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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

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ABSTRACT

Objective: To describe the implementation of medical examination and forensic analysis in the police investigation of sexual assaults, and compare police-reported cases with and without medico-legal examination of the victim.
Methods: A retrospective study of all police-reported sexual assaults against women in the county of Sør-Trøndelag, Norway, January 1997–June 2003. Information from the police files was merged with information from the only specialized health care system in the region, the Sexual Assault Care Centre (SACC), St. Olav's Hospital, Trondheim.
Results: Of the 185 police-reported cases identified, 101 (55%) involved women examined at the SACC. A medical report was requested in 83% of the latter, while forensic analyses of biological samples from the victim's body were performed in a mere 29%. In cases without examination at the SACC, there was more likely assault outside the city, over one week's delay between the assault and police-reporting, over one assault reported, and assault coded as attempted rape, while vaginal penetration was less likely. Adjusting for delay of reporting, geographical closeness to health care remained predictive of medical examination. Only 16% of the cases were prosecuted.
Conclusion: The police requested a medical report in most cases where the victim had undergone examination, while a minority of collected biological samples was analyzed. Consequently, a vigilant and thorough documentation of mental state, physical injuries and history of assault should be emphasized.

1. Introduction

Sexual assault may exert a negative impact on physical and mental health as well as reproductive function [1]. The victim needs immediate medical attention regarding putative physical genital and extra-genital injuries, prophylaxis against sexually transmissible infections and eventually, post-coital contraception [2]. Clinical forensic examination includes systematic documentation of physical injuries and sampling of biological evidence for legal purposes. The examination should be performed as soon as possible after the assault to avoid loss of important trace evidence [3,4].

A sexual assault care centre (SACC) was established in 1989 at the Department of Women's Health, St. Olav's Hospital, Trondheim. It covers the whole region, and offers a 24-h service acute gynaecological treatment to females aged ≥ 16 years. Patients are also offered a clinical forensic examination irrespective of prior police reporting. Samples regarding biological trace evidence are not analyzed within the health care system. If and when a formal complaint is filed the police will decide whether analyses, e.g. sperm identification or DNA analysis, should be requested. In Norway, The Institute of Forensic Medicine, Oslo University, handles all trace evidence samples recovered from the victim's body, and from other possible sources such as bed-linen, towels, underwear, etc. Results are kept in the police files and not routinely disclosed to the medical system. Thus, the fate of collected trace evidence is largely unknown to the SACC.

In April 2000 the Director General of Public Prosecutions presented a report focusing on police's and prosecutors' handling of sexual assault cases in Norway [5]. According to this report, 80% of cases investigated in 1998 were dismissed—a trend increasing

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since 1990. The low fraction of cases taken to court earned Norway a critical comment from UN's Convention on the Elimination of All Kinds of Discrimination against Women [6]. To improve the legal rights of female sexual abuse victims, measures such as improved documentation of physical findings and recovery of trace evidence have been suggested. To establish well-equipped facilities and secure staff a proper education in clinical forensic medicine represents a challenge to health care authorities and these are prerequisites to optimal reception, care-giving, injury documentation and interpretation as well as securing trace evidence for laboratory analysis [7,8].

Police are advised to refer victims of sexual assault to specialized health care for documentation of injuries and sampling of biological trace evidence, but little is known about the actual implementation of medical examinations and forensic analyses in the investigation. This study aimed to examine the utilization of medical information derived from examinations and forensic analyses of trace evidence in police-reported cases of sexual assault on women. Description and comparison of cases seen versus those not seen at the SACC were particularly emphasized.

2. Material and methods

The overall design of the study was to retrospectively merge information from medical and police records. The Norwegian county of Sør-Trøndelag has a population of 270,000, and almost 160,000 live in the county capital Trondheim [9]. All cases of sexual assault on women reported to police authorities in the county during the period 01.01.1997–20.06.2003 were identified and included. Cases pertaining to males and to girls < 16 years old were excluded. In accordance with recommendations from the police, the following specific crime denominations were included, as defined by The Norwegian Penal Code:

- attempted rape.
- rape (§192).
- indecent assault on an unconscious subject.
- indecent assault by means of threats/devious behaviour.
- indecent conduct/exploitation facilitated by superior position.

According to The Norwegian Penal Code (§192), a rape is defined as engagement in sexual activity by means of violence or threats, or with somebody who is unconscious or incapable for any other reason of resisting the act, or by means of violence or threats compels somebody to engage in sexual activity with another person, or to carry out similar acts with himself or herself [10]. In our study the reported incident was dichotomized into attempted rape versus rape; the latter category comprised all above-mentioned crime denominations except from attempted rape.

Data on the reported incident, police precinct, socio-demographic characteristics of the victims, medical examinations performed and observations documented, forensic and toxicological analyses, and legal outcome were retrieved from police files. All information collected was manually registered in a form designed for computer analysis and fed into a data program for storage and calculations. Unique keys were subsequently used to link data from the police files with a separate research file containing data from all referrals to the SACC since 1989 until the end of the study period.

Data on genital and extra-genital injuries, use of physical violence, types of sexual acts, characteristics of the venue, victims' age, residence, employment status, particular vulnerability, intake of alcohol/drugs and relationship to the assailant were retrieved from the patient records of those who had been seen at the SACC. In the remaining cases, corresponding data were collected from police files.

Legal resolution was classified in accordance with the Norwegian Administration of Justice Act and regrouped in four categories: Prosecution, no suspect identified, dismissal, and no crime committed/complaint retracted. Dismissal comprises four coded categories: statute-barring (too long an interval from incident to formal report), insufficient evidence, suspect deceased, or suspect not legally responsible. If more than one legal resolution was stated, the reasons were recorded in the above-mentioned sequence of priority.

The concept of "vulnerability factors" was introduced in the description/classification of victims' background. A victim was considered vulnerable if at least one of the following features applied to her: Mental or physical retardation, previous sexual victimization, previous psychiatric illness, or drug abuse.

Venues such as the victim's or the assailant's home, or another private indoor location were classified as "private". Assaults committed outdoors, in a car, boat or other vehicle, or in a public place, were classified as having taken place in a "public" environment.

Physical violence was classified as follows: None/verbal threats only, mild to moderate violence, gross violence, and no information. Gross violence comprised use of weapons, mugging/strangulation, and infliction of fractures, internal haemorrhages, etc., whereas minor/moderate violence denotes hitting, slapping or restraining of the victim during assault. Cases involving more than one kind of violence were classified according to the most serious degree.

Types of sexual acts were classified as vaginal, anal or oral penetration, other, and unsure/no description. "Other" includes cases where the victim was forced to fellate or masturbate the assailant, attempts at penetration, pawing/touching up, other sexual acts or no sexual act. The category "unsure/no description" denotes cases where no definite description of an assault is given, e.g. if the victim was heavily inebriated or for other reasons unconscious, and cases where police and patient records contain no such information. If more than one kind of sexual act were described, the answers were recorded in the priority given above.

Information as to whether one or more assaults had been perpetrated was taken from police records. Thus, if the victim told about two or more incidents at the SACC, but only mentioned one to the police, the case was registered as a solitary assault.

Victim/assailant relationships were classified in four groups: Current/ex-partner, acquainted, casually acquainted, and stranger. "Partner" includes present or ex-husband/fiancé/common law spouse and boyfriend. "Acquainted" means that the victim had known the assailant for more than 24 h; a "casual acquaintance" was known to the victim for less than 24 h, whereas "stranger" means virtually unknown to the victim.

In four cases the number of assailants was stated differently to the police and at the SACC. This being a study of police-reported assaults, the numbers retrieved from the police reports were used.

Registration of genital injury was limited to objectively observable findings—i.e. scratches, fissures, swellings and redness. Subjectively described pain/tenderness, trace material without visible surrounding reaction, or observed fluorescence under UV-light (Wood's lamp) were omitted.

Information from police records and SACC were analyzed with the SPSS version 13. Statistical significance was tested according to the Pearson Phi-Square test or Fisher's Exact Test ($p < 0.05$). Adjustments of interval from assault to police reporting were conducted with multivariate analysis.

The present study was approved by the Norwegian Director General of Public Prosecutions (Advisory Board on Secrecy and Research), The Norwegian Data Inspectorate, and the Regional Committee on Research Ethics.

3. Results

In total, 185 cases of sexual assault reported to the Sør-Trøndelag police were included, whereof 101 (55%) had a medical record at the SACC at St. Olav's Hospital, Trondheim. The series comprised 222 cases initially—106 with and 116 without a patient record at the SACC. Five cases seen at the SACC were excluded because of age. Among those registered with the police, but not at the SACC, 32 cases were excluded, i.e. 8 male victims, 23 girls < 16, and one case featuring an unidentified victim.

Fig. 1 shows the annual number of police-reported cases, number of reporting subjects seen at the SACC and the total number of cases taken to court. Table 1 displays the legal resolution. The prosecuting authority instituted a prosecution in 16% of the cases. A slightly higher fraction among those seen at the

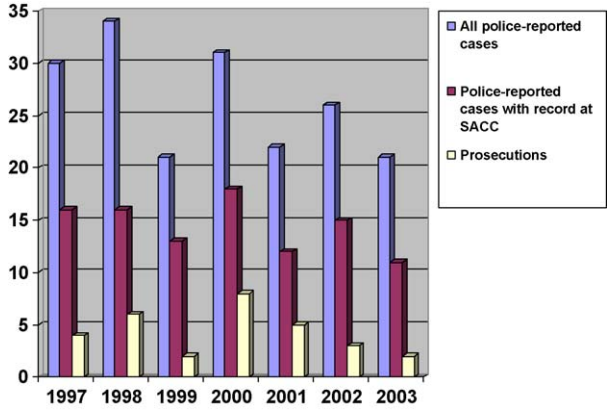

Fig. 1. Annual number of sexual assaults on adult women reported to the police in Sør-Trøndelag County, number of victims seen at the Sexual Assault Center, St Olav's Hospital and number of prosecutions during the study period (January 1, 1997–June 2, 2003). In 2003, cases were only recorded until June 2, thus the total number of cases that year would be higher.