

Original communication

# Adolescent complainants of sexual assault; injury patterns in virgin and non-virgin groups ☆

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## Abstract

**Introduction:** Misconceptions about the likelihood of sustaining injuries following rape or sexual assault can have a detrimental effect on the justice process. This is particularly noticeable with regard to first time intercourse. Forensic physicians have a duty to put any examination findings in context. This study sets out to compare the findings in virgin and non-virgin adolescents seen at the St Mary's Sexual Assault Referral Centre, after an allegation of non-consensual intercourse.

**Methodology:** The records of all females aged 12–17 years old, examined in an 18 month period were reviewed.

**Results:** Two hundred and twenty-four clients fitted this group with a mean age of 14.8 years. Eighty-one were “virgins” and 97 had been sexually active prior to the assault. The virgin group took longer to present for examination than the non-virgin group (90 h compared to 44 h). Of all clients 51% had a non-genital injury. These tended to be minor. 32% of the non-virgin group had a genital injury.

In the virgin group, 53% had a genital injury, however only 32% had the type of genital injury that would leave permanent evidence of penetration (i.e. if examined several weeks or more later).

Alcohol use prior to assault was common.

**Conclusions:** Genital and or body injuries are not routinely found in adolescents after an allegation of rape or sexual assault even when there has not been previous sexual experience. The absence of injury does not exclude the possibility of intercourse, whether with or without consent.

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**Keywords:** Sexual assault; Adolescents; Virgins; Injuries

## 1. Introduction

### 1.1. Forensic medical examination

One of the roles of the forensic physician in cases of sexual assault is to record the history of the allegations and to document injuries found. However, there are still many misconceptions about the likelihood of sustaining injuries after a rape or sexual assault that, potentially, can have a negative impact on the justice process. For example, the

case of a complainant whose examination findings do not match the perceived “norm” for such an assault might not be investigated as thoroughly. Likewise, the prosecutors may be less inclined to proceed with a case where the doctor describes “neutral” findings, not appreciating that this is a common finding. Furthermore, victims themselves may be confused as to whether they have been legally raped, especially when the assailant was a current or former partner<sup>11</sup> and/or when no physical injury was sustained.<sup>16</sup>

It is the forensic physician's duty to set forensic findings in the context of what may or may not be seen in cases of sexual assault. But that vital role can only be exercised if forensic clinicians are given the opportunity to explain their findings. In some jurisdictions the doctor will always

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be asked to provide a statement after conducting a sexual assault examination, but this is not the case in many areas. In Greater Manchester, for example, statements are only requested in approximately 25% of cases. It is only if a statement is requested that the doctor has an opportunity to explain any findings or *absence of findings* and offer possible explanations.

Just as important as being offered the opportunity to explain findings is the need for the explanations to be evidence-based. Thus, the widespread lack of appreciation that first time sexual intercourse (whether consensual or non-consensual) does not always damage the hymen causes confusion and explains the continued practice of “virginity” testing by doctors in some countries.<sup>13,3</sup> This study aims to inform the debate by assessing the injury patterns in virgin and non-virgin adolescent complainants of sexual assault.

### 1.2. St. Mary’s sexual assault referral centre

Established in 1986, the St. Mary’s Centre, in Manchester, was the first comprehensive forensic medical, counselling and aftercare service in the UK for people alleging rape or sexual assault. The Centre sees females and males that either live in or were assaulted in Greater Manchester. Based at dedicated accommodation in St. Mary’s Hospital, counselling and other support services are provided, as well as forensic medical examinations conducted by a specially trained staff of female doctors on behalf of Greater Manchester Police. All of the centre’s services are free to eligible clients.

### 1.3. Literature review

The issue of genital injuries sustained due to rape has received an increasing amount of attention, with studies reporting a wide range of findings.<sup>10</sup> However, those studies tend to focus on adults rather than adolescents, whereas the literature on child sexual abuse tends to focus on pre-pubescent children, e.g. in Heger et al.<sup>7</sup> the average age of female participants was 6.9 years. The reported incidence of genital injury in adults due to penile-vaginal rape by a single assailant varies from about 15%<sup>4</sup> to 68%<sup>15</sup> and even as high as 87%,<sup>14</sup> the variation depending in part on whether examination is conducted with the naked eye or under magnification. The importance of prior sexual activity and, crucially, its effect on the hymen adds further dimensions to the uncertainty of rape-consequent genital injury in adolescents.

A retrospective case review of 36 pregnant adolescent girls who presented for sexual abuse examinations found that only 2 (5.6%) had genital findings indicative of penetration despite the fact that all had been pregnant.<sup>8</sup> A similar study of 214 females, mean age 16.3 years, attending a sexual assault response team found 21% presented with no abnormal findings. Although, virgins were significantly more likely to have a hymenal injury than non-virgins

(19% to 3%,  $p = 0.008$ ), there was no significant difference in other genital injuries. The importance of early examination was noted, although even then the absence of specific findings is common.<sup>1</sup>

Adams et al.<sup>2</sup> coined the phrase “it’s normal to be normal” in conclusion to their retrospective study of files and colposcopic photographs of 236 children with perpetrator conviction for sexual abuse. The mean age of the patients was 9.0 years, with 63% reporting penile genital contact. Genital examination findings in girls were normal in 28%, non-specific in 49%, suspicious in 9% and abnormal in 14% of cases. Another maxim is that “normal does not mean nothing happened”, the conclusion to Goodyear-Smith and Laidlaw’s<sup>5</sup> review of the literature that established that it is often impossible to discern whether or not a hymen is ‘intact’ with regard to past sexual intercourse.

## 2. Methods

### 2.1. Aims

The purpose of this audit was to assess the incidence of genital injury in adolescent female clients (who may or may not previously been sexually active), as this may vary from the received knowledge based on adult observations. For the purpose of the audit, injury was defined as laceration, abrasion, bruise or burn. Subjectively reported or potentially normal physiological features were excluded, such as reddening (erythema), swelling and tenderness.

### 2.2. Participants

All females, aged 12–17 year old, examined at the Centre in the prior 18 months, were included in the audit, giving a total of 224 clients (mean age 14.8 years). These were divided into two main participant groups: 81 ‘virgins’, who said that they had not had penile-vaginal penetrative sexual intercourse before the sexual assault; and 97 ‘non-virgins’, who had. Details of prior sexual activity were not recorded in client notes for the remaining 46 participants.

### 2.3. Procedure

Client records were reviewed by the authors and quantified on the target criteria using Excel and SPSS databases. Frequencies were calculated for all data, and the unrelated T, Fisher’s exact (crosstabs), and Mann–Whitney U tests were conducted to examine differences between virgins and non-virgins. The data collated were as follows:

- a) *Demographic*: age (years); menarche (yes/no); tampon use (yes/no); previous sexual intercourse (yes/no); ethnic origin (NHS standard categories); number of births by vaginal delivery; being looked after/“incare” (yes/no).

- b) *Circumstantial*: hours from assault to examination; referral source (police/self); criminal justice outcome; penile-vaginal penetration (yes/no); digital-vaginal penetration (yes/no); penile-anal penetration (yes/no); digital-anal penetration (yes/no); object-anal penetration (yes/no); fellatio (yes/no); cunnilingus (yes/no); relationship to offender; alcohol use prior to assault (yes/no); estimated units consumed (in the UK a Unit of alcohol is the equivalent of 10 ml or 8 g of pure alcohol (ethanol)); drug use prior to assault.
- c) *Forensic medical*: hymen oestrogenised (yes/no); hymen fimbriated (yes/no); vaginal discharge (yes/no); self-harm injuries present (yes/no); old self-harm injuries (yes/no); fresh self-harm injuries (yes/no); body injury (yes/no); genital injury (yes/no); vulva injury (yes/no); Fourchette injury (yes/no); hymen injury (yes/no); vagina injury (yes/no); speculum used (yes/no).

3.1.2. Menarche, tampon use, and parity

There were no statistically significant differences between the virgins and non-virgins with respect to menarche and tampon use (see Table 2). Overall 209 (93.3%) participants were post-menarche and six (2.7%) pre-menarche, menarche status was not recorded in nine (4.0%) cases. Equal numbers of participants did and did not use tampons, 78 (34.8%). Tampon use was not recorded for 62 (27.7%) participants and this issue did not apply to the six (2.7%) that were pre-menarche. Crosstabs analyses of the genital injury data by tampon use found that using tampons was positively associated with a higher incidence of vulval injury ( $p = 0.001$ ). Yet the opposite was the case for hymenal injury, which was more common in the non-tampon using group ( $p = 0.044$ ), see Table 3. Nine (9.3%) of the non-virgin participants had given birth vaginally.

3. Results

3.1. Demographic data

3.1.1. Ethnicity and age

Of the participants, 202 (90.2%) were White (see Table 1 for details). There was no statistically significant difference between the groups based on ethnicity (see Table 2). The non-virgin group mean age was 15.3 years, which was significantly higher than the virgin group mean age of 14.3 years (unrelated T test,  $p = 0.00$ , two-tailed,  $df = a < 0.05$ ).

Table 1  
Ethnicity of participants, excluding unknowns

Ethnic group	All, $n = 210$		Virgins, $n = 78$		Non-virgins, $n = 91$	
	$N$	%	$N$	%	$N$	%
British	199	94.8	72	92.3	88	96.7
Irish	3	1.4	2	2.6	1	1.1
White Black Caribbean	2	1.0	2	2.6	0	0.0
White Asian	1	0.5	1	1.3	0	0.0
Other Dual Heritage	1	0.5	0	0.0	1	1.1
African	2	1.0	0	0.0	1	1.1
Pakistani	2	1.0	1	1.3	0	0.0

Table 2  
Crosstabs analyses of demographic data and referral source by virginity status

Status	Virgin, $n = 81$				Non-virgin, $n = 97$				Fisher exact $P$ (2-tailed, $\alpha < 0.05$ )		
	$N$ positive	% Positive	$N$ total <sup>a</sup>	95% CI		$N$ positive	% Positive	$N$ total <sup>a</sup>		95% CI	
				Low	Up					Low	Up
Ethnicity White	74	94.9	78	0.377	1.229	89	97.8	91	0.524	5.123	0.416
Menarche	74	94.9	78	1.148	2.942	96	99.0	97	0.061	2.054	0.173
Tampon use	27	40.3	67	0.925	1.875	37	53.6	69	0.551	1.072	0.127
Police referral	76	93.8	81	0.378	1.023	95	97.9	97	0.598	6.321	0.248
In-care	5	6.2	81	0.942	4.500	16	16.8	95	0.503	0.889	<b>0.036</b>

<sup>a</sup> Excluding unknowns.

Table 3  
Crosstabs analyses of genital injuries by tampon use

Status	Tampon users, $n = 78$				Non-tampon users, $n = 78$				Fisher exact $P$ (2-tailed, $\alpha < 0.05$ )		
	$N$ positive	% Positive	$N$ total*	95% CI		$N$ positive	% Positive	$N$ total*		95% CI	
				Low	Up					Low	Up
Genital injury	26	51.0	51	0.736	1.693	39	55.7	70	0.678	1.255	1.000
Hymen injury	13	17.8	73	1.265	3.360	33	43.4	76	0.435	0.779	<b>0.001</b>
Vulva injury	10	13.7	73	0.425	0.853	3	3.9	76	0.852	6.352	0.044
Fourchette injury	10	13.7	73	0.668	1.782	12	15.8	76	0.608	1.404	0.819
Vagina injury	0	0.0	73	–	–	4	5.3	76	0.421	0.585	0.120

### 3.1.3. Being looked after (in-care)

There was a higher proportion of non-virgins in-care (i.e. with Social Services, foster parents or other guardians) than there were virgins, 16.8–6.2%, and this was statistically significant ( $p = 0.036$ , see Table 2).

## 3.2. Circumstantial data

### 3.2.1. Time elapsed from assault to examination

Virgins took much longer to attend the Centre for an examination (mean 90.3 h) compared to non-virgins (mean 43.9 h). The unrelated T test found that this difference was statistically significant at the 0.05 level ( $p = 0.037$ , two-tailed,  $df = 116.265$ ).

### 3.2.2. Referral source

There were slightly more police-referrals in the non-virgin group, 95 out of 97 (97.9%) compared to 76 out of 81 (93.8%) in the virgin group, but this was not statistically significant (see Table 2). Overall there were 216 (96.4%) police referrals, 5 (2.2%) self-referrals, and 3 (1.3%) self-referrals that made police reports whilst at the Centre.

### 3.2.3. Criminal justice outcome

There was no statistically significant difference between the two groups regarding the outcome of involvement with the criminal justice system (Mann–Whitney U test,  $a < 0.05$ ). The main (known) category was for the offence to remain undetected by the police (55, 24.6% of all participants). A conviction was obtained in nine (7.1%) of cases, but there were a further 30 (13.4%) cases that went to trial in which the outcome is unknown. See Table 4 for details.

### 3.2.4. Assault types

There were no statistically significant differences between the groups on assault type, although there was a very strong trend to more reports by virgins of penile-vaginal penetration (see Table 5).

### 3.2.5. Alcohol and drug use

The higher prevalence in the non-virgin group of alcohol use prior to the assault was statistically significant ( $p = 0.000$ , see Table 6), although not for drug use. There was no statistically significant difference between the groups for amount of alcohol consumed (unrelated T test,  $a < 0.05$ ; see Table 7 for frequencies). The amount of alcohol consumed was based on the history given rather than toxicological studies.

Table 4  
Criminal justice outcomes, all participants,  $n = 224$

Outcome	N	%	Valid %
Undetected	55	24.6	37.4
Trial, but result unknown	30	13.4	20.4
Retracted <sup>a</sup>	23	10.3	15.6
No case <sup>b</sup>	18	8.0	12.2
No crime <sup>c</sup>	12	5.4	8.2
Conviction	9	7.1	6.2
Self-referral	5	2.2	–
No record of outcome	72	32.1	–

<sup>a</sup> Client retracted statement or would not support a prosecution.

<sup>b</sup> CPS did not bring case or case dropped at court.

<sup>c</sup> Police category 'no crime' may overlap with retraction.

Table 5  
Crosstabs analyses of assault types data

Status	Virgin, $n = 81$				Non-virgin, $n = 97$				Fisher exact $P$ (2-tailed, $a < 0.05$ )		
	N positive	% Positive	N total <sup>a</sup>	95% CI		N positive	% Positive	N total <sup>a</sup>		95% CI	
				Low	Up					Low	Up
Penile-vaginal	70	92.1	76	0.276	1.053	73	82.0	89	1.053	1.927	0.068
Digital-vaginal	8	10.4	77	0.849	2.794	17	19.3	88	0.544	1.022	0.131
Penile-anal	3	3.8	80	0.410	2.099	3	3.3	92	0.476	2.417	1.000
Digital-anal	0	0.0	80	–	–	2	2.2	91	0.456	0.608	0.499
Object-anal	0	0.0	80	–	–	1	1.1	91	0.459	0.610	<b>1.000</b>
Fellatio	5	6.3	80	0.609	2.503	8	8.8	91	0.542	1.345	<b>0.577</b>
Cunnilingus	1	1.3	80	0.232	3.773	1	1.1	91	0.264	4.289	1.000

<sup>a</sup> Excluding unknowns.

Table 6  
Crosstabs analyses of alcohol and drug use prior to assault

Status	Virgin, $n = 81$				Non-virgin, $n = 97$				Fisher exact $P$ (2-tailed, $a < 0.05$ )		
	N positive	% Positive	N total <sup>a</sup>	95% CI		N positive	% Positive	N total <sup>a</sup>		95% CI	
				Low	Up					Low	Up
Alcohol use	30	37.0	81	1.415	2.800	66	68.0	97	0.404	0.749	<b>0.000</b>
Drug use	5	6.2	81	0.630	2.671	9	9.3	97	0.551	1.265	0.579

<sup>a</sup> Excluding unknowns.

Table 7  
Alcohol units consumed by those that had been drinking, excluding unknowns

Frequency	All, n = 96	Virgins, n = 23	Non-virgins, n = 60
Mean	7.26	6.35	7.82
Median	6.00	6.00	6.50
Mode	6	3 and 6	5
St. Dev.	4.463	4.302	4.742
Minimum	1	1	1
Maximum	22	15	22

3.2.6. Relationship to assailant

There was no statistically significant difference between the two groups regarding relationship to the offender (Mann–Whitney U test,  $a < 0.05$ ). The assailant was somehow known to the victim in 131 (58.5%) cases and a stranger in 66 (29.5%) of cases (see Table 8 for details).

3.3. Forensic medical data

3.3.1. Injuries

The higher rate of self-harm observed in the non-virgin group was statistically significant, at 14.9% compared to 5.3% in the virgin group ( $p = 0.049$ , see Table 9). Whether

self-harm injuries were old or fresh was similar between the self-harming members of both groups (see Figs. 1 and 2).

There were no statistically significant differences for the presence of genital or non-genital injuries overall. However, when different genital sites were looked at, a statistically significant difference between the groups was noted regarding the hymen ( $p = 0.000$ ). Hymen injury was noted in 40 (50.6%) participants of the virgin group, but only 11 (12.4%) of the non-virgin group (see Table 10). Rates of injury to the vulva, fourchette and vagina were very similar (see Fig. 3).

Table 8  
Relationship to the offender, all clients, n = 224

Relationship	N	%
Stranger	66	29.5
Friend	45	20.1
Acquaintance over 24 h	32	14.3
Acquaintance under 24 h	29	12.9
Family member	10	4.5
Acquaintance time unknown	6	2.7
Current partner	6	2.7
Former partner	1	0.4
Authority figure	1	0.4
Mother's partner	1	0.4
Unknown	27	12.1

Table 9  
Crosstabs analyses of injury data

Status	Virgin, n = 81				Non-virgin, n = 97				Fisher exact P (2-tailed, $a < 0.05$ )		
	N positive	% Positive	N total <sup>a</sup>	95% CI		N positive	% Positive	N total <sup>a</sup>		95% CI	
				Low	Up					Low	Up
Self-harm evident	4	5.3	75	0.877	5.105	14	14.9	94	0.510	0.909	<b>0.049</b>
Old self-harm	2	50.0	4	0.696	17.589	12	85.7	14	0.214	1.590	1.000
Fresh self-harm	2	50.0	4	0.073	2.036	3	21.4	15	0.665	2.992	0.533
Body injury	39	49.4	79	0.851	1.630	54	56.8	95	0.662	1.149	0.362
Genital injury	43	62.3	69	0.508	1.025	31	46.3	67	0.985	1.951	0.085
Hymen injury	40	50.6	79	0.317	0.570	11	12.4	89	1.803	5.298	<b>0.000</b>
Vulva injury	5	6.3	79	0.654	2.769	9	10.1	89	0.532	1.229	0.416
Fourch-ette injury	13	16.5	79	0.609	1.419	13	14.6	89	0.708	1.619	1.000
Vagina injury	2	2.5	79	0.348	2.536	2	2.2	89	0.394	2.857	1.000

<sup>a</sup> Excluding unknowns (and for old/fresh self-harm also excluding cases of no self-harm).

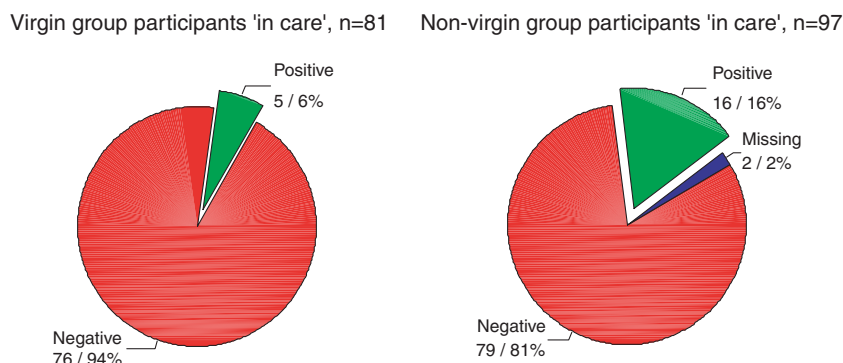


Fig. 1. Pie charts of virgin and non-virgin participants in care.

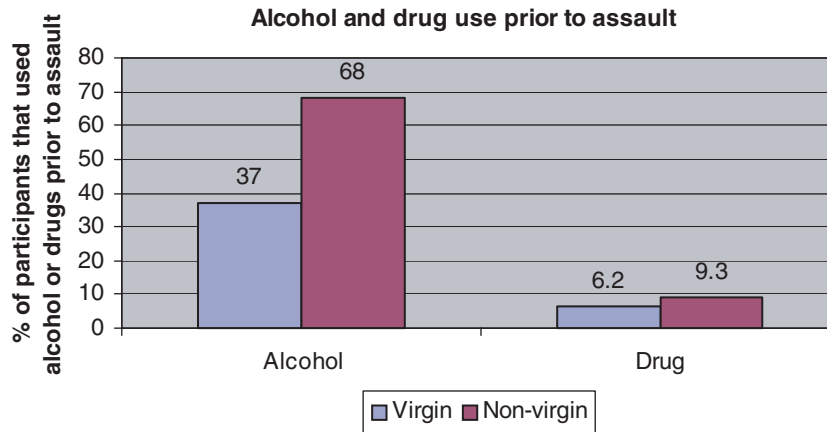


Fig. 2. Bar chart of alcohol and drug use by virgin and non-virgin participants.

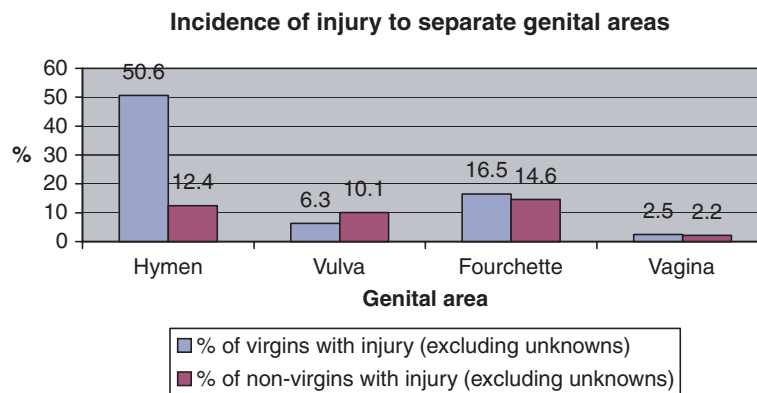


Fig. 3. Bar chart of incidence of genital injury in virgin and non-virgin participants.

Non-genital injuries tended to be fairly minor, including bruises, abrasions. None of the observed injuries (genital and non-genital) were severe enough to require referral to hospital for continued care. Most of the virgin hymen injuries (26/40, 65%) were full thickness lacerations and all were in the posterior portion between 3 and 9 o'clock, with 18 of the 26 (69%) more narrowly placed between 5 and 7 o'clock. The other virgin hymen injuries were bruises, abrasions or less than full thickness lacerations (see Fig. 4).

#### 4. Discussion

##### 4.1. Demography

##### 4.1.1. Ethnicity and age

Ethnic differences were not statistically significant but the virgin group was on average 1 year younger than the non-virgin group. This age difference may be responsible for some of the statistically significant findings between the groups, e.g., older adolescents have greater access to

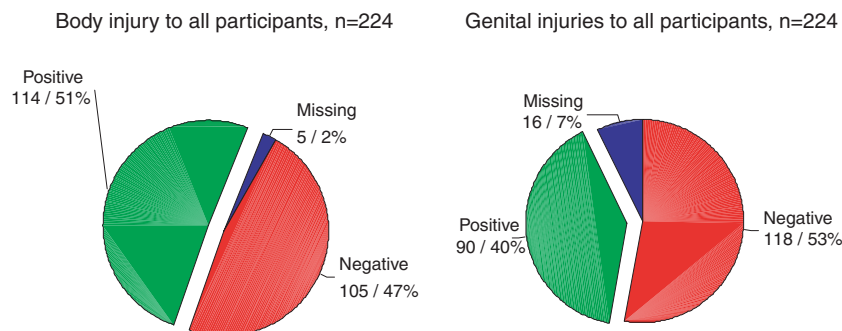


Fig. 4. Pie charts of body and genital injuries to all participants.



alcohol and a higher proportion of non-virgins had consumed alcohol (see Tables 10–12).

#### 4.1.2. Menarche, tampon use, and parity

Tampon users were less likely to have hymenal injuries than non-tampon users. This could have a variety of explanations. It may be that using tampons “stretches” the hymen therefore making penile penetration less likely to cause an injury. It could also be that those girls with a larger hymenal orifice or stretchier hymen are more likely to find tampon use acceptable than those where the hymen is less accommodating to tampon insertion. The question “have you ever tried to use tampons?” is not routinely asked but may shed some light on this.

#### 4.1.3. Being looked after (in-care)

There was a higher proportion of non-virgins in-care. As this group was also older it may just reflect the fact that they have had more time to be exposed to the sort of difficulties that lead to care orders rather than represent genuinely increased sexual activity amongst those in-care.

## 4.2. Circumstances of assaults

### 4.2.1. Time elapsed from assault to examination

It is unclear why the virgin group took longer to attend than the non-virgin group (90.3 h as compared to 43.9 h). The time difference is marked. As most of the cases were police referrals it can not be attributed to lack of knowledge of St. Mary’s service. The delay is in making the initial report to the police. It may be that they are more frightened to report than the non-virgin group who tended to be older. The longer time delay makes them more exposed to unwanted pregnancy and infection. It perhaps warrants a further study looking at factors that influence delay in reporting.

### 4.2.2. Referral source

Overwhelmingly this adolescent group were police cases. The overall figures looking at all age groups for St. Mary’s attendees are that 18% are self-referrals. The self-referral group in the adolescent group have implications for Child Protection issues. As most are police referrals it makes following these procedures much easier for the centre.

Table 10  
Summary of presence and absence of injuries for all participants,  $n = 224$

Finding	Body area											
	Body		Genital (all)		Hymen		Vulva		Fourchette		Vagina	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Yes	114	50.9	90	40.2	62	27.7	19	8.5	32	14.3	6	2.7
No	105	46.9	120	53.6	148	66.1	191	85.3	178	79.5	204	91.1
Not examined	5	2.2	0	0.0	14	6.3	14	6.3	14	6.3	14	6.3
Not known	0	0.0	14	6.3	0	0.0	0	0.0	0	0.0	0	0.0

Table 11  
Summary of presence and absence of injuries for all known virgins,  $n = 81$

Finding	Body area											
	Body		Genital (all)		Hymen		Vulva		Fourchette		Vagina	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Yes	39	48.1	43	53.1	40	49.4	5	6.2	13	16.0	2	2.5
No	40	49.4	36	44.4	39	48.1	74	91.4	66	81.5	77	95.1
Not examined	2	2.5	0	0.0	2	2.5	2	2.5	2	2.5	2	2.5
Not known	0	0.0	2	2.5	0	0.0	0	0.0	0	0.0	0	0.0

Table 12  
Summary of presence and absence of injuries for all known non-virgins,  $n = 97$

Finding	Area											
	Body		Genital (all)		Hymen		Vulva		Fourchette		Vagina	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Yes	54	55.7	31	32.0	11	11.3	9	9.3	13	13.4	2	2.1
No	41	42.3	58	59.8	78	80.4	80	82.5	76	78.4	87	89.7
Not examined	2	2.1	0	0.0	8	8.2	8	8.2	8	8.2	8	8.2
Not known	0	0.0	8	8.2	0	0.0	0	0.0	0	0.0	0	0.0

#### 4.2.3. Criminal justice outcomes

The known conviction rate is low, 9 out of 224. Despite St. Mary's having systems in place to track outcomes (this is done via written communication with the police) it is disappointing that in 72 of the 224 cases there was none known. Currently Greater Manchester does not have rape specialist officers. Their introduction should make the tracking process easier. This is important as improving the attrition rate can only be achieved by first understanding where cases fall out of the system.

#### 4.2.4. Alcohol and drug use prior to assault

The finding that the non-virgin group was more likely to have consumed alcohol prior to the assault than the virgin group may be explained by the average age difference. That such a high proportion had consumed alcohol is of concern. It may be that alcohol is a confounder rather than a causal factor, however, the sheer amount that some had consumed is a health issue in itself. This is a public health issue as well as a criminal justice matter and requires joint working between agencies such as Health, Education and the police.

#### 4.2.5. Relationship to assailant

In line with the findings of other studies, the results show that the assailant is acquainted with the victim in the majority of cases. Despite this, the public perception is otherwise, a view that may be sustained by media coverage of rape that focuses on cases with "stranger" assailants.

### 4.3. Forensic medical findings

#### 4.3.1. Injuries

The higher rate of self-harm in the non-virgin group may have several explanations: it may just be due to the higher average age; or it may be that this group is generally more vulnerable.

One of the most important points to take from these results is the frequency of no injuries being found, i.e. approximately 1 in 2 complainants will have no body injury and a similar number will have no genital injury. Of the virgins with genital injuries the majority were hymenal, 26 out of the 40 were full thickness lacerations. This means that 35% (14/40) of injuries are likely to heal leaving either no scar (e.g. bruises and abrasions) or changes in the hymen that are classified as non-specific (e.g. small lacerations less than full thickness). Therefore, only 32% (26/81) of the virgin group may have evidence of hymenal injury if examined several weeks or months later compared to 68% whose findings are likely to be interpreted as "normal" upon examination.

It has often been the experience of St. Mary's that lack of injuries has been viewed by the police and prosecutors as a negative rather than neutral finding. Having specialist police and prosecutors should enhance the understanding amongst the various professionals of the significance of the medical findings. This should aid deci-

sion making regarding progression of a case. Any uncertainty regarding medical findings should be discussed at pre trial conference.

## 5. Conclusion

### 5.1. Summary

The numbers of people coming forward to make complaints of rape and sexual assault has increased year on year since the opening of St. Mary's centre. The proportion of these that are adolescents has also increased. But also over this time the national conviction rate for rape has fallen: in 1977 it was 32%, decreasing to 5.6% in 2002.<sup>9</sup>

This study of adolescents presenting during an 18-month period established three key findings:

- a. Genital injury is not the norm following sexual assault, even when there is a history of not having been sexually active prior to the alleged assault.
- b. Nearly 50% will have no body injuries.
- c. The majority of the complainants knew their alleged attacker prior to the assault.

Some issues highlighted by these results raise more questions that may be worth further study:

- a. The high proportion of alcohol consumption prior to the alleged assault in these young girls. It would be interesting to see if the alcohol is a confounder rather than a causal factor in sexual assault/rape.
- b. The high rate of self-harm in the non-virgin group. Are there issues of self-esteem, self worth that need exploring?

### 5.2. Recommendations

1. Forensic physicians need to be aware of the myths and stereotypes that surround rape and sexual assault.
2. Forensic physicians need to raise these issues at every opportunity (e.g. in statements and witness testimony) to try to get the correct information to the decision makers (police, lawyers and juries) so that they can base their decisions on facts not fiction.
3. It is arguable that every rape examination should be followed swiftly by a statement which would put findings in context and aid decision making by the investigative team. This has time issues for the doctor and financial implications for the police.
4. Rape specialist lawyers should be routinely used for these cases.
5. Precourt conferences involving the forensic physician and counsel should be routine practice.
6. Rape specialist police officers should always be involved in these cases.



The last three of these recommendations were also made in the thematic review of rape investigations and prosecutions.<sup>6</sup>

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