

IN THE COURT OF CRIMINAL APPEALS OF TENNESSEE  
AT NASHVILLE  
April 9, 2024 Session

**FILED**  
06/05/2024  
Clerk of the  
Appellate Courts

**STATE OF TENNESSEE v. ALYSHA J. BARR**

**Appeal from the Circuit Court for Rutherford County  
No. 81260 James A. Turner, Judge**

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**No. M2023-00581-CCA-R3-CD**

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The Appellant, Alysha J. Barr, was convicted of vehicular assault, driving under the influence (“DUI”), and reckless endangerment with a deadly weapon. On appeal, she argues that the trial court erred by denying her motion to suppress evidence resulting from a blood draw at the scene of the collision because: (1) it was obtained pursuant to an unconstitutional search; and (2) she did not sign the waiver form as statutorily required at the time of the offense. Tenn. Code Ann. § 55-10-406 (2017) (amended 2019). She also argues that the trial court erred by admitting expert testimony based on an untrustworthy experiment. After review, we conclude that no reversible error occurred and affirm the trial court’s judgments.

**Tenn. R. App. P. 3 Appeal as of Right; Judgments of the Circuit Court Affirmed**

CAMILLE R. MCMULLEN, P.J., delivered the opinion of the court, in which JILL BARTEE AYERS, and MATTHEW J. WILSON, JJ., joined.

W. Scott Kimberly, Murfreesboro, Tennessee (at trial and on appeal) and A. Chase Doscher, Murfreesboro, Tennessee (at trial) for the appellant, Alysha J. Barr.

Jonathan Skrmetti, Attorney General and Reporter; Caroline Weldon, Assistant Attorney General; Jennings H. Jones, District Attorney General; and Brent Pierce and Ashley Chisum-Hall, Assistant District Attorneys General, for the appellee, State of Tennessee.

**OPINION**

This case stems from a car collision caused by the Appellant on the night of June 24, 2018. Though traffic on the interstate was stopped due to construction, the Appellant failed to stop her car as she approached. She collided with a car driven by Tonia Mellon,

the victim, which caused the victim's car to collide with the car in front of it and veer into a tree. The victim suffered two broken collarbones. The Appellant verbally consented to a blood draw at the scene. Testing of the blood sample revealed a blood alcohol level of .161. After the Appellant was transported to the hospital, her blood was drawn and tested for medical treatment. Her medical records revealed a blood alcohol level of .151. The Appellant was charged with vehicular assault, DUI, DUI per se, and reckless endangerment with a deadly weapon.

**Motion to Suppress.** Before trial, the Appellant filed a motion to suppress evidence resulting from the blood draw at the scene. In the motion, she argued that the blood draw was an unconstitutional search because the officer did not obtain a warrant and her consent was not voluntary. She also emphasized that she did not sign the waiver form as statutorily required at the time of the offense. See Tenn. Code Ann. § 55-10-406 (2017) (amended 2019). The trial court conducted a hearing on November 24, 2021, and denied the motion.

At the hearing, the recording of the blood draw was admitted into evidence. The recording was created by a camera in Trooper Christopher Burrell's car and a microphone on his person. The majority of the events relevant to the suppression issue occurred in the ambulance, and therefore can be heard but not seen. The audio reflects that Trooper Burrell asked what happened, and the Appellant responded, "Honestly, I just remember hitting my brakes. That's all I remember. I don't remember anything else. Honestly." When Trooper Burrell asked where she was coming from, the Appellant responded, "Coming from . . . I'm a little disoriented right now. Coming from . . . Nashville. I think." She initially denied consuming alcohol. After Trooper Burrell conducted the horizontal gaze nystagmus ("HGN") test, the Appellant admitted she consumed alcohol earlier in the day at around 12:00 p.m. Trooper Burrell told her that she will "more than likely" be charged with DUI. Trooper Burrell exited the ambulance. Shortly after, he returned and asked for consent for a blood draw, "just for the fact that alcohol was involved in the crash." The Appellant responded, "That's fine." Trooper Burrell exited the ambulance. When he returned, the Appellant was speaking to someone on the phone. She said, "They're taking my blood right now." The recording ended at 12:06 a.m., though the encounter continued.<sup>1</sup> The recording does not contain a discussion of a waiver form.

Emergency Medical Technician Roberto Perez testified that the Appellant verbally consented to the blood draw. Prior to drawing her blood, Mr. Perez confirmed she was giving consent. While Mr. Perez drew her blood, the Appellant was speaking to someone on her cell phone. After the blood draw, Trooper Burrell explained the waiver form in

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<sup>1</sup> Based on the State's failure to preserve the remainder of the recording, defense counsel filed, and the trial court granted, a motion for a curative instruction pursuant to State v. Ferguson, 2 S.W.3d 912 (Tenn. 1999).

detail. He “had [Mr. Perez] sign the [waiver] form” because the Appellant’s hand was injured. The waiver form was admitted into evidence. On the line entitled “Subject’s Signature, Date, and Time of Signature” was the word “Verbal,” followed by Mr. Perez’s signature and 12:03 a.m. Mr. Perez said he reviewed the recording and at the point it ended, he had already drawn the Appellant’s blood.

Trooper Burrell testified and provided a different timeline of events. He said when the recording ended, Mr. Perez had not yet drawn the Appellant’s blood. After the Appellant verbally consented to the blood draw, she spoke to someone on the phone. The person told her not to allow the blood draw, and she said it was too late because she had already consented. After the recording ended, which the record shows was at 12:06 a.m., the phone call ended and Trooper Burrell reviewed the waiver form with the Appellant. Mr. Perez then drew the Appellant’s blood. Trooper Burrell acknowledged that he wrote 12:03 a.m. on the waiver form next to Mr. Perez’s signature, but did not remember if that was the time the Appellant originally provided consent or the time the form was signed. When the Appellant consented, only Trooper Burrell and the medical personnel were in the ambulance.

Trooper Burrell also provided additional details about his encounter with the Appellant. When he arrived at the scene, the Appellant was in the middle of the road holding a dog. She was concerned about the dog, so Trooper Burrell gave her a leash. He did not remember the Appellant saying she was disoriented. The Appellant had a laceration, but she was walking around the scene and did not appear to be in need of immediate medical attention. The alcohol influence report was admitted into evidence. The report reflected that the Appellant had been injured and was medically unable to perform two of the field sobriety tests. The only field sobriety test Trooper Burrell could conduct while the Appellant was lying down on a gurney was the HGN test, during which he observed six signs of intoxication. He acknowledged that he also observed resting nystagmus, which could be indicative of a head injury. On redirect examination, however, he said that he did not observe resting nystagmus. He testified at a prior hearing that he checked that box on the form in error.

The Appellant’s medical records were admitted into evidence. The State highlighted that the records showed the Appellant had a two centimeter laceration on her right hand. The State also noted the lack of a head injury, pointing to comments such as, “The [Appellant] ha[d] a normal mental status and [was] neurologically intact.” The Appellant highlighted that the records showed she reported amnesia and loss of consciousness.

At the conclusion of the hearing, the trial court ruled that the Appellant voluntarily consented to the blood draw and denied the motion. The Appellant requested a specific

ruling on whether Trooper Burrell complied with the signature requirement in Tennessee Code Annotated section 55-10-406. The court responded:

Well, there's proof in here that she had a hand injury, that she couldn't sign it. And I think that's testimony that's supported by the medical records. She couldn't sign it. I don't think she was physically able to. I don't have any reason to doubt that, if that satisfies your request. But I'll issue my written ruling.

In its written ruling, the court credited both Trooper Burrell's testimony and Mr. Perez's testimony. The court found that before the blood draw, Trooper Burrell explained the waiver form in detail and had Mr. Perez sign the form for the Appellant because of her hand injury. The court found that the 12:03 a.m. time stamp on the waiver form indicated the time that Mr. Perez signed it, and that the alcohol influence report showed that the Appellant's blood was collected at 12:05 a.m. In evaluating the circumstances of the encounter, the court noted that it occurred in the back of an ambulance at around midnight, only one officer was involved, and he did not display his weapon. There was no apparent hostility. Trooper Burrell requested the Appellant's consent, which she immediately provided. In evaluating the characteristics of the Appellant, the court noted that she was twenty-nine-years old, sounded "mature," and "[appeared] to understand why [Trooper] Burrell [wanted] to draw her blood[.]" Though the Appellant's "appearance [did] indicate injuries and disorientation," there was no proof that her injuries rendered her unable to consent. The written ruling did not reference Tennessee Code Annotated section 55-10-406.

**Motion to Redact Medical Records.** Relatedly, the Appellant filed a pretrial motion to redact the results of the blood alcohol test conducted at the hospital from the Appellant's medical records. She argued that under Rule 403, "the danger of confusing the jury by providing results of blood alcohol testing without any information as to the collection, storage, testing, or reporting of that blood" outweighed any probative value. See Tenn. R. Evid. 403. The trial court denied the motion.

**Trial.** At trial, the Appellant was convicted as charged. Below is a summary of the evidence relevant to the issues raised in this appeal. The evidence established that traffic on the interstate was stopped due to construction. The Appellant was driving on the interstate at approximately 11:00 p.m. and failed to stop her car as she approached the stopped traffic. Her car collided with the victim's car, causing the victim's car to collide with the car in front of it and veer into a tree. As a result of the collision, the victim broke both of her collarbones.

Mr. Perez testified that he treated the Appellant at the scene and was asked to do a blood draw. After wiping the site of the blood draw with alcohol, he drew the Appellant's blood. He provided the blood samples to Trooper Burrell and transported the Appellant to the hospital. On cross-examination, he said the Appellant told him she had a glass of wine at 12:00 p.m. and at 3:00 p.m.

Trooper Burrell testified that he responded to the scene. The Appellant smelled of alcohol and was a little unsteady. Her eyes were "kind of glazed over and watery and red." She initially denied consuming alcohol, but later admitted to consuming alcohol several hours prior. She consented to a blood draw, which Mr. Perez performed. Trooper Burrell filled out an alcohol influence report, and marked the resting nystagmus box in error. The Appellant was transported to the hospital. When Trooper Burrell left the scene, he went to the hospital and advised the Appellant she was being charged with DUI. The Appellant became angry and began to "cuss at [him]."

On cross-examination, Trooper Burrell acknowledged that he previously testified that he did not initially smell alcohol on the Appellant and that the Appellant's speech was slurred. He also acknowledged that the Appellant was wearing wedge heels the night of the collision. He said he conducted an HGN test while the Appellant was lying down in the ambulance. He believed the manner in which he conducted the test was consistent with his training. He acknowledged that he completed an alcohol influence report and indicated that the Appellant's clothing was disarranged, her demeanor was angry and uncooperative, her walk was staggering, and her speech was slurred. On redirect examination, the recording of the encounter was admitted into evidence.

The Appellant's medical records were admitted into evidence and reflected that the hospital conducted a plasma/serum alcohol test, the result of which was 151 H. Tennessee Bureau of Investigation ("TBI") Agent Melissa Klingaman, an expert in forensic toxicology, testified that a plasma/serum alcohol test result of 151 H was equivalent to a blood alcohol level of .151.

Agent Klingaman also testified that she tested the blood sample collected at the scene and determined that the Appellant's blood alcohol level was .161. The State asked whether using an alcohol swab to prepare the site would affect the blood alcohol level of the blood obtained. Agent Klingaman responded:

To my knowledge, no. There has been a study performed at our lab in the past where we had someone working at the lab who was able to draw blood. Ethanol was allowed to pool at the site where blood was going to be drawn from. The blood was drawn. And to my knowledge, there was no detectable ethanol in the sample or samples. This was done on multiple individuals.

On cross-examination, defense counsel questioned Agent Klingaman using a learned treatise, Garriott's Medicolegal Aspects of Alcohol. Agent Klingaman acknowledged that she was familiar with the treatise and that it was used in her TBI training. She acknowledged that the treatise said an increase in the concentration of alcohol is invariably associated with contamination of the specimen. She emphasized, however, that the treatise did not indicate "how low they are looking to detect any ethanol that's present." In the TBI experiment, they did not find ethanol to be present at their lowest limit of detection. The experiment was conducted to determine whether having ethanol present at the site of a blood draw could cause a positive ethanol result. To her knowledge, the results were not published.

The State requested a bench conference, during which defense counsel made a Rule 703 motion to exclude Agent Klingaman's testimony about the experiment. He said she testified that "[s]he and her friends" conducted their own experiment "with no known variables, no studies, [and] no research." The court noted that the experiment could be admissible if a proper foundation was laid, though "there wasn't much of a foundation laid" thus far. Outside of the presence of the jury, both parties questioned Agent Klingaman. She testified that the experiment was performed before she worked at the TBI. A group of forensic toxicologists put ethanol on their skin and drew blood. She was not sure if the amounts of ethanol varied. They then analyzed the blood to determine if ethanol would be detected. She learned about the experiment through her TBI training. She was not aware of any peer review of the experiment results. She was not sure whether the experiment was conducted independent of any litigation. Defense counsel requested a mistrial, or alternatively, the disqualification of Agent Klingaman as an expert and a jury instruction to disregard her testimony. After arguments by both parties, the trial court said it would provide a ruling the next morning.

The trial court denied defense counsel's motion, concluding that Agent Klingaman's testimony was admissible under Rule 703. The court noted that the data originated from an experiment performed by Agent Klingaman's colleagues, in the same controlled lab setting that the Appellant's blood sample was tested. Agent Klingaman did not participate in the experiment, but she received training associated with it. Though the results of the experiment were not published, the underlying data did not indicate a lack of trustworthiness.

Defense counsel resumed cross-examination of Agent Klingaman. When asked about the experiment's methodology, Agent Klingaman said she did not have any written documentation of the study. Though data would have been generated, she had not reviewed it. She did not know how many people participated in the experiment, but estimated that it was "a handful of scientists." She did not know how much alcohol was placed on the

participants' skin, or if the amounts were measured. She learned about the experiment through a conversation with another forensic toxicologist during her training. She acknowledged that the experiment determined that an alcohol swab would not result in a positive result for alcohol, but did not evaluate whether an alcohol swab could increase the level of alcohol in blood that already contained alcohol. She also acknowledged that the treatise warned against using alcohol swabs prior to a blood draw because of the danger of contamination. On redirect examination, Agent Klingaman said if someone had one drink at noon and one drink at 3:00 p.m., she would not expect to see any alcohol in their blood at midnight.

Anthony Palacios, an expert in DUI detection and enforcement, testified for the defense that the validity of the HGN test results in this case was compromised because the test was conducted in a non-standardized manner. First, standardized procedure directs officers not to proceed with an HGN test if they observe resting nystagmus because it suggests a possible head injury. Accordingly, the HGN test should not have been administered in this case. Even if the resting nystagmus box was checked in error, standardized procedure requires that the suspect be standing. He acknowledged, however, that a national expert in HGN tests conducted a study and determined that the test can be completed if the suspect is lying down so long as the suspect is low enough to the ground that the officer can stand directly over the suspect, "nose-to-nose" and "eyes-to-eyes." He also testified that he reviewed the recording and saw no support for Trooper Burrell's claims that the Appellant's clothing was disarranged, her demeanor was angry and uncooperative, her walk was staggering, and her speech was slurred. On cross-examination, he acknowledged that Trooper Burrell observed six out of six clues during the HGN test, which would suggest a blood alcohol level of .16 or higher. The defense recalled Trooper Burrell, who maintained that he conducted the HGN test in a standardized manner because he did not observe resting nystagmus, the bed was low, and he was standing over the Appellant.

The jury convicted the Appellant as charged of vehicular assault, DUI, DUI per se, and reckless endangerment with a deadly weapon. The trial court merged the two DUI convictions and imposed an effective sentence of seventy-five days' incarceration followed by three years' supervised probation. The Appellant filed a motion for new trial, which the trial court denied "rely[ing] upon its prior rulings on each of the issues[.]" This timely appeal followed.

## ANALYSIS

I. **Motion to Suppress.** The Appellant argues that the trial court erred by denying the motion to suppress the blood alcohol content of her blood obtained at the scene because it was obtained in violation of (1) the United States and Tennessee constitutions; and (2)

Tennessee Code Annotated section 55-10-406. We conclude that the trial court erred because the Appellant's blood was obtained in violation of section 55-10-406. This error, however, is harmless because the results of the second blood draw conducted for medical treatment were also admitted at trial.

Suppression issues present mixed questions of law and fact. State v. Garcia, 123 S.W.3d 335, 342 (Tenn. 2003). “[A] trial court’s findings of fact in a suppression hearing will be upheld unless the evidence preponderates otherwise.” State v. Odom, 928 S.W.2d 18, 23 (Tenn. 1996). The trial court’s application of law to the facts, however, is reviewed de novo with no presumption of correctness. State v. Echols, 382 S.W.3d 266, 277 (Tenn. 2012) (citing State v. Walton, 41 S.W.3d 75, 81 (Tenn. 2001)). When evaluating a trial court’s ruling on a motion to suppress, appellate courts may consider the proof offered at the suppression hearing and at trial. State v. Williamson, 368 S.W.3d 468, 473 (Tenn. 2012) (citing State v. Henning, 975 S.W.2d 290, 297-99 (Tenn. 1998)). The prevailing party “is entitled to the strongest legitimate view of the evidence adduced at the suppression hearing as well as all reasonable and legitimate inferences that may be drawn from that evidence.” Odom, 928 S.W.2d at 23.

**A. Constitutional Challenge.** A blood draw is a search subject to the constitutional protection against unreasonable searches and seizures. Birchfield v. North Dakota, 579 U.S. 438, 455 (2016); see also State v. Reynolds, 504 S.W.3d 283, 312 (Tenn. 2016) (“[A]rticle I, section 7 is identical in intent and purpose to the Fourth Amendment.”). Reasonableness “is measured in objective terms by examining the totality of the circumstances.” Ohio v. Robinette, 519 U.S. 33, 39 (1996). “[A] warrantless search or seizure is presumed unreasonable, and evidence discovered as a result thereof is subject to suppression, unless the State demonstrates that the search or seizure was conducted pursuant to one of the narrowly defined exceptions to the warrant requirement.” State v. Crutcher, 989 S.W.2d 295, 299-300 (Tenn. 1999) (quoting State v. Bridges, 963 S.W.2d 487, 490 (Tenn. 1997)).

The consent exception to the warrant requirement applies when a person voluntarily consents to a search. Schneckloth v. Bustamonte, 412 U.S. 218, 222-23 (1973). To be voluntary, the consent must be “the product of an essentially free and unconstrained choice.” State v. Cox, 171 S.W.3d 174, 185 (Tenn. 2005) (citing Schneckloth, 412 U.S. at 225-26). Whether consent was voluntary is a question of fact to be determined from the totality of the circumstances. Id. at 185. The totality of the circumstances includes both the circumstances of the encounter and the personal characteristics of the consenter. Id. Factors to consider related to the circumstances of the encounter include the time and place of the encounter, whether the encounter was in a public or secluded place, the number of officers involved, the degree of hostility during the incident, whether weapons were displayed, whether consent was requested, and whether the consenter initiated contact with



the police. Id. Factors to consider related to the consentor's personal characteristics include their "age, education, intelligence, knowledge, maturity, sophistication, experience, prior contact with law enforcement personnel, and prior cooperation or refusal to cooperate with law enforcement personnel." Id. The consentor's physical condition, and her knowledge of the right to refuse consent, is also relevant. State v. Henry, 539 S.W.3d 223, 242 (Tenn. Crim. App. 2017). The State bears the burden of establishing that the consent "was, in fact, freely and voluntarily given." Reynolds, 504 S.W.3d at 306 (quoting Schneckloth, 412 U.S. at 222).

The Appellant contends that the warrantless blood draw was an unconstitutional search because her consent was not voluntary. She cites this court's previous statement that a case in which a detained motorist has the capacity to voluntarily consent to a blood draw is "exceedingly rare." Henry, 539 S.W.3d at 250. She argues that at the time she consented, she "was not only detained, but she was [also] injured, exhibiting signs of possible head injury, strapped into an ambulance gurney, and actively receiving medical care[.]" She also alleges that she did not understand that she could refuse consent because, contrary to the trial court's finding, Trooper Burrell did not read the waiver form until after her blood was drawn. Prior to the blood draw, Trooper Burrell communicated only that "just for the fact that alcohol was involved in the crash, we need to get a blood draw." The State responds that the totality of the circumstances shows that the Appellant voluntarily consented. The State emphasizes that the Appellant verbally consented multiple times and there is no evidence to suggest her physical condition rendered her unable to voluntarily consent.

The blood draw was not an unreasonable search because the Appellant voluntarily consented. The circumstances of the encounter weigh in favor of the voluntariness of the consent. The encounter occurred at approximately midnight in the back of an ambulance. Only one officer, Trooper Burrell, was present. Though Trooper Burrell initiated contact with the Appellant, there was no apparent hostility and no weapons displayed. Trooper Burrell requested consent for the blood draw, which the Appellant immediately provided. Regardless of whether Trooper Burrell explained the waiver form before or after the blood draw, "knowledge of a right to refuse is not a prerequisite of a voluntary consent." Schneckloth, 412 U.S. at 234. Though the record contains minimal information about the personal characteristics of the Appellant, those provided also weigh in favor of the voluntariness of the consent. The Appellant was twenty-nine-years old, and the trial court found that she appeared to understand why Trooper Burrell wanted to draw her blood. Despite the Appellant's hand injury and report of disorientation, we agree with the trial court that those circumstances did not render her unable to consent. See State v. Evans, No. E2013-00180-CCA-R3-CD, 2014 WL 1354948, at \*10-12 (Tenn. Crim. App. Apr. 4, 2014) (concluding that defendant who had a leg injury requiring amputation and who had

been administered medication that doctors testified would have put him in a “fugue” and “confused” state voluntarily consented to a blood draw), perm. app. denied (Tenn. Sept. 19, 2014). Because the Appellant voluntarily consented, she is not entitled to relief.

**B. Statutory Challenge.** Tennessee Code Annotated section 55-10-406 governs the administration of blood and breath tests to determine alcohol or drug content. At the time of the offense, the statute provided:

(e) Upon a finding of probable cause for [DUI, vehicular assault, aggravated vehicular assault, vehicular homicide, or aggravated vehicular homicide], a law enforcement officer may administer a blood test for the purpose of determining the alcohol or drug content, or both, of that operator’s blood only:

(1) With the consent of the operator of the vehicle and after executing the waiver set out in subsection (g);

(2) With a search warrant issued in accordance with title 40, chapter 6, part 1, and Rule 41 of the Tennessee Rules of Criminal Procedure; or

(3) Without the consent of the operator of the vehicle if, on a case by case basis, one (1) or more of the recognized exigent circumstances to the search warrant requirements exist.

(f) The implied consent given by the operator of a motor vehicle pursuant to subdivision (d)(1), is not sufficient to comply with the consent required to administer a blood test pursuant to this section. Unless the operator voluntarily signs the waiver form, a properly executed search warrant or a recognized exigent circumstance is required to obtain blood from the operator.

(g) If the operator of a motor vehicle consents to the administration of a blood test to determine the alcohol or drug content of the operator's blood in the absence of a search warrant authorizing a blood test or a recognized exigent circumstance, the operator shall sign a standardized waiver developed by the department of safety and made available to law enforcement agencies that have the authority to make arrests for [DUI, vehicular assault, aggravated vehicular assault, vehicular homicide, or aggravated vehicular homicide]. If the operator cannot read the waiver for any reason, the officer shall read the waiver to the operator. If the waiver is read to the operator, no presumption of the operator’s impairment or intoxication is created and no presumption is

created that the operator understood the meaning or consequences of the form the operator signed. It is not admissible in court against the operator that the waiver was read to the operator and the operator shall have the opportunity in court to present evidence that the operator did not understand the meaning or consequences of signing the form. The operator shall sign and date the waiver and the law enforcement officer shall initial the waiver.

Tenn. Code Ann. § 55-10-406(e)-(g) (2017) (amended 2019). The statute, however, does not affect the admissibility of “any chemical analysis of the alcohol or drug content of the defendant’s blood that was not compelled by law enforcement but was obtained while the defendant was hospitalized or otherwise receiving medical care in the ordinary course of medical treatment.” Id. § 55-10-406(j).

The Appellant contends that the blood alcohol content of her blood obtained at the scene should have been suppressed because she did not sign the waiver form. She argues that though the trial court found that the Appellant was unable to sign, the statute does not contain an exception for injury. The State failed to address this independent claim, arguing only that the absence of the Appellant’s signature does not render the Appellant’s consent involuntary.

We agree with the Appellant that the trial court erred by admitting the blood alcohol content of her blood obtained at the scene. When construing a statute, we must always begin with the statute’s text. Waldschmidt v. Reassure Am. Life Ins. Co., 271 S.W.3d 173, 176 (Tenn. 2008). “When a statute’s text is clear and unambiguous, the courts need not look beyond the statute itself to ascertain its meaning.” Lee Med., Inc. v. Beecher, 312 S.W.3d 515, 527 (Tenn. 2010) (citing Green v. Green, 293 S.W.3d 493, 507 (Tenn. 2009)). At the time of the offense, section 55-10-406 clearly and unambiguously required that the Appellant sign the waiver form prior to a consensual blood draw. The statute provided three ways for a law enforcement officer with probable cause to believe the operator of a car committed the specified offenses to administer a blood test—with consent and after execution of a waiver form, with a search warrant, or in exigent circumstances. Tenn. Code Ann. § 55-10-406(e). Subsection (g) details execution of the waiver form and requires that if the operator consents to the blood test, she “shall sign a standardized waiver developed by the department of safety[.]” Id. § 55-10-406(g). Subsection (f) provides that “[u]nless the operator voluntarily signs the waiver form, a properly executed search warrant or a recognized exigent circumstance is required to obtain blood from the operator.” Id. § 55-10-406(f). Because the Appellant did not sign the waiver form, Trooper Burrell was not permitted to administer a blood test without a search warrant or exigent circumstances.

Though we recognize that in some contexts, “a signature may be made for a person by the hand of another who acts in the presence of such person at his direction, request, or

with his acquiescence,” we need not consider its applicability in this context. State v. Taylor, 653 S.W.2d 757, 759 (Tenn. Crim. App. 1983) (quoting Stoots v. State, 325 S.W.2d 532, 538 (Tenn. 1959)). Mr. Perez testified that Trooper Burrell had him sign the waiver form because the Appellant’s hand was injured. The trial court denied the motion to suppress for noncompliance with the signature requirement based on the Appellant’s physical inability to sign the form. There is no evidence, however, that the Appellant directed Mr. Perez to sign the form for her or was even aware that he had done so. Cf. State v. Nolan, No. W2014-00990-CCA-R3-CD, 2015 WL 5838739, at \*4-5 (Tenn. Crim. App. Oct. 7, 2015) (concluding that statement was signed by witness when witness was unable to sign the statement because of a hand injury and directed a secretary at the police station to sign it for him), perm. app. denied (Tenn. Feb. 18, 2016). Accordingly, Mr. Perez’s signature does not satisfy the signature requirement.

The trial court’s error, however, was harmless because the results of the second blood draw conducted for medical treatment were also admitted at trial. The erroneous admission of evidence obtained in violation of section 55-10-406 is a non-constitutional error. The Appellant therefore must demonstrate that the error “more probably than not affected the judgment or would result in prejudice to the judicial process.” State v. Rodriguez, 254 S.W.3d 361, 371-72 (Tenn. 2008) (quoting Tenn. R. App. P. 36(b)). The Appellant has not done so because her medical records, the admission of which she has not challenged in this appeal, showed a blood alcohol level of .151. Therefore, even if the results of the blood draw at the scene had been suppressed, the jury would have heard that the Appellant’s blood alcohol level was above the legal limit. See Tenn. Code Ann. § 55-10-406(j). Accordingly, the Appellant is not entitled to relief.

**II. Expert Testimony.** The Appellant next argues that the trial court erred by allowing Agent Klingaman to testify that an alcohol swab would not affect a blood alcohol level test based on an untrustworthy experiment. The State responds that the trial court did not abuse its discretion because Agent Klingaman’s testimony was within the scope of her expertise. We agree with the Appellant that the trial court abused its discretion but conclude that the error was harmless.

The admissibility of expert testimony is left to the discretion of the trial court, whose ruling we will not disturb absent an arbitrary exercise or abuse of that discretion. State v. Davidson, 509 S.W.3d 156, 208 (Tenn. 2016) (citing McDaniel v. CSX Transp., Inc., 955 S.W.2d 257, 263-64 (Tenn. 1997)).

Tennessee Rule of Evidence 703 provides guidance regarding the proper bases for expert testimony:

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence. Facts or data that are otherwise inadmissible shall not be disclosed to the jury by the proponent of the opinion or inference unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect. The court shall disallow testimony in the form of an opinion or inference if the underlying facts or data indicate lack of trustworthiness.

When assessing the reliability of expert testimony, courts should consider the following nonexclusive factors:

(1) whether scientific evidence has been tested and the methodology with which it has been tested; (2) whether the evidence has been subjected to peer review or publication; (3) whether the potential rate of error is known; (4) whether . . . the evidence is generally accepted in the scientific community; and (5) whether the expert's research in the field has been conducted independent of litigation.

Davidson, 509 S.W.3d at 208 (quoting McDaniel, 955 S.W.2d at 265). Although these factors are not requirements for admissibility, they may be considered by the trial court when weighing the reliability of expert testimony and forensic science. Id. The court "must assure itself that the opinions are based on relevant scientific methods, processes, and data, and not upon an expert's mere speculation." McDaniel, 955 S.W.2d at 265.

The trial court abused its discretion by permitting Agent Klingaman to testify that an alcohol swab would not affect a blood alcohol level test based on an experiment that lacked trustworthiness. The limited information provided about the experiment was based on a conversation Agent Klingaman had with another forensic toxicologist during her training. Agent Klingaman testified that an unknown number of TBI forensic toxicologists put ethanol on their skin, drew blood, and tested the blood to determine if an alcohol swab would result in a positive result for alcohol. She was unable, however, to provide any further information about the experiment's methodology. Agent Klingaman did not participate in the experiment, nor did she review any data from the experiment. The experiment was not peer reviewed or published, and Agent Klingaman could not identify a potential rate of error. She was unsure if the experiment was conducted independent of litigation.

Though “experts are permitted to rely on the work of others in the field,” we cannot conclude that it was reasonable for Agent Klingaman to provide an opinion based solely on an unpublished experiment not subject to peer review, when she had minimal knowledge about the experiment’s methodology and did not review any data from the experiment. See State v. Ayers, 200 S.W.3d 618, 623 (Tenn. Crim. App. 2005) (concluding it was reasonable for expert to rely on studies published in textbooks that had survived the scrutiny of peer review and were of a type reasonably relied upon by experts in forensic pathology). Such a conclusion would require an assumption that the experiment was based on relevant scientific methods, processes, and data simply because the experiment was performed at the TBI.

This error, however, was harmless because the second blood draw confirmed that the Appellant’s blood alcohol content was above the legal limit. See Rodriguez, 254 S.W.3d at 371-72 (citing Tenn. R. App. P. 36(b) (defendant must demonstrate that non-constitutional error “more probably than not affected the judgment or would result in prejudice to the judicial process”)). The erroneously admitted testimony served to dispute the defense’s theory that the blood obtained at the scene was contaminated by the alcohol swab. There was, however, no suggestion that the blood obtained at the hospital was also contaminated. Because the second, unchallenged blood draw confirmed that the Appellant’s blood alcohol level was above the legal limit, the Appellant cannot show that the testimony more probably than not affected the verdict.

### **CONCLUSION**

Based of the above reasoning and analysis, we affirm the trial court’s judgments.

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CAMILLE R. MCMULLEN, PRESIDING JUDGE