

Clothing Damage Analysis and the Phenomenon of the False Sexual Assault*

REFERENCE: Taupin JM. Clothing damage analysis and the phenomenon of the false sexual assault. *J Forensic Sci* 2000;45(3):568–572.

ABSTRACT: This paper describes three recent false sexual assaults examined at the Victoria Forensic Science Centre laboratory where clothing damage analysis assisted in the resolution of the case. Suspected false reports of sexual assaults are often sensitive cases with little other forensic evidence. Any evidential value that can be obtained is thus valuable in order to minimize any ordeal to the complainant and any suspect and to conserve valuable resources. The findings illustrate the application of clothing damage analysis in a cross section of confirmed false sexual assault reports and the fact that the forensic examiner should be aware of the potential evidential value of this kind of analysis. Furthermore, the corroboration of a victim's scenario when the investigator has doubts may be no less valuable as it may minimize the adversarial ordeal that is often faced by a rape victim.

KEYWORDS: forensic science, criminalistics, damage, clothing, sexual assault, false reports

Damage to textiles, most often clothing, may offer valuable evidence in serious crimes of violence such as homicide and rape and forms a significant part of biology casework in Victoria (1). Characteristics of the damage may provide information as to the possible implement which caused the damage, the manner in which it was caused and whether it was "recent." Damage analysis may corroborate or disprove a particular crime scenario (2).

False criminal reports are a relatively common reality in law enforcement. It is well known that victims frequently exaggerate the value of items taken in burglaries, and robberies are occasionally reported to explain the absence of money and other valuables to the victim's family (3). A proportion of alleged sexual offenses are also fictitious (4). False allegations are widely believed to be a common occurrence in cases of sexual assault. However, there has been little careful research into this problem (5). False allegations of rape are occasionally unrecognized by investigators and until recently were almost totally neglected in the literature. It has been stated that the most difficult area of sexual offense investigation is identifying the false complainant; in addition, the reasons for such allegations are not well understood (6). Although the incidences of false reports of rape and assault are less than theft or burglaries, the consequences may be more serious. Apart from the problem it may

create for legitimate victims, a false allegation—especially when it is based on malice—can result in a grievous injustice to the accused when there is one nominated. In addition, the wastage of police, forensic and judicial resources may be high.

The corroboration of a legitimate victim's story may be no less important. The sexual assault victim is handicapped by widely held stereotyped beliefs about sexual assault which do not affect victims of armed robbery or burglary (5). Their previous sexual history is further explored by investigators and the courts.

Any evidential value that can be obtained is thus highly desirable in these cases. On occasions complainants will present with self-inflicted injuries to substantiate false allegations of assault (7). Injuries to the complainant may be inconsistent with any damage to their clothing. It is well known that self-inflicted injuries may often present a pattern, such as avoiding sensitive tissues or hesitation marks (3). Damage to the clothing may be more extreme, such as extensive slashing or stabs through multiple layers.

Approximately one-quarter of damage analysis cases in Victoria involve a suspected false report by the investigator, or one where the investigator has concerns. Clothing damage analysis has assisted in preventing unnecessary prolonged investigations, or removing doubts as to the complainant's story. This paper describes three recent cases examined at this laboratory which illustrate a cross section of identified false reports of sexual assault and how clothing damage analysis assisted in the resolution of the case.

Methods

It is important to obtain as much information concerning the alleged scenario as possible before any examination. Statements from complainants and any medical reports were obtained. Clothing from complainants were brought into the laboratory for examination. No ejaculation or blood shed from the "offender" was alleged in any of the cases so no intimate medical samples were necessary. Apart from the medical and clothing examination, there was no other forensic examination.

Garments from the complainants were first examined macroscopically at the fabric level, with the naked eye and a WILD M650 stereomicroscope at low magnification. Any forensically important evidence was noted, such as the presence or absence of blood staining. The presence or absence of any damage was recorded together with its location and the garments were photographed as well as drawn. The fabric composition and construction were noted as well as the degree of "wear and tear."

Any damage was examined microscopically at the yarn and fiber level. Simulation experiments (8) on undamaged areas of the garments were performed in order to simulate as far as practica-

¹ Forensic Scientist, Victoria Forensic Science Centre, Victoria Police, Forensic Drive, Macleod, Victoria 3085 Australia.

* Parts of this study were originally presented at the 14th Australian and New Zealand International Symposium on the Forensic Sciences, Adelaide, Australia, October 1998.

Received 25 Jan. 1999; accepted 16 July 1999.

ble the proposed scenario. The resulting simulation damage was then compared macroscopically and microscopically to the "evidence" damage.

Case Reports

Case 1—Attention Seeking

A 21-year-old Melbourne woman claimed that she was assaulted by an unknown male at night in her backyard. He had allegedly grabbed her T-shirt at the front of her neck and with his other hand ripped the T-shirt open. He then left the premises. There was no medical report due to the absence of injuries. On examination the T-shirt was a machined cotton plain knit with a ribbed crew neck. There was a combination cut/tear in the front of the garment which commenced from the left side of the collar and terminated in approximately the center front (Fig. 1). There were two distinct changes of direction in the severance so that the profile was approximately "Z"-shaped. The absence of distortion in the fabric, the few torn yarn ends, and the presence of cutting features excluded the provided scenario as the origin of the severance. Simulation experiments on a purchased T-shirt similar in construction to the "evidence" garment showed that to manually tear the garment as in the provided scenario was not feasible. Features of the severance, such as scissor cut "stoppages," indicated that a pair of moderately blunt scissors was the origin.

The damage analysis confirmed the investigator's suspicions of a false report. On being confronted with the forensic report and the inconsistencies in her statement, she pleaded guilty to the charge of False Report to Police. She had claimed she was sexually assaulted

to seek attention from her boyfriend with whom she had recently had an argument.

Case 2—Attention Seeking—Personality Disorder

Between September 1995 and February 1996 a 25-year-old Victorian lawyer alleged two counts of rape, two counts of criminal damage by fire and four counts of burglary by person(s) unknown. The two counts of rape involved clothing damage analysis. In the first incident she alleged she was assaulted late at night in a car park by an unknown male armed with a knife. After attacking her he departed, dropping the knife which she then picked up. She received only superficial injuries. Her clothing and the knife were submitted for examination. There were stab and slash cuts to the left side of a woven blouse and woven skirt. The absence of blood to the clothing indicated that the damage occurred while the clothing was pulled away from the body. Simulation experiments with the provided knife produced stab and slash cuts similar in macroscopic and microscopic characteristics to the original damage; the knife was thus included as the possible weapon. The evidence only partially accorded with her provided scenario; instead it showed the possibility of self-infliction.

During the second incident she alleged she was struck to her head late at night by an unknown male intruder in her backyard. He threatened her with her own knife before thrusting it into her vagina, through her "boxer" pajama shorts, more than once. There was an absence of genital injuries which was inconsistent with her allegations. Her pajamas and the knife were submitted for examination. The "shorts" were composed of a patterned weave of synthetic fibers. There was an irregular cut and angled stab-type cut in the center crotch area of the shorts (Fig. 2); no blood staining was detected. The alleged scenario depicted the offender squatting behind the complainant, who was also squatting, before thrusting the knife into the crotch area. Simulation experiments of the alleged scenario produced only slash-type cuts or punctures. Other experiments whereby the material was held away from the body under tension and controlled stab-type actions using the knife, not penetrating through to the body, accorded with the "evidence" damage. The medical and clothing damage evidence and inconsistencies in her statements convinced the police to charge her with two counts of false report of rape. They also charged her with seven other counts of false report, one of arson and one of fraudulently obtaining a Crimes Compensation benefit. She was found guilty on all charges and ordered to reimburse police \$113,000 spent investigating the false reports.

Case 3—Financial Gain

A 55-year-old Melbourne woman claimed she had been raped by an unknown male while walking through bushland. She said he hit her on the face with a rock and held a knife, which she did not see, to her neck. He grabbed her top and ripped it open horizontally, ripped her brassiere with the knife, and then used both hands to rip the fly of the jeans open. He then inserted an object into her vagina, which he then removed. A subsequent medical examination of the woman showed superficial facial and upper body injuries and an oily deposit was collected from her vagina. There was no other biological evidence and the clothing was brought into the laboratory for examination.

The top was a long-sleeved plain knit and had three areas of damage across the front, consisting of combination cut/tears with adjacent cut out sections (Fig. 3); the ribbed neckband was cut through. The centerpiece joining the two cups of the brassiere was



FIG. 1—Cut/tear in front of T-shirt of Case 1.

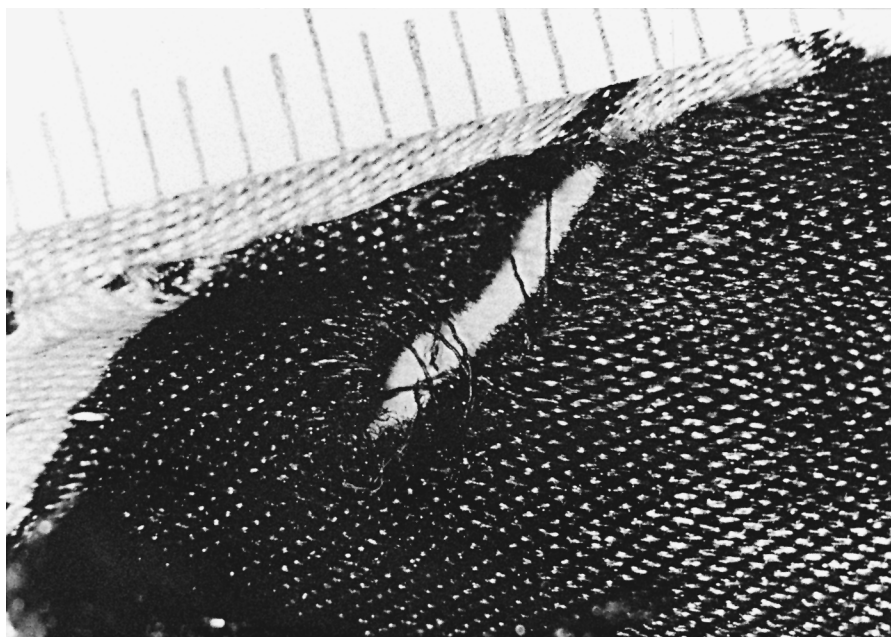


FIG. 2—Stab-cut in center crotch area of pajama shorts of Case 2. One unit on scale corresponds to one millimeter.

severed (Fig. 4). The presence of scissor cut “stoppages,” caused by the opening and closing of scissor blades, the presence of “tongues” of material and cut out sections of the fabric indicated that the damage to the top and brassiere was caused by scissors. The zipper area of the jeans was damaged, with some teeth and the zipper tag missing (Fig. 5). The two areas of stitching joining the left and right sides of the fly opening had been cut and torn, and the front crotch seam had been separated to the center crotch join by tearing of the seam stitches. The stitches may have been cut with any appropriate cutting implement. Once the joining stitches had been cut then it was relatively easy to separate the crotch seams; simulation experiments showed that normal manual force only could not replicate the original damage. The evidence damage did not agree with the complainant’s scenario of solely knife damage and/or manually tearing. When confronted with this evidence, and other inconsistencies in her statement, the woman confessed to fabricating her story. She concocted the allegation because she wanted to obtain money from the Crimes Compensation Tribunal. She was subsequently charged with false report.

Discussion

Previous research has shown that it is possible to distinguish various forms of damage (9). Damage analysis alone, without further comparison, may resolve certain contentious points in an investigation. For example, a complainant may allege her attacker tore her underpants manually; analysis of the underpants may reveal scissor cut “stoppages,” indicating the damage was caused by scissors.

When simulation experiments are performed in order to determine whether a provided scenario is feasible, alternative hypotheses as to the circumstances of the event should be noted and tested. On occasions it may be necessary to list impossibilities rather than possibilities. The characteristics produced in the simulations are compared to the “crime” scenario damage. Similarities and dissimilarities should be noted. Although cuts and tears may be easily differentiated, damage with few outstanding characteristics may be

difficult to interpret. It may not always be possible to unequivocally choose one hypothesis (or scenario) over another due to the inherent limitations of damage analysis (8).

Any inconsistencies of body fluid soiling (such as blood) with the damage should be noted. The location and type of blood staining, in particular inner versus outer surfaces and smearing of blood or its complete absence in the cases of stab-type cuts, may disprove or corroborate the particular crime scenario.

Although not medically classified as a Munchausen patient, the lawyer in Case 2 exhibited syndromes of this psychological disease. A Munchausen syndrome patient was first described by Asher (12) as one who masquerades illness in order to gain admission to hospital. In the same way that Munchausen patients manipulate hospitals and doctors, a fraudulent claim of rape might be interpreted as a form of manipulation directed at the criminal justice system (3). Separate bizarre instances of Case 2 included: a dummy fashioned from bedding and clothing with a face drawn on it in lipstick and the words “Who am I?” written on the wall above; another dummy positioned on a chair at a kitchen table with a bowl of soup in front of it; and a rubbish bin set alight next to a wall painted with the words “To Us.” During the investigation it was revealed that the complainant had an obsession with police. A recent report on a Munchausen syndrome patient making a false sexual assault allegation, which included severe self-infliction, stated that even though this may be a rare diagnosis the medical examiner should be aware of the possibility (13). Case 2 illustrates that the syndrome may not be as rare as previously thought and is an example of the attention-seeking complainant with a personality disorder. Clothing damage analysis was more complex in this case in that the particular weapon/s allegedly used were indeed involved, but in a different manner to that of the alleged scenario. The examination may also have been more complex in this case because the complainant, being a lawyer, was aware of the processes of the judicial system.

The complainant of Case 3, while motivated by financial gain, nevertheless went to extreme measures by inserting an oily substance into her vagina to mimic the sexual assault. Initially the po-



FIG. 3—Cut/tears across front of top of Case 3.

lice believed her story because she was “mature,” presented medically in extreme pain, and her clothing was extensively damaged. cursory clothing damage analysis quickly provided doubts as to her story, and a more intensive examination of the clothing disproved her scenario and directed the investigators along appropriate avenues.

The three cases described above involved “unknown” offenders. If there is no nominated suspect in cases of false sexual assault then the ultimate injustice that occurs to an innocent suspect or accused is averted. Nevertheless, there may be a real fear created in the community by the publication of an “unknown” sexual offender at large. Case 3 created a great deal of media interest since it supposedly involved the brutal rape of a grandmother on her way home from shopping. The subsequent retraction of her story was unfor-

tunately little publicized. The wastage of police resources may also be high in these cases. Case 2 involved the expenditure of valuable police resources and time over a period of six months, and subsequent lengthy court hearings (the court case was adjourned five times due to the noncooperation of the complainant, including two drug overdoses).

Due to the wide publicity of DNA profiling, a complainant in a false report may be well aware of the futility of claiming ejaculation by an “offender.” This may explain the absence of these claims in the above cases. However, the public may be unaware of the evidence to be gained from damaged clothing and thus the complainants may be less careful in their “recreation” of a scenario.

Although these three cases have involved identified false reports, this laboratory has had many cases where a claim was initially be-

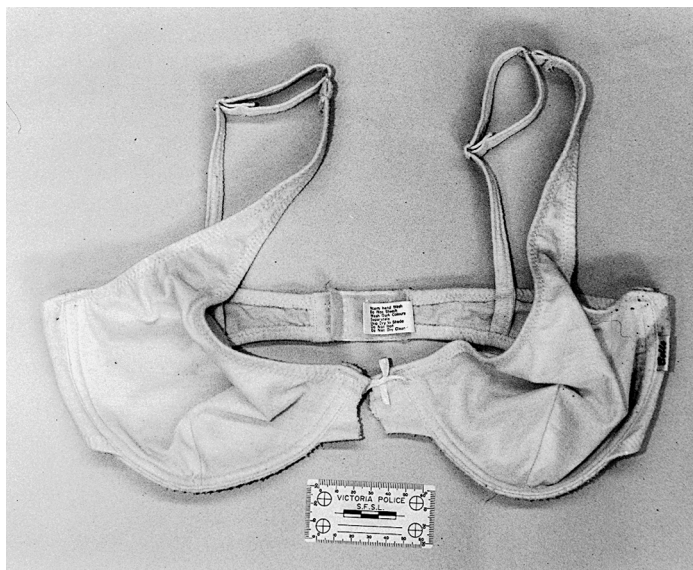


FIG. 4—Severed brassiere of Case 3.

lieved to be false but clothing damage analysis supported the complainant's allegation. This is no less important in order to avert any further ordeal to the complainant and ultimately the detriment of the investigation. Rape is the only serious crime in which victims are generally thought to be responsible for their own assault (10). The adversarial ordeal that a rape victim still faces leads, not surprisingly, to under-reporting of the offenses (6). Any evidence that supports the victim in these cases is thus extremely valuable.

The quicker the investigation of a false report supports or refutes the claim, the greater the benefit for all concerned. In cases of suspected false report of rape it is imperative that the investigation be directed quickly to minimize any ordeal to the complainant, to any suspect and, indeed, ultimately to the public. Damage analysis is most often timely and an opinion may be given at short notice. It is thus important that the investigator and the forensic analyst be aware of the potential evidential value of clothing damage analysis in these kinds of cases.

References

1. Taupin JM. Damage identification—a method for its analysis and application in cases of violent crime. Proceedings, 14th Meeting of the IAFS, August 1996, Tokyo, Japan.
2. Taupin JM. Damage to a wire security screen: adapting the principles of clothing damage analysis. *J Forensic Sci* 1998;43:897–900.
3. McDowell CP, Hibler NS. False allegations. In: Hazelwood R, Burgess A, editors. *Practical aspects of rape investigations*. New York: Elsevier, 1987.
4. Faller-Marquardt M, Ropohl D, Pollak S. Excoriations and contusions of the skin as artifacts in fictitious sexual offenses. *J Clin Forensic Med* 1995;2:129–35.

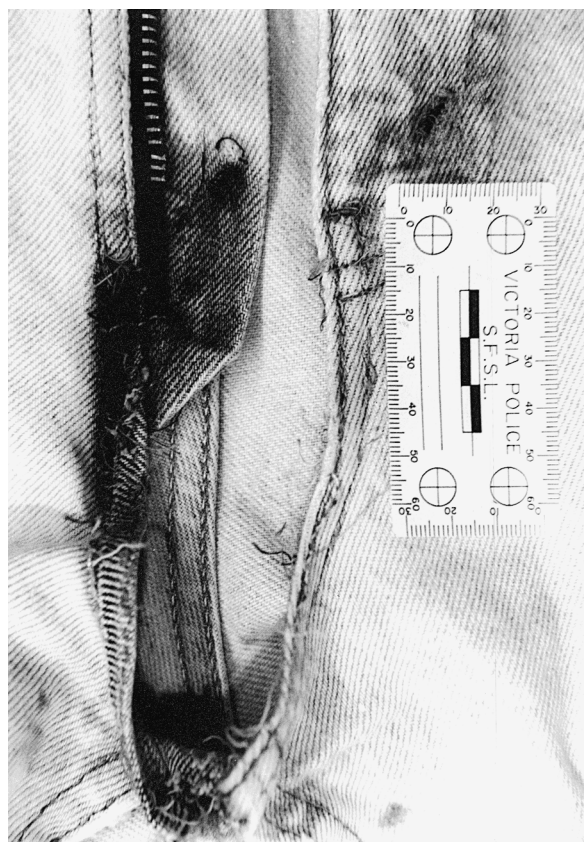


FIG. 5—Damaged jean zipper of Case 3.

5. Adshead G. Psychological trauma and its influence on genuine and false complaints of sexual assault. *Med Sci Law* 1996;36(2):135–40.
6. Williamson T. Police investigation—separating the false and the genuine. *Med Sci Law* 1996;36(2):135–40.
7. Rogers D. Physical aspects of alleged sexual assaults. *Med Sci Law* 1996;36(2):117–22.
8. Taupin JM. Testing conflicting scenarios—a role for simulation experiments in damage analysis of clothing. *J Forensic Sci* 1998;43(4):891–6.
9. Monahan DL, Harding HW. Damage to clothing—cuts and tears. *J Forensic Sci* 1990;35:901–12.
10. Aiken M, Burgess A, Hazelwood R. False rape allegations. In: Hazelwood R, Burgess A, editors. *Practical aspects of rape investigations*. CRC Press, 1995.
11. Kanin E. False rape allegations. *Arch Sex Behav* 1994;23(1):81–92.
12. Ascher R. Munchausen's syndrome. *Lancet* 1951;1:339–41.
13. Gibbon K. Munchausen's syndrome presenting as an acute sexual assault. *Med Sci Law* 1998;38(3):202–5.

Additional information and reprint requests:

Jane Moira Taupin, M.A.
 Victoria Forensic Science Centre
 Victoria Police
 Forensic Drive
 Macleod, Victoria 3085 Australia