

NO. COA97-1078

NORTH CAROLINA COURT OF APPEALS

Filed: 16 June 1998

STATE OF NORTH CAROLINA

v.

BOSWELL DENNIS,  
Defendant

Appeal by defendant from judgment entered 22 November 1996 by Judge Abraham P. Jones in Wake County Superior Court. Heard in the Court of Appeals 12 May 1998.

*Attorney General Michael F. Easley, by Assistant Attorney General Sue Y. Little and Special Deputy Attorney General Ellen B. Scouten, for the State.*

*John F. Oates, Jr., for defendant appellant.*

HORTON, Judge.

The State's evidence tended to show that during the early morning hours of 17 February 1996, the victim, who was 12 years old at the time, was babysitting at Dawn Gill's apartment in Raleigh. Gill, who was the victim's godmother and defendant's sister, was working the late shift at a grocery store. After putting Gill's children to bed, the victim went to sleep in Gill's bedroom. A short time later, the victim heard a knock at the door. Defendant then entered the apartment with another man and a woman. Defendant asked the victim to stay in the children's bedroom while he and his friends were there. After defendant and his friends left the

apartment, the victim went back into Gill's bedroom to sleep.

Approximately 15 minutes later, defendant returned to the apartment. Defendant went into the kitchen for a few minutes, and then went into Gill's bedroom where the victim had been sleeping. He watched television for a few minutes and then pulled the victim close to him, "feeling on [her] and stuff[.]" Defendant pulled the victim on top of him and asked, "[H]ow does it feel . . . does it feel good[?]" Defendant felt the victim's chest, and then pinned her down and started to remove her boxer shorts. He put his fingers in her vagina, and then put his mouth on her vagina and began licking her body. The victim did not scream for help because she was afraid defendant would hurt her. She asked defendant to leave, and he thereafter zipped up his pants, fastened his belt and left the bedroom. He offered the victim money and told her to keep the incident between the two of them. When defendant left the apartment, the victim called her mother, who came to the apartment and called the police.

The victim was later taken to a hospital, where she was examined by Paula Bost, a registered nurse, and Dr. Karen Albriton, who gathered evidence for a sexual assault kit. Dr. Albriton testified that after conducting a complete physical examination of the victim, she observed the victim had superficial abrasions above the vaginal opening and skin tears, one of which was bleeding slightly. Susan Barker, a forensic serologist, testified that her analysis of the vaginal swabs from the sexual assault kit indicated the presence of saliva.

Defendant was charged with one count of first degree burglary, one count of taking indecent liberties with a minor, and two counts of first degree sexual offense. The jury found defendant guilty of one count of taking indecent liberties with a minor and two counts of first degree sexual offense. The jury was unable to reach a verdict on the first degree burglary charge, and the court declared a mistrial as to that charge. The State then filed a voluntary dismissal of that charge. The trial court, after consolidating the convictions for judgment, sentenced defendant to a minimum of 269 months' and a maximum of 333 months' imprisonment.

On appeal, defendant first contends the trial court abused its discretion by denying his motion for a mistrial on the ground that members of the jury observed him in handcuffs and in the custody of the Sheriff. Specifically, defendant claims the jurors saw him in handcuffs while he was being transported from the jail to the courtroom by the Sheriff's deputies on the morning of the second day of trial.

In the instant case, after defendant moved for a mistrial, the trial court questioned, out of the jury's presence, defendant's sister and Sergeant Wayne Williams of the Wake County Sheriff's Department. Sergeant Williams testified that, when he brought defendant from the jail to the courtroom on the day in question, defendant

was handcuffed in front. He had a shirt, some type of garment, over his cuffs, over his wrists. He also, I think he had a notebook or something in his hand, and I preceded him and walked through the lobby. We weren't in the

lobby I would say no more than about 10 seconds at the most. He didn't have any leg irons or anything on. We just walked through.

In response to the trial court's inquiry of whether defendant's wrists were exposed so that anyone could see that he was handcuffed, Williams responded, "Not to my knowledge because that was one of the things that I noticed before we even started, that he had a garment over his wrists where he was cuffed in front, and to my knowledge the cuffs were not exposed."

After calling the jurors back into the courtroom, the trial court addressed the jurors as follows:

I need to know from all of you individually whether there is anything that's occurred since this trial began, either you've seen, heard or that's been done, that would cause you to be prejudiced against the defendant, if there's anything at all. If there's anything at all that you can think of, please raise your hand. All right. Thank you.

Let the record reflect that no one raised -- no juror raised [sic] their hand in response to the Court's question.

The trial court then made the following findings:

The Court finds that the incident that occurred, although unfortunate, was -- did not constitute substantial prejudice to the defendant, substantial and actual prejudice to the defendant, and therefore based on two things, one that defendant's hands were apparently covered so that it would have been difficult for a person to see that he was secured or cuffed; secondly, and most importantly, upon inquiry of the jury as to whether they had seen anything, without giving them an idea of what the Court was looking for, no juror responded positively that they had seen or heard, or observed or seen anything done that would prejudice them

against the defendant, those answers consistent with the answers that they have given during the voir dire process.

Defendant argues to this Court that he did not receive a fair trial because his wearing the handcuffs in front of the jurors predisposed them to believe he was guilty of the offenses with which he was charged and because the trial court's inquiry of the jurors failed to correct any prejudicial impression the jurors may have received by viewing defendant in the handcuffs and in custody.

N.C. Gen. Stat. § 15A-1061 (1997) states that a trial court "must declare a mistrial upon the defendant's motion if there occurs during the trial an error or legal defect in the proceedings, or conduct inside or outside the courtroom, resulting in substantial and irreparable prejudice to the defendant's case." "A mistrial should be granted only when there are improprieties in the trial so serious that they substantially and irreparably prejudice the defendant's case and make it impossible for the defendant to receive a fair and impartial verdict.'" *State v. Bonney*, 329 N.C. 61, 73, 405 S.E.2d 145, 152 (1991) (quoting *State v. Warren*, 327 N.C. 364, 376, 395 S.E.2d 116, 123 (1990)). The decision to grant or deny a mistrial rests within the discretion of the trial court and will not be disturbed on appeal absent a clear showing that the trial court abused its discretion. *Id.* at 73, 405 S.E.2d at 152.

It is well-settled that the trial court's findings are conclusive on appeal if supported by competent evidence. *State v. Fernandez*, 346 N.C. 1, 11, 484 S.E.2d 350, 357 (1997). After

reviewing the record in the instant case, we conclude that competent evidence exists to support the trial court's finding that defendant was not prejudiced by being transported from the jail to the courtroom in front of jurors while wearing handcuffs. There is no indication in the record that the jurors actually saw the handcuffs on defendant; on the contrary, the evidence shows that defendant's wrists were covered by a garment. Even if the jurors had seen defendant's handcuffs, we would still conclude defendant suffered no prejudice. In *State v. Perry*, 316 N.C. 87, 340 S.E.2d 450 (1986), our Supreme Court addressed the propriety of the trial court's denial of a defendant's motion for a mistrial under circumstances similar to those presented in the instant case. In *Perry*, defendant was handcuffed as he was transported to and from the jail during the course of his trial. *Id.* at 109, 340 S.E.2d at 463. There was evidence that a juror had seen defendant handcuffed, and that other jurors may have seen defendant in the custody of an officer. *Id.* Defendant thereafter moved for a mistrial, and the trial court conducted a hearing and found no prejudice to defendant. *Id.* The trial court advised defendant that he would be willing to inquire of the jurors if they saw anything amiss, but defendant indicated he desired no further inquiry. *Id.*

On appeal, the Supreme Court noted

the general rule is that a defendant is entitled to appear in court free from all bonds and shackles. However, this rule is subject to the exception that a trial judge, in the exercise of his sound discretion, may

require an accused to be shackled when it is necessary to prevent escape, to protect others in the courtroom, or to maintain an orderly trial.

*Id.* at 108, 340 S.E.2d at 463. The Court concluded that the trial court properly denied defendant's motion for a mistrial, since defendant "was not shackled during the course of the trial but was routinely handcuffed when carried to and from the jail." *Id.* at 109, 340 S.E.2d at 463.

Similarly, in the instant case, defendant was not handcuffed during the course of his trial but was routinely handcuffed for the purpose of being transported from the jail to the courtroom. After defendant moved for a mistrial, the trial court conducted a hearing to determine if defendant suffered any prejudice by being transported from the jail to the courtroom in front of jurors while wearing handcuffs. The trial court then went further than the trial court in *Perry* and inquired of the jurors whether they had seen anything since the trial began that would cause them to be prejudiced against defendant; no juror responded positively to this inquiry. It is evident that the trial court fashioned its inquiry so as not to draw attention to the fact that defendant had been handcuffed in the lobby, and defendant did not object to such inquiry. We therefore conclude that defendant suffered no prejudice by wearing the handcuffs in the lobby, and that the trial court did not abuse its discretion by denying defendant's motion for a mistrial.

Defendant next contends the trial court erred by allowing

Susan Barker, a forensic serologist with the North Carolina State Bureau of Investigation crime lab, to testify regarding the results of a test indicating the presence of saliva on the vaginal swabs taken from the victim's sexual assault kit. Barker testified that the test, employing the "Phadebas methodology," is used to detect the presence of amylase, an enzyme found in saliva. The test involves the use of a tablet containing an insoluble starch attached to a dye. A liquid and the tablet are mixed with the material being tested and all three are incubated at a warm temperature. If amylase is present, the starch is broken down and blue dye is released. If no amylase is present, the starch is not broken down and the dye is not released. While the results of the test can be read with the eye, an instrument known as a spectrophotometer is used to measure the amount of the dye released. Though amylase is also found in other fluids such as blood and semen, the concentration of amylase in saliva is much greater than that found in other fluids. Barker explained to the jury why the "Phadebas methodology" is not one hundred percent accurate:

With saliva, there's no one thing in saliva that's not found anywhere else. [A]mylase is an enzyme found in very high concentrations in saliva. So we were able to say that this gives an indication for the presence of saliva, but we have to word it that way since there's no one test for something that's strictly just saliva.

However, Barker also testified that the test is one hundred percent accurate for detecting the presence of amylase, and that the test

is commonly used by serologists to detect the presence of saliva.

Defendant argues that the admission of the test results was prejudicial to him in that the test is unreliable and speculative since it cannot positively determine the presence of saliva, or if saliva is present, whose saliva it is. Defendant further argues the State failed to present evidence showing that the test is considered reliable or generally accepted in the scientific community. Defendant also claims that, because the probative value of the test results was greatly outweighed by its prejudicial effect, the trial court should have excluded the test results pursuant to N.C. Gen. Stat. § 8C-1, Rule 403 (1992). In the alternative, defendant claims the use of the test results should have been limited by the trial court for corroborative purposes.

The issue of whether the results of the "Phadebas methodology" are sufficiently reliable to be admitted at trial appears to be one of first impression in this jurisdiction. According to N.C. Gen. Stat. § 8C-1, Rule 402 (1992), "[a]ll relevant evidence is admissible," and "[e]vidence which is not relevant is not admissible." Evidence is relevant if it has "any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." N.C. Gen. Stat. § 8C-1, Rule 401 (1992). The admissibility of expert testimony is governed by N.C. Gen. Stat. § 8C-1, Rule 702(a) (Cum. Supp. 1997), which provides that "[i]f scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to

determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion."

Thus, when expert testimony is sought to be introduced at trial, the trial court must determine whether the expert proposes to testify to scientific, technical, or other specialized knowledge that will assist the trier of fact. "[T]his requires a preliminary assessment of whether the reasoning or methodology underlying the testimony is sufficiently valid and whether that reasoning or methodology can be properly applied to the facts in issue." *State v. Goode*, 341 N.C. 513, 527, 461 S.E.2d 631, 639 (1995); see also *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 125 L. Ed. 2d 469 (1993).

"A new scientific method of proof is admissible at trial if the method is sufficiently reliable." *State v. Pennington*, 327 N.C. 89, 98, 393 S.E.2d 847, 852 (1990). "Reliability of a scientific procedure is usually established by expert testimony, and the acceptance of experts within the field is one index, though not the exclusive index, of reliability." *Id.* The courts of our jurisdiction rely on the following indices of reliability: "the expert's use of established techniques, the expert's professional background in the field, the use of visual aids before the jury so that the jury is not asked 'to sacrifice its independence by accepting [the] scientific hypotheses on faith,' and independent research conducted by the expert." *Id.* at 98, 393 S.E.2d at 853 (quoting *State v. Bullard*, 312 N.C. 129, 150-51, 322 S.E.2d 370,

382 (1984)).

In the instant case, both defendant and the State agree that Barker qualified as an expert in the field of forensic serology. Barker testified that she received a Bachelor of Science from Northern Illinois University, that she was a board certified member of the Medical Technology Association, and that she attended graduate level molecular genetics classes at North Carolina State University, in addition to other workshops and meetings in her field. She also testified that she had been assigned by the State Bureau of Investigation to work on approximately 120 to 140 cases, not including the 50 to 70 cases she worked on as an intern.

After reviewing the record, we conclude the trial court did not err by allowing Barker to testify regarding the results of the "Phadebas methodology." Barker's testimony that the test is commonly used by serologists to detect the presence of saliva was uncontradicted by defendant. Barker explained in a clear and concise manner how the test is performed. While she did not employ visual aids to assist the jury in comprehending the test, visual aids were unnecessary in light of the fact that the test involves little discretion or room for error in determining the presence of amylase. If amylase is present, blue dye is released; if no amylase is present, no dye is released. Barker stated that the concentration of amylase in saliva is much greater than that found in other fluids, and that she had found no fluid other than saliva tested positive for the presence of amylase. Thus, the jury was not required to "sacrifice its independence by accepting [the]

scientific hypotheses on faith[]” as in a case involving a more complicated test. *Bullard*, 312 N.C. at 151, 322 S.E.2d at 382.

Further, Barker testified only that the results of the test indicated the presence of saliva on the vaginal swab taken from the victim's vagina, and not that saliva was present on the swab or that the saliva came from a particular person. We nevertheless believe her testimony regarding the test results was relevant to the issue of whether defendant committed a first degree sexual offense against the victim. See *Goode*, 341 N.C. at 538, 461 S.E.2d at 645 (stating that the fact that the State could not show the source or type of a microscopic quantity of blood on defendant's boot went to the weight of the evidence and not its admissibility). “An individual piece of evidence need not conclusively establish a fact to be of some probative value. It need only support a logical inference of the fact's existence.” *Id.* at 537, 461 S.E.2d at 645 (quoting *State v. Payne*, 328 N.C. 377, 401, 402 S.E.2d 582, 596 (1991), *cert. denied*, 514 U.S. 1038, 131 L. Ed. 2d 292 (1995)). For these reasons, we agree with the trial court that Barker's testimony established the reliability of the “Phadebas methodology” and was therefore properly admissible. We observe that other jurisdictions have also found such evidence to be properly admissible. See *State v. Zola*, 548 A.2d 1022 (N.J. 1988), *cert. denied*, 489 U.S. 1022, 103 L. Ed. 2d 205 (1989), *superseded by statute on other grounds as stated in State v. Delibero*, 692 A.2d 981 (N.J. 1997); see also *State v. Moralevitz*, 433 N.E.2d 1280 (Ohio Ct. App. 1980); A. E. Kipps and P. H. Whitehead, *The*

*Significance of Amylase in Forensic Investigations of Body Fluids*, 6 Forensic Science 137, 137 (1975) ("The presence of a high amylase activity in a human body fluid has for a long time been taken as indicative of saliva, and has provided a valuable screening test for saliva stains during forensic investigations[]").

With respect to defendant's argument that the trial court should have excluded the results of the test pursuant to N.C. Gen. Stat. § 8C-1, Rule 403, we note that the decision to admit evidence subsequent to a Rule 403 analysis rests within the discretion of the trial court, and the ruling will not be disturbed absent a showing of an abuse of discretion. *Goode*, 341 N.C. at 538, 461 S.E.2d at 646. As mentioned previously, in the instant case, Barker testified only that the results of the test indicated the presence of saliva on the vaginal swab taken from the victim's vagina, and not that saliva was present on the swab or that the saliva came from a particular person. Thus, this testimony served to corroborate other evidence, including the victim's testimony, which tended to show that defendant committed a first degree sexual offense against the victim. We also observe that defendant failed to request a limiting instruction with respect to Barker's testimony. We therefore conclude that the trial court did not abuse its discretion by admitting Barker's testimony regarding the results of the "Phadebas methodology."

For the foregoing reasons, we conclude defendant received a fair trial, free from prejudicial error.

No error.

Chief Judge EAGLES and Judge WALKER concur.