Circuit Court for Montgomery County
Criminal No. 127531

UNREPORTED

IN THE COURT OF SPECIAL APPEALS

OF MARYLAND

No. 2432

September Term, 2016

FASIL GOITOM GHEBREZGHI

v.

STATE OF MARYLAND

Wright,
Kehoe,
Battaglia, Lynne A.
(Senior Judge, Specially Assigned),

JJ.

Opinion by Kehoe, J.

Filed: March 15, 2018

A jury in the Circuit Court for Montgomery County convicted Fasil Goitom Ghebrezghi, appellant, of sexual abuse of a minor, third-degree sex offense, and incest, and acquitted him of three counts of third-degree sexual offense. He was sentenced to 25 years incarceration, with all but 12 years suspended, for sexual abuse of a minor; a concurrent five year term for incest; a consecutive ten year term, all suspended, for third-degree sex offense; as well as a four year period of supervised probation upon release. He raises the following issue on appeal, which we have rephrased slightly:

> Did the trial court err by allowing a DNA analyst to testify as an expert on likelihood ratios on the ground that she lacked the requisite qualifications?

We conclude that the trial court did not abuse its discretion in admitting the challenged testimony, and therefore affirm appellant's convictions.

Background

Because appellant does not contest the legal sufficiency of the evidence against him, our discussion of the facts will be abbreviated.

K., the victim in this case, is a minor child and a blood relative of appellant. Appellant sexually assaulted her on repeated occasions beginning around October 2014. K. testified that, by May 2015, she had decided that she needed to tell someone so that the abuse would stop, so she told her mother that she had noticed a bump on her vagina. On May 24, 2015, her mother took her to the Holy Cross Hospital emergency room, where K. disclosed to the emergency room physician that appellant was sexually abusing her. She was then transported to Shady Grove Hospital, where a nurse conducted a

sexual assault nurse examination (SANE). Pertinent to the issue raised in this appeal, the nurse collected physical evidence, including K.'s underwear and a blood sample, which was submitted to the Montgomery County Police Department Crime Laboratory.

In addition to testimony from K., her mother, the emergency room physician, the SANE nurse, and a Montgomery County Police detective, the State also presented testimony concerning the DNA recovered from K.'s underwear, as well as comparison samples collected from K. and appellant. Mary Green, a forensic scientist with the Montgomery County Police Department Crime Laboratory, testified that sperm cell fractions were identified on two locations of the underwear. She further testified that there was sufficient DNA at one location for a DNA analysis, but that the County's crime laboratory did not currently have the capability to perform a statistical analysis in circumstances where DNA contributors were believed to be related. As a result, the crime laboratory contacted Bode Cellmark, an independent laboratory, to conduct the statistical analysis.

The State called Bode Cellmark DNA analyst Vanessa Covert to testify as an expert in DNA analysis. During voir dire, Ms. Covert stated that she held a bachelor of science in biology, a master's of science in forensic science, and had been employed as a DNA analyst at Bode Cellmark for eleven and a half years. Over the course of her career, she had worked on over 3,000 cases using DNA typing techniques, and had previously testified as an expert witness in twenty cases. She also testified that she had attended 75 to 100 hours of employer-sponsored training regarding likelihood ratio

analysis, which included lectures, classes, homework assignments, and a competency test where she calculated likelihood ratios manually and using electronic software. She also testified that she attended annual conferences and lectures around the country as part of her continuing education, and that, "likelihood ratios [are] becoming more and more common here in the U.S. so it is a more frequent topic at each of those conferences." On cross-examination, she indicated that she had worked on "[p]robably between ten and 20" cases involving likelihood ratios over the course of her career, but that none of the cases where she had testified as an expert involved likelihood ratios. Subsequent to this exchange, a bench conference ensued, at which time defense counsel challenged Ms. Covert's qualifications to testify as an expert on likelihood ratios because "she is testifying to a very specific area in DNA analysis. She has worked on ten to 20 cases. She has never been qualified as an expert."

The trial court ruled that Ms. Covert was qualified to testify as an expert in DNA analysis, including likelihood ratios, noting that "she has taken 75 to 100 hours [of training] and she has gone to conferences and [] she has gone to workshops focusing on that." Defense counsel noted a continuing objection to the testimony. When trial resumed the following day, appellant's counsel objected again to the trial court qualifying the witness as an expert. After hearing argument from the State and defense counsel, the trial court explained:

> I certainly do find that based on what she testified about her education, her experience, her training, the fact that she has gone, and not just the training she did with the 75 hours but the fact that she even has focused on all of the conferences that she has gone to on the likelihood ratio[,] there does appear

> to be something that is being trained and that is being utilized more and more. So at this point, if you are objecting, I am denying or overruling your objection, and we're going forward with this particular witness.

Ms. Covert then testified as an expert witness regarding the statistical DNA analysis that she performed using the Montgomery County crime lab data, including the likelihood ratio statistics she had generated.

She explained that she was contacted by the Montgomery County crime laboratory to review the DNA sample data from the stain on K.'s underwear, as well as comparison sample data from appellant and K. After reviewing the laboratory's electronic data files and the case background, Ms. Covert determined that the underwear sample included a mixture of DNA from one male and one female contributor. Ms. Covert testified that she could not exclude appellant as a DNA contributor to the stain in the underwear. She then used a statistical software program to develop a "likelihood ratio," that is, scenarios based on the data from the mixture of DNA in the underwear and the two known individuals, to determine which scenario was more likely based on the evidence. According to Ms. Covert, the software "calculates scenario 1, which would be if you mix the two people in question, would it result in the mixture versus if you take [K.] plus unknown individual, what's the chance that it can make the mixture." Ms. Covert testified that the DNA profile obtained from the underwear sample was 15.1 trillion times more likely to be observed in the United States' African American population if it originated from K. and appellant than if it originated from K. and an unknown individual. Within the United States' Caucasian population, it was 125 trillion times more likely that the DNA profile

originated from K. and appellant than from K. and an unknown individual, and within the United States' Hispanic population, it was 344 trillion times more likely to have generated from K. and appellant than from K. and an unknown individual.

Appellant is an Ethiopian immigrant, and during cross-examination, defense counsel questioned Ms. Covert about the use of other population groups to conduct her statistical analysis. Ms. Covert explained that she only used the above-mentioned population groups, and that no statistics had been generated for African or Ethiopian populations.

Analysis

Appellant's sole assertion on appeal is that the trial court abused its discretion in permitting Ms. Covert to testify as an expert on likelihood ratios, asserting that she "was unqualified, based on her background, to give expert testimony on how to produce a likelihood ratio and what the statistics mean." Appellant does not challenge Ms. Covert's qualifications as a DNA expert generally. However, in his view, likelihood ratios are a specialized statistical method of DNA analysis and Ms. Covert lacked the knowledge and experience necessary to offer an expert opinion in this area. The State responds that, based on her education, experience, and training, the trial court was well within its discretion to conclude that Ms. Covert was qualified to provide expert testimony on likelihood ratios. We conclude that the trial court did not abuse its discretion in permitting Ms. Covert to provide expert testimony on DNA analysis, including likelihood

ratios. Our explanation as to why we reach this conclusion begins with review of the applicable legal principles. [1]

Under Maryland Rule 5-702, expert testimony "may be admitted, in the form of an opinion or otherwise, if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue." The trial court, in making this determination, considers "(1) whether the witness is qualified as an expert by knowledge, skill, experience, training, or education, (2) the appropriateness of the expert testimony on the particular subject, and (3) whether a sufficient factual basis exists to support the expert testimony." Md. Rule 5-702.

"'The decision whether to admit or exclude expert testimony is a matter within the discretion of the trial court.'" *Easter v. State*, 223 Md. App. 65, 79 (2015), *cert. denied*, 445 Md. 488 (2015) (quoting *Donati v. State*, 215 Md. App. 686, 742 (2014)). "A trial judge's decision will ordinarily be reversed only if there has been an abuse of discretion," *Massie v. State*, 349 Md. 834, 851 (1998), such as in circumstances where "'a trial judge

[1] It appears that Maryland's appellate courts have not yet addressed whether likelihood ratio analysis is a generally accepted scientific technique. *See Savage v. State*, 455 Md. 138, 159 (2017) ("Testimony based on a technique which is found to have gained 'general acceptance in the scientific community' *may* be admitted into evidence, but only if a trial judge also determines in the exercise of his discretion, as he must in all other instances of expert testimony, that the proposed testimony will be helpful to the jury, that the expert is properly qualified, etc." (emphasis in original)).

Appellant does not assert that likelihood ratio analysis would fail the *Frye-Reed* test. Nor does appellant assert that the results of the likelihood ratio analysis performed by Ms. Covert was not relevant because he is not a member of the three population groups for which likelihood ratios have been developed. His appellate contentions are focused solely upon Ms. Covert's qualifications.

exercises discretion in an arbitrary or capricious manner or when he or she acts beyond the letter or reason of the law.'" *Garg v. Garg*, 393 Md. 225, 238 (2006) (quoting *Jenkins v. State*, 375 Md. 284, 295-96 (2003)).

In *Levitas v. Christian*, 454 Md. 233, 241 (2017), the Court of Appeals considered whether the trial court erred by precluding a pediatrician, with 25 years of practice experience, from testifying as an expert witness concerning the cause and extent of the plaintiff's lead poisoning injuries. In that case, the trial court precluded the witness from testifying on the grounds that he would not have been able to explain the plaintiff's IQ test results to the jury because he did not use that particular test in his own practice. *Id.* at 242. The Court of Appeals concluded that the trial court abused its discretion in ruling that the pediatrician was not qualified, based on his "ample knowledge, training, and experience," as well as his deposition testimony that he was familiar enough with the test to know how it was generated. *Id.* at 253.

The Court in *Levitas* further explained that "an expert may be qualified to testify if he 'is reasonably familiar with the subject under investigation,'" and that his or her specialized knowledge may be gained from "'professional training, observation, actual experience, or any combination of these factors.'" *Id.* at 245 (citations omitted). The Court explained that a trial court assessing the expert-witness factors concerns itself only with whether an expert's testimony is admissible. *Id.* at 246. Moreover, "'[o]bjections attacking an expert's training, expertise or basis of knowledge go to the weight of the evidence and not its admissibility.'" *Id.* at 246 (quoting *Baltimore Gas & Elec. Co v.*

Flippo, 112 Md. App. 75, 98 (1996), *aff'd*, 348 Md. 680 (1998) (citation omitted)). The fact-finder determines how much weight to credit testimony, and is not required to accept the opinion of a qualified expert who is not credible. *Id.* at 246-47.

Appellant's primary assertion—that Ms. Covert's experience was "too paltry" to qualify her as an expert in likelihood ratios—is not reconcilable with the Court's analysis in *Levitas*. Ms. Covert testified to an extensive educational and professional background in DNA analysis, which included conducting statistical analysis in thousands of DNA cases, as well as many hours of professional training related to generating likelihood ratio statistics. The trial court, in ruling on Ms. Covert's expert qualifications, noted the growing acceptance of likelihood ratios in the field of DNA analysis, and explained that her knowledge and experience in performing general statistical analysis qualified her to testify as an expert, as "she may have only used [] the specific likelihood test in 10 to 20, but it would seem that she certainly would have the experience in using statistical analysis of data and that she would have gained in 11 years and the many, many cases that she's handled in those 11 years." We see no abuse of discretion on the part of the trial court in ruling that Ms. Covert was qualified to testify as an expert in this case.

Appellant also argues that Ms. Covert's lack of knowledge and expertise was further demonstrated because, at one point, her testimony differed from her report. In its brief, the State suggests that appellant makes much ado about almost nothing—the report stated that appellant and K. "cannot be excluded" as contributors by the DNA testing,

while Ms. Covert testified the analysis indicated that they "could be" the individuals whose DNA was recovered from K.'s undergarment.

We have reviewed the portions of the testimony in question. Ms. Covert had some difficulty in framing her answers to be responsive to the prosecutor's questions. The trial court called a brief recess and permitted the prosecutor to speak with Ms. Covert outside of the jury's presence as to how she could phrase her explanations of the statistical analysis process and results. None of this involves Ms. Covert's qualifications under Rule 5-702 as an expert witness.

THE JUDGMENTS OF THE CIRCUIT COURT FOR MONTGOMERY COUNTY ARE AFFIRMED.

COSTS TO BE PAID BY APPELLANT.