reported rape cases: First-time suspects, recidivists and unidentified suspects. A comparative study



Bjarte Frode Vik^{a,b,*}, Kirsten Rasmussen^{c,d}, Berit Schei^{e,f}, Cecilie Therese Hagemann^{a,f}

^a Norwegian University of Science and Technology (NTNU), Department of Clinical and Molecular Medicine, P.B. 8905, N-7491, Trondheim, Norway

^b St. Olavs Hospital, Department of Neuropsychiatry, P.B. 3250 Sluppen, N-7006, Trondheim, Norway

^c Norwegian University of Science and Technology (NTNU), Department of Psychology, 7491, Trondheim, Norway

^d St. Olavs Hospital, Forensic Research Unit, Brøset, P.B. 1803 Lade, 7440, Trondheim, Norway

^e Department of Public Health and Nursing, Norwegian University of Science and Technology, P.B. 8905, N-7491 Trondheim, Norway

^f Department of Obstetrics and Gynecology St. Olavs Hospital, P.B. 3250 Sluppen, N-7006, Trondheim, Norway

A B S T R A C T

Background: Previous studies show that reported suspects in adult rape cases often have a criminal record, and that many are rape recidivists. Annual numbers of police reported rapes have dramatically increased but the proportion of rapes being prosecuted and numbers of convictions are low. To increase knowledge about the suspects in cases of police reported rapes; whether they have committed the crime before or not may inform preventive measures.

Aims: To compare suspect, victim, and assault related characteristics among different groups of police-reported rape suspects (first-time suspects, recidivist suspects and unidentified suspects).

Methods: Retrospective, descriptive study of suspects in cases of rape or attempted rape reported by women ≥ 16 years of age in the Sør-Trøndelag police district, Norway, from 2003 to 2010.

Results: Among the 356 suspects included, 207 (58%) were first-time suspects, 75 (21%) were recidivists and 74 (21%) were unidentified. Being a first-time suspect was significantly associated with victim being < 18 years, recidivist suspect was significantly associated with victim being a partner, both suspect- and victim unemployment, and suspect reporting intake of other drugs than alcohol. When suspects were unidentified, victims were more likely to have consumed alcohol prior to assault, and reporting the suspect being of non-Western origin. Also, the reporting of a public venue was more frequent when unidentified suspect.

Conclusions: The study shows different patterns in groups of suspects as to victim and assault characteristics. Detection and description of such differences can provide valuable information for future prevention programs, police investigation methods and health care guidelines.

1. Introduction

There has been a steady increase in police-reported rapes in Norway, from 400 per year in the 1990s to almost 1600 per year in 2016.^{1,2} Despite increasing rates of police-reported rapes, the percentage of cases proceeding to prosecution is low and even decreasing in Norway, in line with findings from other countries.^{3,4}

During the last 30 years a major focus of research and policy implications has been on the sexual recidivists and the prevention of sexual recidivism.^{5,6} This is a result of the perception that sexual offending is a life-course persistent inclination, and it has led politicians to seek predominantly punitive solutions to a problem as complex as sexual violence. New research underlines the importance of understanding the origin and the development of sexual offending over time and the factors responsible for it, to better understand and prevent sexual recidivism in the future.⁷ It has also been emphasized that the attention regarding research on prevention of sexual assault and offender treatment should be drawn towards youths who commit sexual

crimes, as all data point to the origin of sexual offending in the early adolescent years.⁸ Traditional theories regarding sexual assault postulate that sexual offenders specialize in types of victims and/or offences and are categorized in certain typologies.^{5,9,10} Research has shown that rapists often have many previous convictions for a violent crime, and that they resemble violent offenders or criminals in general. In contrast, those convicted for sexual crimes against children tend to engage in sexual offending exclusively.^{5,11} There are few characteristics, traits or patterns of human behavior which can be used to generalize hallmarks in a population of sexual assailants.¹² On the other hand, according to a report from the Oslo Police District (OPD), the population of sexual offenders are different from others in several ways.¹³ They are both more victimized and victimizing, they have more mental health problems and have far more often a criminal record in the police files than the general male population. Two thirds of the persons reported to the OPD for rape in the year 2010 had formerly registered criminal activity in police files. In the period 2000–2010 the OPD registered an increase in sexual assaults committed by men of non-European descent. The

* Corresponding author. St. Olavs University Hospital, Dept. of Neuropsychiatry, Trondheim University Hospital, P.B. 3250 Sluppen, Trondheim, N-7006, Norway.
E-mail address: bjarte.vik@ntnu.no (B.F. Vik).

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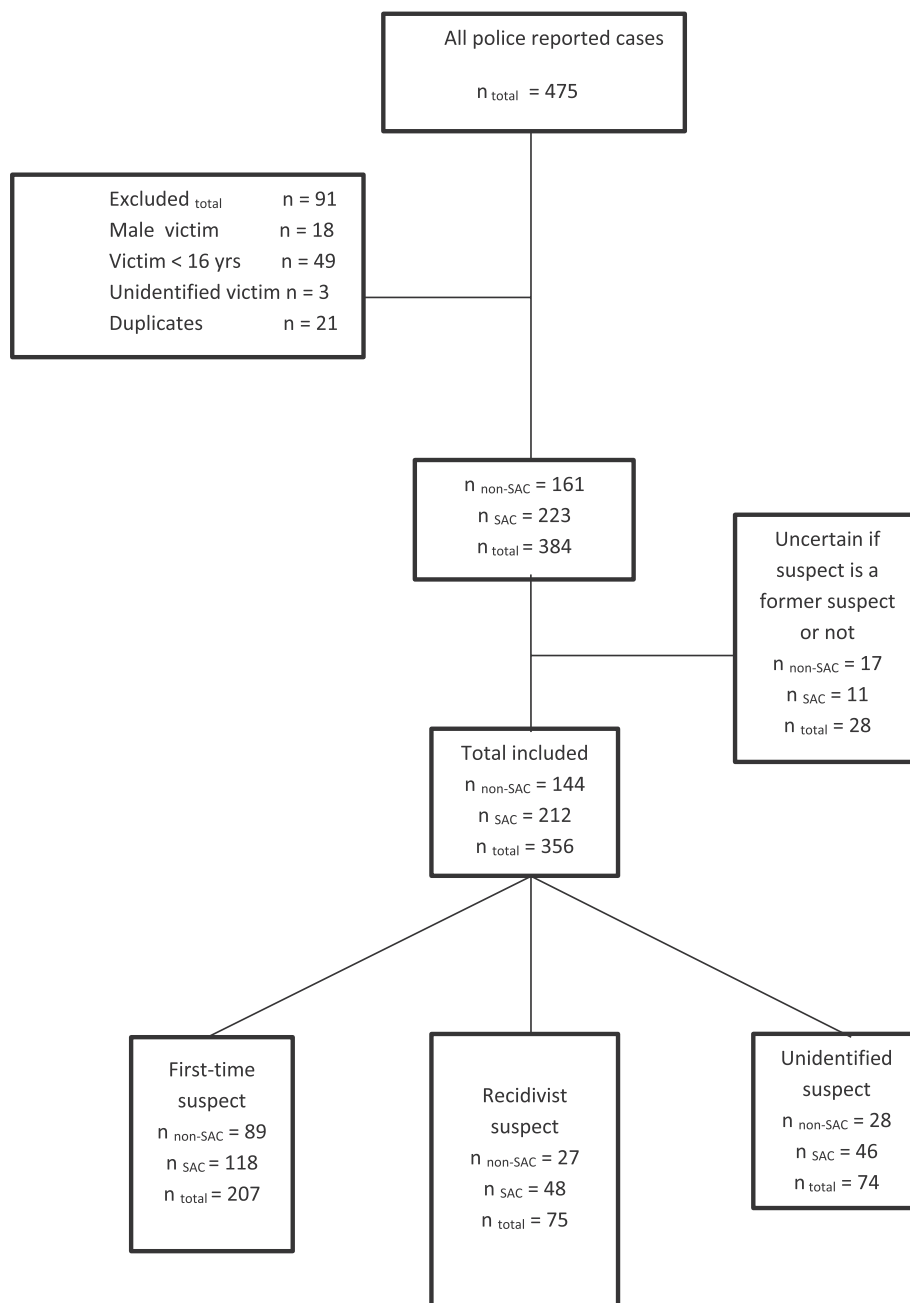


Fig. 1. Flow chart for included and excluded police-reported cases of rape and attempted rape in Sør-Trøndelag police district during the period 2003–2010. Police data are merged with data from the Trondheim SAC in corresponding cases of sexual assault.

authors emphasized that victims' threshold for reporting to the police was probably lower when the assailant's origin was non-European.¹³

Little is known about how the police prioritize in investigations of sexual assault cases. There is some evidence showing that preconceived attitudes in society towards sexual assault victims influence on how the police handle sex offences.³ Theories on rape myths were introduced in the 1970s to explain false beliefs about how and why women are sexually assaulted.¹⁴ Research has documented that law enforcement personnel endorse rape myths.^{15–17} Recent research has shown that rape myths are documented in official rape case records and suggests that this may influence investigative responses and perhaps predict case progression in a negative way.¹⁸ Preconceived attitudes are also described as existing towards sexual assault suspects. A British study showed that suspects who had a criminal record, especially as sex offenders, and those of non-white skin color, had an increased risk of

getting convicted.¹⁹ “The credible criminal” was the term used to describe these offenders and the findings were later supported by a Danish study.³ However, research in this area is limited. The first aim of this study was to describe and to compare the following three groups of suspects of rape or attempted rape in the Sør-Trøndelag Police District (STPD): 1) Suspects who were police-reported for the first time (referred to as first-time suspects), 2) Suspects who had one or more former episodes registered in the STPD files as a suspect of rape or other violent crime (referred to as recidivists), and 3) Unidentified suspects. The descriptions and comparisons of the suspect groups were based on victim-, assailant and assault characteristics, in police reported rapes and attempted rapes. A second aim was to describe differences in police investigations and prosecution rates of rape cases depending on the group of suspect/assailant involved.

2. Material and methods

2.1. Study design and settings

We conducted a retrospective descriptive study of police-reported rapes and attempted rapes of female victims ≥ 16 years of age in the Sør-Trøndelag Police District (STPD) in Norway between July 1, 2003 and December 31, 2010. The population of the area is approximately 280 000, including the city of Trondheim with about 160 000 inhabitants.²⁰ The only medical sexual assault center (SAC) in the district is located at St. Olavs Hospital in Trondheim. Data from police files were merged with corresponding medical information from the SAC when available. The SAC's service is described in detail elsewhere.²¹ The Institute of Forensic Medicine, Oslo University, carries out all forensic analyses of collected biological samples from sexual assault victims in Norway. The results from these analyses are kept in police files, and are usually unavailable for the SAC personnel.²²

2.2. Participants

All police-reported cases of rape and attempted rape of women ≥ 16 years of age, were identified. Cases were selected based on the former Norwegian Penal Code.²³ According to this law, Chapter 19, section 192, rape was defined as in the following abbreviated version: Penetration of penis/finger/foreign object in vagina/anus, penis in mouth, masturbation, and coercion by means of violence, threats, or during impaired consciousness.^{23,24} Four paragraphs under section 192 covered various distinctions of rape: Among the 320 suspects of rape included in this study, 306 were registered according to section 192, paragraphs 1 and 2 (rape), 9 suspects according to paragraph 3 (aggravated rape) and 5 suspects according to paragraph 4 (grossly negligent rape). Attempted rape, which was registered in 36 suspects in the study, is also punishable, but is covered by another paragraph in the Penal Code.

A total of 475 cases were police-reported during the period. Cases were excluded according to Fig. 1. Male victims ($n = 18$), those < 16 years of age ($n = 49$), unidentified victims ($n = 3$) and duplicate registrations ($n = 21$) were excluded. Additionally, some cases were excluded because of missing information regarding whether suspects were previously registered as suspects in police files or not ($n = 28$), leaving 356 cases eligible for the study. Among the 356 cases, we had corresponding medical information from the SAC in 212 cases (Tables 1 and 3 and Fig. 1).

2.3. Data collection and variables

Characteristics of suspects and victims were retrieved from police files, but in cases where SAC information was available and information in the police files was missing, victims' medical records were the source of information. We collected data on the following variables: Suspects' and victims' sociodemographics like age, origin (classified as Western if stated as Western Europe, North America or Oceania (Australia or New-Zealand), else classified as Non-Western), occupational status, and education. Age of unidentified suspects was based on victims' self-reporting. Furthermore, suspect-victim relationship was categorized into partner (current or previous partner/husband/boyfriend), family member or friend, casual contact (suspect known < 24 h) or stranger (suspect not previously known). Type of sexual acts involved anal, vaginal or oral penetration, or recorded as "no recollection/missing". Use of physical violence was graded as severe (presence of weapon/attempted strangulation/fracture or internal injuries), light/moderate (holding/punch/kick) or none/verbal threats. Location of assault/venue was categorized into private (woman's, assailant's or other person's residence) and public (any public indoor or outdoor location or a vehicle). Victim alcohol intake in relation to the assault was classified by three categories; "no intake", "intake of < 5 units of alcohol" and

Table 1

Suspect, victim, assault and investigative characteristics and by former suspects of sexual assault or other violent crime, 2003–2010.

Variable	Total N = 356 n(%)	First- time suspects N = 207 n (%)	Recidivists N = 75 n (%)	Unidentified suspects N = 74 n (%)	p-value
Suspect characteristics					
Origin					
Western	235 (66)	150 (73)	57 (76)	28 (38)	0.004 ^a
Non-western	98 (28)	55 (27)	17 (23)	26 (35)	
Missing	23 (7)	2 (1)	1 (1)	20 (27)	
Victim characteristics					
Age					
16–17 years	72 (20)	53 (26)	8 (11)	11 (15)	0.02 ^b
18–24 years	160 (45)	80 (39)	42 (56)	38 (52)	
≥ 25 years	123 (35)	73 (35)	25 (33)	25 (34)	
Missing	1 (0)	1 (1)	0 (0)	0 (0)	
Occupation					
Employed/ student	219 (62)	132 (64)	41 (55)	46 (62)	0.1 ^a
Unemployed	64 (18)	33 (16)	20 (27)	11 (15)	
Missing	73 (21)	42 (20)	14 (19)	17 (23)	
Victim alcohol intake					
No intake	103 (29)	65 (31)	25 (33)	13 (18)	0.007 ^b
< 5 units	67 (19)	36 (17)	8 (11)	23 (31)	
> 5 units	157 (44)	89 (43)	38 (51)	30 (41)	
Missing	29 (8)	17 (8)	4 (5)	8 (11)	
Assault characteristics					
Victim-suspect relationship					
Partner	57 (16)	38 (18)	19 (25)	0 (0)	$< 0.001^c$
Friend/family	134 (38)	97 (47)	29 (39)	8 (11)	
Casual contact	107 (30)	66 (32)	19 (25)	22 (30)	
Stranger	55 (15)	6 (3)	8 (11)	41 (55)	
Missing	3 (1)	0 (0)	0 (0)	3 (4)	
Penetration					
No penetration	70 (20)	31 (15)	17 (23)	22 (30)	0.006 ^a
Penetration by penis or foreign object	249 (70)	155 (75)	55 (73)	39 (53)	
Missing	37 (10)	21 (10)	3 (4)	13 (18)	
Physical violence					
None/verbal	45 (13)	32 (16)	10 (13)	3 (4)	0.01 ^b
Light/moderate	221 (62)	124 (60)	50 (67)	47 (64)	
Severe	44 (12)	17 (8)	12 (16)	15 (20)	
Missing	46 (13)	34 (16)	3 (4)	9 (12)	
Place of assault					
Private	235 (66)	157 (76)	56 (75)	22 (30)	$< 0.001^a$
Public	113 (32)	46 (22)	19 (25)	48 (65)	
Missing	8 (2)	4 (2)	0 (0)	4 (5)	
More than 1 suspect					
1 suspect	316 (89)	185 (89)	70 (93)	61 (82)	0.24 ^a
More than 1 suspect	38 (11)	22 (11)	5 (7)	11 (15)	
Missing	2 (1)	0 (0)	0 (0)	2 (3)	
Investigational data					
Other witnesses interrogated					
No	101 (28)	53 (26)	19 (25)	29 (39)	0.08 ^a
Yes	251 (71)	150 (73)	56 (75)	45 (61)	
Missing	4 (1)	4 (2)	0 (0)	0 (0)	
Police investigation of crime scene					
No	204 (57)	120 (58)	39 (52)	45 (61)	0.5 ^a
Yes	151 (42)	87 (42)	36 (48)	28 (38)	
Missing	1 (0)	0 (0)	0 (0)	1 (1)	

^a Chi square, $df = 2$.

^b Chi square, $df = 4$.

^c Chi square, $df = 6$.

"intake of ≥ 5 units of alcohol/heavily intoxicated". Suspect alcohol intake was dichotomized to "yes" or "no". In cases with more than one assailant, information regarding the presumably most active one was used. In cases with unidentified suspect, information given by the victim or other witnesses was used.

Table 2
Suspect and investigative characteristics, by identified former suspect of sexual assault or other violent crime, 2003–2010.

	Total N = 282 n (%)	First-time suspects N = 207 n (%)	Recidivists N = 75 n (%)	p-value
Suspect characteristics				
Age				
≤24 years	107 (38)	78 (38)	29 (39)	0.1 ^a
25–34 years	91 (32)	66 (32)	25 (33)	
≥35 years	84 (30)	63 (30)	21 (28)	
Occupation				
Employed/ student	181 (64)	136 (66)	45 (60)	0.004 ^b
Unemployed	42 (15)	21 (10)	21 (28)	
missing	59 (21)	50 (24)	9 (12)	
Education				
<13 years	88 (31)	62 (30)	26 (35)	1.0 ^b
University/ college	27 (10)	19 (9)	8 (11)	
Missing	167 (59)	126 (61)	41 (55)	
Self-reported alcohol intake				
No	81 (29)	53 (26)	28 (37)	0.09 ^b
Yes	164 (58)	124 (60)	40 (53)	
Missing	37 (13)	30 (15)	7 (9)	
Self-reported intake of other drugs than alcohol				
No	189 (67)	147 (71)	42 (56)	0.015 ^b
Yes	24 (9)	13 (6)	11 (15)	
Missing	69 (25)	47 (23)	22 (29)	
Investigational and legal data				
Suspect interrogated				
No	25 (9)	23 (11)	2 (3)	0.03 ^b
Yes	248 (88)	176 (85)	72 (96)	
Missing	9 (3)	8 (4)	1 (1)	
Suspect admits sexual contact				
No	76 (27)	60 (29)	16 (21)	0.09 ^b
Yes	166 (59)	113 (54)	53 (71)	
Missing	40 (14)	34 (16)	6 (8)	
Suspect DNA-profile taken				
No	150 (53)	111 (54)	39 (52)	0.27 ^b
yes	105 (37)	71 (34)	34 (45)	
missing	27 (10)	25 (12)	2 (3)	
Suspect arrested				
No	188 (67)	137 (66)	51 (68)	1.0 ^b
Yes	78 (28)	57 (28)	21 (28)	
Missing	16 (6)	13 (6)	3 (4)	
Prosecution				
Yes	32 (11)	19 (9)	13 (17)	0.06 ^c
Dismissal	239 (85)	179 (86)	60 (80)	
Missing	11 (4)	9 (4)	2 (3)	

^a Chi square, $df = 2$.

^b Chi square, $df = 1$.

^c Exact unconditional test.

For victims who had been at the SAC, medical records provided data regarding extragenital and anogenital injuries (the latter included tears, abrasions and bruises (ecchymoses/petecchiae), and reported redness or swelling was excluded),²⁵ collection of biological trace evidence and results of victims' toxicological analyses.

Police files provided data on investigational issues like interrogations performed and results from these, collection of medical information, including forensic and suspects' toxicological analyses, results from these, and legal outcome. Data from police- and medical records were merged and registered through a web-based data collection system developed and administered by the Unit of Applied Clinical Research at the Norwegian University of Science and Technology. In case of discrepancy between the two data sources information from the police files were preferred.

The study was approved by the Regional Committee for Medical and Health Research Ethics, the Norwegian Director General of Public Prosecutions and the Advisory Board on Secrecy and Research. The merging of data was also approved by the Norwegian Data Inspectorate.

Table 3
SAC medico-legal information, by former suspects of sexual assault or other violent crime. Data only from the Trondheim SAC 2003–2010.

Variable	Total N = 212 n (%)	First-time suspects N = 118 n (%)	Recidivists N = 48 n (%)	Unidentified suspects N = 46 n (%)	p-value
Victim medico-legal findings					
Bodily injury (extragenital)					
No	71 (34)	35 (30)	21 (44)	15 (33)	0.2 ^a
Yes	126 (59)	73 (62)	24 (50)	29 (63)	
Missing	15 (7)	10 (9)	3 (6)	2 (4)	
Anogenital injury					
No	140 (66)	80 (68)	34 (71)	26 (57)	0.5 ^a
Yes	53 (25)	28 (24)	11 (23)	14 (30)	
Missing	19 (9)	10 (9)	3 (6)	6 (13)	
Tox. samples from victim					
No	107 (51)	50 (42)	31 (65)	26 (57)	0.02 ^a
Yes	105 (50)	68 (58)	17 (35)	20 (44)	
Tox. results victim					
No tox. agents	31 (15)	22 (19)	7 (15)	2 (4)	0.08 ^a
≥1 tox. agent	74 (35)	46 (39)	10 (21)	18 (39)	
Time from assault to med. exam					
<24 h	154 (73)	83 (70)	33 (69)	38 (83)	0.2 ^a
≥24 h	57 (27)	34 (29)	15 (31)	8 (17)	
Missing	1 (1)	1 (1)	0 (0)	0 (0)	
Investigational and legal data					
Police requested forensic medical record from SAC					
No	39 (18)	20 (17)	11 (23)	8 (17)	0.9 ^a
Yes	103 (49)	57 (48)	24 (50)	22 (48)	
Missing	70 (33)	41 (35)	13 (27)	16 (35)	
Analysis of swabs and/or clothes collected from victim					
No/missing	115 (54)	70 (59)	31 (65)	14 (30)	0.001 ^a
Yes	97 (46)	48 (41)	17 (35)	32 (70)	

^a Chi square, $df = 2$.

2.4. Statistical analysis

We compared suspect-, victim- and assault characteristics, as well as police investigations between the three groups of suspects described above. For the comparisons, Pearson's chi-square and Exact unconditional tests were used as appropriate for the categorical variables, and ANOVA and student's *t*-test for the continuous variables (age). Statistical significance was assumed when $p < 0.05$. Missing data were calculated but excluded when statistical tests were performed. Data analyses were performed using IBM SPSS Statistics for Windows, version 22.0.

3. Results

3.1. Suspect characteristics (Tables 1 and 2)

Among the 356 cases included in the study, 207 were first-time suspects (58%), 75 were recidivists (21%) and 74 were unidentified (21%). The mean age of identified suspects (first-time suspects and recidivists) was 30.4 years (SD = 10.9), ranging from 16 to 84 years. The mean age of unidentified suspects, based on victims' self-reporting, was 29.5 years, ranging from 18 to 58 years. (SD = 8.2).

Among unidentified suspects 35% were reported as non-Western, whereas the corresponding percentages were 27% and 23% among first-time suspects and recidivists ($X^2 = 11.3$, $df = 2$, $p = 0.004$) (Table 1).

Among the identified suspects shown in Table 2 the unemployment rate among first-time suspects was 10%, versus 28% among recidivists ($X^2 = 11.1$, $df = 1$, $p = 0.004$). One third of the identified suspects had less than 13 years of education, regardless of suspects being first-time suspects or recidivists. However, information was often missing regarding suspect education in the police records. Suspect alcohol consumption prior to the assault was reported by 60% of the first-time

suspects and 53% of the recidivists ($X^2 = 2.8$, $df = 1$, $p = 0.09$). Use of other drugs than alcohol in relation to the assault was reported by 6% of the first-time suspects and 15% of the recidivists ($X^2 = 6.4$, $df = 1$, $p = 0.015$) (Table 2).

3.2. Victim characteristics (Table 1)

Table 1 also shows victim characteristics by suspect category. Mean age of the victims was 25.3 years ($SD = 9.6$), ranging from 16 to 72 years. There was an association between first-time suspects and victims in the youngest age category (16–17 years), whereas victims assaulted by recidivists were somewhat older ($X^2 = 12.0$, $df = 4$, $p = 0.02$). The victim was of non-Western origin in only 3% of the cases. Most of the victims were employed and/or students (62%). Victim unemployment was more prevalent in cases with a recidivist suspect than in cases with a first-time suspect (27% versus 16%) ($X^2 = 4.6$, $df = 2$, $p = 0.1$). In 63% of the cases the victims had consumed alcohol prior to the assault. Victim alcohol consumption was associated with unidentified suspect ($X^2 = 5.4$, $df = 4$, $p = 0.07$). Although the percentages of victims who reported having consumed alcohol prior to the assault were about the same in the two groups of identified suspects (first-time suspects and recidivist suspects), there was an association between victim being highly intoxicated by alcohol (consumed > 5 units) and recidivist suspect.

3.3. Assault characteristics (Table 1)

The different assault characteristics by suspect category are shown in Table 1. The victim knew the suspect in almost two thirds of the cases with identified suspect, regardless of whether the suspect was a first-time or a recidivist suspect. Being a first-time suspect was associated with cases where the victim was a casual contact (known < 24 h) while recidivist suspect was associated with partner rape. There was also a higher occurrence of stranger rapes among the group of recidivist suspects than among first-time suspects ($X^2 = 138$, $df = 6$, $p < 0.001$). Among the 74 unidentified suspects, 22 were classified as casual contact while 41 were strangers.

Among the identified suspects 210 (75%) were accused of a penetrative assault, whereas penetration was reported in only 39 (53%) of the unidentified suspects, ($X^2 = 10.2$, $df = 2$, $p = 0.006$). The victims of recidivists more often reported to be exposed to physical violence than victims of first-time suspects (83% versus 68%) ($X^2 = 12.6$, $df = 4$, $p = 0.01$). Unidentified suspect was associated with a public venue, while three of four assaults committed by identified suspects occurred in a private place ($X^2 = 52$, $df = 2$, $p < 0.001$).

3.4. Victim injury and laboratory findings (SAC information, Table 3)

SAC information by suspect category is shown in Table 3. Among those victims who had been examined at the SAC, extragenital injury was registered in 59%, while anogenital injury was disclosed in 25% of the victims. There was no significant association between injury and suspect category. Half of the victims who attended the SAC had a toxicological blood sample collected; in 58% of victims of first-time suspects, in 35% of victims of recidivists and in 44% of victims of unidentified suspect ($X^2 = 7.6$, $df = 2$, $p = 0.02$). Samples disclosed ≥ 1 toxicological agent in 39% of victims of first-time suspects, in 21% of victims of recidivists and in 39% of victims of unidentified suspects ($X^2 = 5.0$, $df = 2$, $p = 0.08$). Around 70% of the victims at the SAC were examined within 24 h after the assault when the suspect was identified, this in contrast to when the suspect was unidentified where 83% of the victims came within 24 h ($X^2 = 2.8$, $df = 2$, $p = 0.24$).

3.5. Investigational and legal data (Tables 1–3)

The police requested a forensic medical record from the SAC in half

of the cases in which victims had been medically examined, and there were no differences between the groups of suspects regarding that variable (Table 3). Analysis of swabs and/or clothes collected from victims was conducted in 46% of the cases; in 70% of cases with unidentified suspect, whereas only in 41% and 35% of first-time suspect cases and recidivist cases, respectively ($X^2 = 13.8$, $df = 2$, $p = 0.001$) (Table 3).

Nearly all victims were interrogated by the police, but in cases where suspect was identified, the police interrogated other witnesses than the victim more often than in cases where suspect was unidentified (75% vs. 61%) ($X^2 = 5.1$, $df = 2$, $p = 0.08$) (Table 1). Interrogations of suspects were conducted in a significantly higher proportion of recidivists than among first-time suspects (96 vs. 85%, $X^2 = 5.1$, $df = 1$, $p = 0.03$) (Table 2). Among recidivists, 71% admitted sexual contact with the victim, whereas 54% of the first-time suspects admitted sexual contact ($X^2 = 3.0$, $df = 1$, $p = 0.09$) (Table 2). Only 2% of the suspects admitted rape or culpability and there were no differences in the groups of suspects regarding these two variables.

A DNA profile of the suspect was secured during investigations in somewhat more of the recidivist cases than in the first-time suspect cases ($X^2 = 1.2$, $df = 1$, $p = 0.27$) (Table 2). In 42% of the cases the police investigated the venue (Table 1).

During investigations, 28% of the identified suspects were arrested regardless of group of suspects involved (Table 2). Prosecution happened in 32 cases and was associated with recidivist suspects, of which 17% of the cases were prosecuted in court, whereas only 9% of the first-time suspect cases were prosecuted (Exact unconditional test, $p = 0.06$) (Table 2). A medical doctor from the SAC was summoned as an expert witness in only five of the 32 cases.

4. Discussion

In this study of police reported rape suspects, 207 of 356 were first-time suspects (58%), 75 were recidivists (21%) of prior sexual or violent crime, and 74 were unidentified suspects (21%). We found that the mean age of identified suspects was 30.4 years. The mean age of unidentified suspects, which was based on self-reporting from victims, was 29.5 years. This corresponds with findings reported by the OPD, that the mean age of offenders has been approximately 30 years throughout the decade 2000–2010.¹³ The mean age of victims was 25.3 years. In a Danish study which also included merged data from police files and a SAC, victim mean age was 26 years.⁴

We found that first-time suspects reported higher alcohol intake prior to the assault compared to recidivists. Their corresponding victims were also often <18 years and an acquaintance. Being a first-time suspect was associated with victims reporting less physical violence than in cases of recidivists and unidentified suspects. These findings disclose a pattern of assault characteristics that are often seen in what the Norwegian police categorizes as *party-related rapes*. According to the OPD this category of rapes typically occurs when young people participate in parties or social events as part of the weekend night life, where alcohol, and often large amounts of it, is involved.¹³ Our finding of association between first-time suspect and high alcohol intake in suspect is consistent with the OPD report, which describes that the group of offenders involved in *party-related rapes*, often has no prior criminal record.¹³ In Norway, episodic heavy drinking is common and to a certain degree accepted in social settings, regardless of gender. Out of this we might consider that a possible consequence of this “Nordic pattern of drinking” could be the effect of disclaiming from responsibility of what happens under the influence of alcohol. Attitudes like these may contribute to trivializing the seriousness of sexual assaults happening in such settings, and maybe even partly explain why the police seem to put less investigational effort in first-time suspect cases compared with recidivist cases. Our findings of lower prosecution rates in this group compared to the recidivists is supported by a criminologist, describing that suspects who have a criminal record tend to get a

higher priority in criminal investigations than those who do not.²⁶ Hypothetically an explanation could be that police officers may experience more stress or discomfort when initiating full investigations of suspects who do not have a criminal record, compared with investigating men who are already registered as criminals. As mentioned earlier, there is research describing preconceived attitudes in society towards both victims and assailants of sexual offences, which can contribute to explaining how law enforcement prioritize when investigating sex crimes.^{3,19} Literature is, however, sparse on this topic and more research is needed.

We found that recidivist suspect was associated with suspect and victim unemployment, lower suspect education, and suspect reporting intake of other drugs than alcohol. Our findings indicate that both recidivists and their victims seem to represent relatively vulnerable populations in the society. Compared to first-time suspects, the recidivists more often were accused of partner rape and the use of physical violence. Many studies describe stranger rapes as the more violent category when compared to rapes committed by known assailants, but one study from a Swedish SAC showed that women assaulted by their intimate partners were even more exposed to physical violence than women assaulted by strangers and acquaintances.²⁷ One interesting finding in our study was that while 25% of the recidivist suspects were categorized as partners, 11% were reported as strangers, both categories far more common than among the first-time suspects. This is supported by a research group from Finland which showed that a considerable proportion of men who commit attack rapes are, or have been, in a steady intimate relationship for a long time.²⁸ Based on this a researcher has questioned whether it is likely that some cases of partner- and stranger rapes might have been committed by the same perpetrator.¹⁰ Based on our findings, we can even ask whether it is possible that some men who are in intimate relationships, occasionally attack not only their partner/spouse, but also other random women. Previous research has shown that crossover-offending is common among sex offenders, meaning that many admit to multiple victims and offences atypical of traditional criminal classification. This verifies that the theories of sex offender typologies are complex and have limitations.⁵

Our results show that the police have been somewhat more thorough in their investigational work regarding recidivist suspects than in cases of first-time suspects. Interrogations of suspects were more often done, a DNA-profile was more often secured, and the venue was more often investigated in the recidivist cases. Almost none of the suspects, regardless of group, admitted rape, but recidivist suspects more often admitted sexual contact with the victim, and recidivist cases also more often ended with prosecution. In most societies a small group of people commit a large proportion of the crimes, the so-called “acquaintances of the police”.²⁶ A Norwegian researcher has analyzed how law enforcement systematically follows and goes after citizens who habitually violate the law. She describes and justifies the police's close follow-up and sheds light on how priorities are made in crime investigations in general. In accordance with our findings, she explains why police investigations seem to be of higher quality in the cases of recidivist rape suspects compared with the two other groups of suspects. This phenomenon could also justify the higher prosecution rate in recidivist rape cases in our study. It is important to communicate this finding to the public for the purpose of helping victims of possible recidivist sexual assailants realize that police reporting has a relatively larger potential of bringing their assailants to court. More research is needed to confirm our findings regarding various degrees of police investigational efforts in separate groups of sexual assailants. As expected, most of the suspects registered as unidentified were either a stranger to the victim or a casual contact (known < 24 h). Cases with unidentified suspect was associated with non-Western suspect, high victim alcohol consumption prior to assault, a public venue. This category of rapes draws a picture of relatively dramatic and frightening assaults. Previous research has concluded that sexual assault against young women who are too

intoxicated to resist, due to heavy episodic drinking, is a prevalent problem in Norway.²⁹ Although most victims in the total sample reported alcohol intake prior to the assault (63%), there was a significant association between unidentified suspect and victim alcohol consumption (71%). It seems that unidentified assailants are exploiting women who are incapacitated by alcohol. A study from the U.S. about unidentified sexual assailants supports our findings, describing that exploitation of the victim's intoxication is a commonly used means of coercion.³⁰ The association between unidentified suspect and the use of physical violence was extracted not only from victim interrogations, but also supported from SAC medical data, disclosing high percentages of both extragenital and anogenital injury.

Victims of unidentified suspects also tended to seek help at the SAC relatively shortly after the incidence, which may be explained through the physically and psychologically traumatizing nature of these assaults. It can also partly be explained through a British study showing that the threshold for seeking help and police-reporting a rape is lower when the suspect is a stranger to the victim.³¹ Analysis of swabs and/or clothes collected from the victim was done significantly more often in cases where suspect was unidentified than in cases of identified suspects, which also presumably has to do with the higher percentage of these victims being medically examined within 24 h after the rape incident. Despite these analyses we ended up with a rather large group of unidentified suspects. However, the collected and stored DNA from unidentified males could be valuable evidence in future investigations. The unidentified suspects were also more often suspected of *attempt of rape* rather than *rape*, and penetration was less often reported, which is consistent with previous research concluding that stranger rapists seldom manage to complete the rape with penetration and ejaculation.¹²

We found an association between unidentified suspect and non-Western suspect. The OPD has showed an increasing occurrence of suspects of non-Norwegian/non-European origin in the period 2000–2010.¹³ Correspondingly, men of non-European origin committed most of the so-called attack rapes, in which the assailant was unidentified. The numbers were, however, too small to constitute statistically significant results on that matter.¹³ There is little research on how or why a foreign descent or a background from a different culture is connected to rape, and explanations to this could to our knowledge only be based on speculation.¹² We can, however, assume that persons who originate from foreign countries may have a more difficult social situation in Norway than ethnic Norwegians. Rapes reported to the police probably only account for 10% of the total amount of sexual coercions happening in the society.³² The OPD claims that dark-skinned Norwegians could wrongly be classified by the victim of attack rape as non-Western, and Non-Western men are more likely to be police-reported than rapists of Norwegian/Western origin.^{12,13} The OPD report underlines that the emphasis on rapists of non-Norwegian/non-European origin results from a strong focus on this topic in the media in recent years.¹³ It is important that future research aims at looking behind the surface of the immigrant over-representation of sexual offenders, in search for nuanced and diverse explanations, which can contribute to diminish rather than increase stereotypical misconceptions.

4.1. Limitations

A limitation of the study is that data were collected retrospectively and partly by self-reporting. It is likely that some information about for example threats or physical violence has been lost as amnesia due to intoxication and/or psychological stress is common among rape victims. Unfortunately, for some of the variables from both data sources, there is a considerable amount of missing information. The information regarding police investigations are limited in this study, us not being allowed to look into police logs or notes, only to the official police records (BL). Especially disappointing was that education and employment data of identified suspects were not available in the records.

This could have given us a better picture of the suspects.

Our data represent only one of the 27 police districts in Norway, which limits the national generalizability of the findings. There is no reason to believe that the suspect pool in rape and attempted rape looks very different in the 27 police districts. For some of the variables, however, for example the representation of suspects with a non-Western origin, differences could be expected between urban and rural populations. In our study only 21% were recidivists, this in contrast to what has been found in a Danish study which reported up to two thirds.³ This could partly be explained by us only being allowed to collect criminal register data from the STPD, and did not have access to the national register of accused offending. Estimates of recidivism rates is complicated partly due to the problem of under-reporting, and the U.S. Department of Justice concluded in 2015 that there is universal agreement in the scientific community that the observed recidivism rates of sex offenders are underestimates of actual reoffending.⁵ This indicates that the percentage of recidivists among the reported suspects in our study may also be too low. It is reasonable to believe that many cases of first-time assailants are not reported to the police.

The analyses regarding police investigations are limited in this study, and some of our statements may be interpreted as discredit towards law enforcement and their investigational approach in cases of sexual assault. We are aware that judicial and investigational processes are extremely complex and demanding in this field, and that priorities made by the police are often a question of finances.

Finally, like most research regarding rape, this study lacks suspect information from all the cases that are never reported. Unreported adult male rapists constitute a large population and we have no knowledge on how they differ from assailants who are reported. Strengths of the study are the large number of variables, the long observation period of 7½ years and a relatively large sample. The merging of data from police files and corresponding SAC records is unique by enriching the variety of data available, especially regarding victim sociodemographic data, injuries and biological trace evidence. It also provides important insight in the impact of forensic evidence collected at a SAC, on the investigation of sexual assault cases.

4.2. Conclusions

Comparing separate groups of sexual assault suspects based on assault characteristics, has disclosed some obvious patterns of differences between the groups, which can provide valuable information for future prevention programs, police investigation strategies, health care guidelines and for new research projects. The recidivist suspects appear to represent a generally more vulnerable group than the first-time suspects, in our detection of a high unemployment rate and a possible drug abuse problem. The police seem to be more thorough in their investigations of recidivist suspects than in the other two groups of suspects, and recidivist suspect cases more often end with prosecution. This seems unfair, considering that the others may be just as guilty. The low reporting rates of sexual assault imply that most assaults go unrecorded. It is important to report sexual assault to the police and to health care. When more of these crimes are publicly reported, more cases will possibly be taken to court if investigated thoroughly. This will send a clear message to victims that reporting leads to more prosecution and conviction. It will also send a message to potential assailants, that rape is taken seriously, and that the risk of getting caught is increasing.

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References

1. Offences investigated. *Social Conditions, Welfare and Crime*. 2014; 2014. Oslo: Statistics Norway; 2016 cited 2017 December. Available from: <https://www.ssb.no/en/soziale-forhold-og-kriminalitet/statistikker/lovbrudde/aar/2015-10-29?pane=tabell&sort=nummer&tabell=242571>.
2. Kripes. *Taktisk Etterforskningsavdeling [Central Unit for Norwegian Police Investigation] Voldteksttsituasjonen I Norge 2015 [Sexual Assault in Norway, a Report on the Situation 2016]*; 2016 2015.
3. Nielsen LH, Hansen M, Bramsen RH, Hansen OI. Rape suspects: predicting charges and convictions in Danish rape cases. A Coordinated Community Response to Rape and Sexual Assault (PhD thesis). *Department of psychology, Faculty of Health Sciences, University of Southern Denmark*. 2018; 2018:129–156.
4. Ingemann-Hansen O, Brink O, Sabroe S, Sorensen V, Charles AV. Legal aspects of sexual violence-Does forensic evidence make a difference? *Forensic Sci Int*. 2008;180(2-3):98–104.
5. U.S. Department of Justice Office of Justice Programs. *Sex Offender Management Assessment and Planning Initiative (SOMAPI)*. Ch. 3: *Sex Offender Typologies*, Ch. 5: *Adult Sex Offender Recidivism*, Ch. 6: *Sex Offender Risk Assessment*. 2015; 2015.
6. Hanson RK, Morton-Bourgon KE. The accuracy of recidivism risk assessments for sexual offenders: a meta-analysis of 118 prediction studies. *Psychol Assess*. 2009;21(1):1–21.
7. Lussier P, Blokland A. A developmental life-course perspective of juvenile and adult sexual offending. In: Sanders T, ed. *The Oxford Handbook of Sex Offences and Sex Offenders*. Oxford University Press; 2017:241–269.
8. Maletzky BM. Sexual assault. In: Van Hasselt VB, Hersen M, eds. *Aggression and Violence. An Introductory Text*. Boston: Allyn and Bacon; 2000.
9. Miethe TD, Olson J, Mitchell O. Specialization and persistence in the arrest histories of sex offenders. *J Res Crime Delinquen*. 2006;43(3):204–229.
10. Kruse AE, Strandmoen JF, Skjorten K. *Menn Som Har Begått Voldtekt - En Kunnskapstatus [Men Who Have Committed Rape] NKVTS Rapport 1 2013*; 2013 ([Report by Norwegian Competence Services on Violence and Traumatic Stress]).
11. Lussier P, Proulx J, LeBlanc M. Criminal propensity, deviant sexual interests and criminal activity of sexual aggressors against women: a comparison of models. *Criminology*. 2005;43:247–279.
12. Mjøs K. *Er Det Noe Som Kjennetegner Voldtektsforbrytere? [Is There Anything Which Characterizes Rapists?]* Master thesis from Norwegian University of Science and Technology 2011; 2011
13. Sætre M, Grytdal V. *Voldtekt I Den Globale Byen - Endringer I Anmeldte Voldtekter Og Seksualkultur I Oslo [Rape in the Global City - Changes in Police-Reported Rape and the Culture of Sexual Behaviour in Oslo]*. 2011; 2011 Oslo Politidistrikt [Oslo Police District].
14. Edwards KM, Turchik JA, Dardis CM, Reynolds N, Gidycz CA. Rape myths: history, individual and institutional-level presence, and implications for change. *Sex Roles*. 2011;65(11-12):761–773.
15. Smith M, Wilkes N, Bouffard LA. Rape myth adherence among campus law enforcement officers. *Crim Justice Behav*. 2016;43(4):539–556.
16. Maddox L, Lee D, Barker C. The impact of psychological consequences of rape on rape case attrition: the police perspective. *J Police Crim Psychol*. 2012;27(1):33–34.
17. Campbell R, Johnson CR. Police officers' perceptions of rape - is there consistency between state law and individual beliefs? *J Interpers Violence*. 1997;12(2):255–274.
18. Shaw J, Campbell R, Cain D, Feeney H. Beyond surveys and scales: how rape myths manifest in sexual assault police records. *Psychol Violence*. 2017;7(4):602–614.
19. Hohl K, Stanko EA. Complaints of rape and the criminal justice system: fresh evidence on the attrition problem in England and Wales. *Eur J Criminol*. 2015;12(3):324–341.
20. *Statistisk Sentralbyrå [Statistics Norway]*. 2010; 2010. cited 2018 May. Available from: <https://www.ssb.no/folketall>.
21. Hagemann CT, Stene LE, Myhre AK, Ormstad K, Schei B. Impact of medico-legal findings on charge filing in cases of rape in adult women. *Acta Obstet Gynecol Scand*. 2011;90(11):1218–1224.
22. Stene LE, Ormstad K, Schei B. Implementation of medical examination and forensic analyses in the investigation of sexual assaults against adult women: a retrospective study of police files and medical journals. *Forensic Sci Int*. 2010;199(1-3):79–84.
23. *The General Civil Penal Code (Ch. 19, P. 76-82) Oslo Norwegian Ministry of Justice*. 2006; 2006. Available from: <http://www.ub.uio.no/ujur/ulovdata/lov-19020522-010-eng.pdf>.
24. Nesvold H, Ormstad K, Friis S. To be used or not to be used, that is the question: legal use of forensic and clinical information collected in a self-referral sexual assault centre. *J Forensic Sci*. 2011;56(5):1156–1162.
25. McGregor MJ, Du Mont J, Myhr TL. Sexual assault forensic medical examination: is evidence related to successful prosecution? *Ann Emerg Med*. 2002;39(6):639–647.
26. Finstad L. *Politiplikket [From a Law Enforcement Viewpoint]*. third ed. 2013; 2013 Oslo, Norway.
27. Moller AS, Backstrom T, Sondergaard HP, Helstrom L. Patterns of injury and reported violence depending on relationship to assailant in female Swedish sexual assault victims. *J Interpers Violence*. 2012;27(16):3131–3148.

28. Hakkanen H, Puolakka P, Santtila P. Crime scene actions and offender characteristics in arsons. *Leg Criminol Psychol*. 2004;9:197–214.
29. Pape H. Sexual assault while too intoxicated to resist: a general population study of Norwegian teenage girls. *BMC Public Health*. 2014;14:406.
30. McWhorter SK, Stander VA, Merrill LL, Thomsen CJ, Milner JS. Reports of rape re-perpetration by newly enlisted male navy personnel. *Violence Vict*. 2009;24(2):204–218.
31. Woods L, Porter L. Examining the relationship between sexual offenders and their victims: interpersonal differences between stranger and non-stranger sexual offences. *J Sex Aggress*. 2008;14(1):61–75.
32. Justisdepartementet [The Norwegian Ministry of Justice]. *Fra Ord Til Handling - Bekjempelse Av Voldtekt Krever Handling [Prevention of Rape Requires Action]*. Oslo, Norway. 2008; 2008 (Author).