

NINETEENTH JUDICIAL CIRCUIT OF VIRGINIA

Fairfax County Judicial Center  
4110 Chain Bridge Road  
Fairfax, Virginia 22030-4009  
(703) 246-2221 Fax (703) 385-4432

COUNTY OF FAIRFAX

CITY OF FAIRFAX

November 1, 2000

Andrew Kersey, Esquire  
Assistant Commonwealth's Attorney  
Office of the Commonwealth's Attorney  
4110 Chain Bridge Road  
Room 123  
Fairfax, Virginia 22030

James G. Connell, III, Esquire  
Devine & Connell, PLC  
10603 Judicial Drive  
Suite 250  
Fairfax, Virginia 22030

Thomas H. Estes, Jr., Esquire  
Assistant Public Defender  
Office of the Public Defender  
4103 Chain Bridge Road  
Suite 500  
Fairfax, Virginia 22030

Re: *Commonwealth v. Steven David Johnston*  
Criminal No. 98321

Dear Counsel:

This matter came on to be heard on October 27, 2000 on the defendant's "Motion *in Limine* to Exclude Opinion Testimony of Suzanne Brown as Scientifically Unreliable." At the conclusion of the hearing, the Court took the motion under

advisement. For the reasons stated below, the motion will be granted.

The defendant, Steven David Johnston, has been charged with two counts of rape and one count of sexual penetration with an animate object. The charges were recently severed for trial. At the trials, the Commonwealth intends to introduce the expert testimony of Suzanne Brown, a sexual assault nurse examiner employed by Inova Fairfax Hospital. Ms. Brown is expected to testify that she observed physical injuries to the genitalia of the complaining witnesses. Ms. Brown is further expected to testify that, to within a reasonable degree of medical certainty, physical injuries that are detectable by gross visualization<sup>1</sup> are not present in women in whom the “human sexual response” has been triggered.

At the hearing in this matter, Ms. Brown agreed with the defense counsel’s summary of her opinions as follows:

The “human sexual response” is an automatic, immediate, and involuntary physical change that women go through in anticipation of consensual sexual intercourse. When the “human sexual response” occurs, the labia become engorged with blood and change structurally to avoid genital injury. Because the “human sexual response” protects against genital injury during consensual sex, the presence of genital injury detectable by gross visualization demonstrates that sexual activity took place without the woman’s consent. Because the “human sexual response” is automatic, immediate, and involuntary, factors such as the length of the foreplay period, the influence of drugs or alcohol, sexual technique, and the lack of lubrication do not affect the conclusion that the presence of genital injury detectable by gross visualization demonstrates sex without consent.

See Defendant’s Motion *in Limine*, pp. 1-2.

---

<sup>1</sup> Ms. Brown defined injuries detectable by “gross visualization” as injuries visible to the naked eye without magnification.

The Commonwealth concedes that Ms. Brown will not testify at trial that any genital injuries she observed are “consistent with nonconsensual sex” or “inconsistent with consensual sex.” The Commonwealth does intend to elicit opinions from Ms. Brown to the effect that the injuries she observed are inconsistent with the triggering of the “human sexual response” in the complaining witnesses.

The defendant challenges the admissibility of Ms. Brown’s opinions as being scientifically unreliable. The Commonwealth responds that the defense’s objections to Ms. Brown’s testimony are simply a matter for cross examination and go to the weight the jury should give her opinions, not their admissibility.

In Virginia, “[r]elevant scientific evidence is admissible if the expert is qualified to give testimony and the science upon which he testifies is reliable.” *Farley v. Commonwealth*, 20 Va. App. 495, 498, 458 S.E.2d 310, 312 (1995). In the leading case of *Spencer v. Commonwealth* (“*Spencer IV*”), the Virginia Supreme Court opined:

When scientific evidence is offered, the court must make a threshold finding of fact with respect to the reliability of the scientific method offered, unless it is of a kind so familiar and accepted as to require no foundation to establish the fundamental reliability of the system, such as fingerprint analysis; or unless it is so unreliable that the considerations requiring its exclusion have ripened into rules of law, such as “lie-detector” tests; or unless its admission is regulated by statute, such as blood-alcohol test results.

In making the threshold finding of fact, the court must usually rely on expert testimony. If there is a conflict, and the trial court’s finding is supported by credible evidence, it will not be disturbed on appeal. Even where the issue of scientific reliability is disputed, if the court determines that there is a sufficient foundation to warrant admission of the evidence, the court may, in its discretion, admit the evidence with appropriate instructions to the jury to consider the disputed reliability of the evidence in determining its credibility and weight.

*Spencer v. Commonwealth*, 240 Va. 78, 97-8, 393 S.E.2d 609, 621 (1990) (citations omitted).

In *Spencer IV*, the Virginia Supreme Court noted that if “admissibility were conditioned upon universal acceptance of forensic evidence, no new scientific methods would ever be brought to court.” Therefore, the task of the trial court is to determine whether scientific evidence is “so inherently unreliable that a lay jury must be shielded from it, or whether it is of such character that the jury may safely be left to determine credibility for itself.” 240 Va. at 98, 393 S.E.2d at 621.

In this case, the defendant concedes that “universal acceptance” and “scientific unanimity” are not required for the admissibility of scientific evidence. The defendant argues, however, that Ms. Brown’s opinions about the “human sexual response” and what it indicates about consensual versus nonconsensual sexual intercourse find no acceptance anywhere in the medical literature, including the studies that Ms. Brown cites as the basis for her opinions.

Ms. Brown testified that in arriving at her opinions about the “human sexual response” she relied on studies by Masters and Johnson, Slaughter and Brown, Norvell, and Cartwright. A careful review of those studies, however, reveals that none supports her opinion that genital injuries detectable by gross visualization do not result from consensual sexual intercourse.

The first study relied upon by Ms. Brown is Masters and Johnson.<sup>2</sup> Masters and Johnson discuss at some length the physiological changes to the female genitalia when sexually stimulated. Nothing in their study, however, addresses genital injury in the absence of the human sexual response.

Ms. Brown relies on three studies by Slaughter and Brown.<sup>3</sup> In the first of those studies, published in 1991, Slaughter and Brown discuss that, “with the *magnification*

---

<sup>2</sup> William H. Masters and Virginia E. Johnson, Human Sexual Response (1966).

<sup>3</sup> Laura Slaughter, M.D. and Carl R.V. Brown, PhD, Cervical Findings in Rape Victims, 164 Am. J. Obstet. Gynecol. 528-29 (1991); Laura Slaughter, M.D. and Carl R.V. Brown, PhD, Colposcopy to Establish Physical Findings in Rape Victims, 166 Am. J. Obstet. Gynecol. 83(1992); Laura Slaughter, M.D., Carl R.V. Brown, PhD, Sharon Crowley, MN and Roxy Peck, PhD, Patterns of Genital Injury in Female Sexual Assault Victims, 176 Am. J. Obstet. Gynecol. 609 (1997).

made possible by using the colposcope,” cervical injuries can sometimes be detected in victims of sexual assault.<sup>4</sup>

In Slaughter and Brown’s second study, published in 1992, they again advocate the use of magnification to identify genital injuries in rape victims. They conclude their 1992 study by observing that “more work needs to be done to describe the nature, extent and type of findings” of injury in rape victims and that a “[c]omparison of the frequency, pattern, or severity of trauma in rape victims and in women experiencing voluntary sex may be useful as well.”<sup>5</sup>

The 1991 and 1992 Slaughter and Brown studies were limited to colposcopic examinations of rape victims. Accordingly, they do not support Ms. Brown’s opinion that injuries detectable by *gross visualization* do not occur as a result of consensual sexual intercourse.

In the final Slaughter and Brown study relied upon by Ms. Brown, the authors continue to advocate the expanded use of colposcopy to identify and document genital injuries in rape victims. In this 1997 study, the authors compared genital findings in rape victims with those in women who had consensual intercourse. The authors found that 11% of the women who had consensual sexual intercourse had some form of trauma, defined as tears, ecchymoses (i.e., bruises), abrasions, redness, or swelling.<sup>6</sup> At the hearing on the defendant’s motion *in limine*, Ms. Brown agreed with the findings of the third Slaughter and Brown study, but maintained that the genital injuries to women who reported consensual sexual intercourse were detectable only by colposcopy, not by gross visualization.

Significantly, nothing in any of Slaughter and Brown’s three studies that Ms. Brown states she relies upon in forming her opinions supports her theory. In fact, Slaughter and Brown conclude their third and most recent study by opining that

---

<sup>4</sup> Laura Slaughter, M.D. and Carl R.V. Brown, PhD, Cervical Findings in Rape Victims, 164 Am. J. Obstet. Gynecol. 528-29 (1991) at 528 (emphasis added).

<sup>5</sup> Laura Slaughter, M.D. and Carl R.V. Brown, PhD, Colposcopy to Establish Physical Findings in Rape Victims, 166 Am. J. Obstet. Gynecol. 83 (1992) at 86.

<sup>6</sup> Laura Slaughter, M.D., Carl R.V. Brown, PhD, Sharon Crowley, MN and Roxy Peck, PhD, Patterns of Genital Injury in Female Sexual Assault Victims, 176 Am. J. Obstet. Gynecol. 609 (1997) at 611-612.

“[f]urther investigation is needed to determine whether there is a finding or group of findings that can distinguish nonconsensual and consensual activity.”<sup>7</sup>

Ms. Brown testified that she also relies upon a study by Norvell (and others) in support of her opinions about the “human sexual response.”<sup>8</sup> Norvell’s study, published in 1984, concluded that 61.1% of women who had consensual sexual intercourse showed microtrauma upon colposcopic examination. Norvell noted that “[t]his trauma is not visualized by gross inspection but requires the use of a colposcope.” Norvell concluded that “the presence of microtrauma could be valuable to the medical examiner trying to determine whether sexual intercourse occurred.”<sup>9</sup> Norvell’s study offers no support for Ms. Brown’s theory that injuries detectable by gross visualization cannot occur in women who have had consensual sexual intercourse. At best, Norvell’s study supports the proposition that microtrauma can indicate whether sexual intercourse (be it consensual or nonconsensual) has occurred.

The final study that Ms. Brown relies upon in reaching her opinions is a study by Cartwright.<sup>10</sup> Cartwright’s study, published in 1986, examined only injuries observable upon gross visualization. Cartwright found that 16% of rape victims had genital injuries detectable by gross visualization. He cited a study in which 19 patients who had consensual intercourse sustained “significant lacerations of the perineum or the vagina.” He concluded that the absence of genital injury does not imply that the victim consented to sexual intercourse and that “the presence of genital trauma only suggests that penetration has occurred and implies nothing about consent.”<sup>11</sup> Hence, Cartwright’s study does not support Ms. Brown’s theory.

---

<sup>7</sup> Laura Slaughter, M.D., Carl R.V. Brown, PhD, Sharon Crowley, MN and Roxy Peck, PhD, Patterns of Genital Injury in Female Sexual Assault Victims, 176 Am. J. Obstet. Gynecol. 609 (1997) at 615.

<sup>8</sup> Mark K. Norvell, M.D., Guy I. Benrubi, M.D. and Robert J. Thompson, M.D., Investigation of Microtrauma after Sexual Relations, 29 J. of Reprod. Med. 269 (1984).

<sup>9</sup> Id. at 271.

<sup>10</sup> Peter S. Cartwright, M.D., Royanne A. Moore, R.N., M.S.N., Jean R. Anderson, M.D., and Douglas H. Brown, M.D., Genital Injury and Implied Consent to Alleged Rape, 31 J. Reprod. Med. 1043 (1986).

<sup>11</sup> Id. at 1044.

The defendant introduced into evidence other studies upon which Ms. Brown does not rely or with which she is unfamiliar.<sup>12</sup>

One such study by Bowyer and Dalton published in 1997 states that the “association of genital injury and rape is questionable” and notes that there is “anecdotal evidence that consenting intercourse (the favoured legal term is ‘vigorous consenting intercourse’) can lead to the same genital injuries as rape.” The authors conclude that the absence of genital injury does not exclude rape.<sup>13</sup>

A second study cited by the defendant concludes that the type of genital injuries observed in cases of rape can be present in cases of consensual sexual intercourse “owing to insufficient lubrication, vigorous intercourse, or the inexperience of one or both of the partners.”<sup>14</sup>

The defendant cites a third study that concludes that the presence of lacerations in the posterior fourchette of adolescent girls is not diagnostic of sexual abuse. Such injuries are “as common in the sexually active adolescent population as in the sexually abused adolescent population.”<sup>15</sup>

A fourth study introduced by the defendant observes that “even with full consent intercourse can result in lesions like bruises, scratches and bites.”<sup>16</sup>

The defendant cites a final authority in which it is noted that vaginal bruising “can occur during consenting sexual intercourse as well as during acts where there has been no

---

<sup>12</sup> All of the studies cited herein were introduced into evidence as Defendant’s Ex. #2.

<sup>13</sup> Lucy Bowyer and Maureen E. Dalton, Female Victims of Rape and their Genital Injuries, 104 *British J. of Obstet. & Gynaecology* 617 (1997).

<sup>14</sup> Laurent Fanton, M.D., Patrice Schoendorff, M.D., Pierre Achache, M.D., Alain Miras, M.D. and Daniel Malicier, M.D., False Rape: A Case Report, 20 *Am. J. Forensic Med. & Pathology* 374 (1999).

<sup>15</sup> Jeanne McCauley, M.D., Richard L. Gorman, M.D., and Gay Guzinski, M.D., Toluidine Blue in the Detection of Perineal Lacerations in Pediatric and Adolescent Sexual Abuse Victims, 78 *Pediatrics* 1039 (1986). Ms. Brown testified that she agrees with the findings of this study as they relate to adolescents.

<sup>16</sup> A. Penttilä, M.D. and P.J. Karhunen, M.D., Medicolegal Findings among Rape Victims, 9 *Med Law* 725 (1990).

consent, and it is almost impossible to differentiate between the two causes.”<sup>17</sup> Although Paul notes that non-consensual sexual penetration may result in more severe bruising or abrasion, Paul concludes that “identical injury can result from consenting intercourse and intercourse without consent.” Paul labels as a “myth” and “entirely untrue” the theory that “the vagina will remain dry in non-consenting intercourse with the resulting production of serious abrasion and bruising.”<sup>18</sup> Paul summarizes that genital findings can only indicate whether penetration and intercourse have occurred, “but they can *never* indicate lack of consent.”<sup>19</sup>

In summation, nothing in the extensive medical literature submitted to the court, including the medical literature that Ms. Brown testified she relies upon in order to form her opinions, supports Ms. Brown’s theory that she can distinguish nonconsensual from consensual sexual intercourse by the presence of genital injury detectable by gross visualization. Not only is there an absence of support in the medical literature for Ms. Brown’s theory, but also the defendant has produced medical literature that directly contradicts her opinions.

Ms. Brown’s expertise as a sexual assault nurse examiner is not disputed. See Commonwealth’s Ex. #1. Nonetheless, the Court must determine not only that the expert is qualified but also that the science upon which she testifies is reliable. *Farley v. Commonwealth, supra*. If there were a debate in the medical literature about the scientific reliability of Ms. Brown’s opinions, the Court would “admit the evidence with appropriate instructions to the jury to consider the disputed reliability of the evidence in determining its credibility and weight.” *Spencer IV*, 240 Va. at 97-8. The Court concludes that because there is no support in the medical literature for Ms. Brown’s opinions about the “human sexual response” as it relates to genital injury, there is not “a sufficient foundation to warrant admission of the evidence.” Id. at 97.

Accordingly, the defendant’s motion *in limine* will be granted. Ms. Brown will be prohibited from testifying at trial about the “human sexual response.” Ms. Brown will not be permitted to offer any opinion to the effect that the presence of genital injuries observable by gross visualization indicates

---

<sup>17</sup> D. Paul, “Medico-Legal Examination of the Living” in Taylor’s Principles and Practice of Medical Jurisprudence (1984) at 76.

<sup>18</sup> Id.

<sup>19</sup> Id. At 80 (emphasis in original).

Mr. Kersey  
Mr. Connell  
Mr. Estes  
*Commonwealth v. Johnston*, Crim. #98321  
November 1, 2000  
Page 9

that the “human sexual response” was not triggered in the complaining witnesses. Ms. Brown will be permitted to testify about any injuries that she observed in the women. Similarly, she will be permitted to testify that any genital injuries she observed are consistent with penetration or sexual intercourse.

An order will be entered reflecting the ruling contained in this letter.

Sincerely,

A handwritten signature in black ink that reads "Jane Marum Roush". The signature is written in a cursive style with a large, looping initial "J".

Jane Marum Roush