

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

B.P.J., by her next friend and mother,
HEATHER JACKSON

Plaintiff,

v.

WEST VIRGINIA STATE BOARD OF
EDUCATION, HARRISON COUNTY BOARD
OF EDUCATION, WEST VIRGINIA
SECONDARY SCHOOL ACTIVITIES
COMMISSION, W. CLAYTON BURCH in his
official capacity as State Superintendent,
DORA STUTLER in her official capacity as
Harrison County Superintendent, and THE
STATE OF WEST VIRGINIA

Defendants,

and

LAINY ARMISTEAD

Defendant-Intervenor.

Case No. 2:21-cv-00316

Hon. Joseph R. Goodwin

**REPLY MEMORANDUM IN SUPPORT OF DEFENDANT INTERVENOR AND THE STATE OF
WEST VIRGINIA'S MOTION TO EXCLUDE EXPERT TESTIMONY OF DR. DEANNA
ADKINS**

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INTRODUCTION

The West Virginia Sports Act protects separate girls' and women's athletics by limiting participation in girls' and women's teams and competitions to biological females beginning in "secondary school" which—depending on school structure—starts at sixth or seventh grade. By the end of sixth grade the average boy has begun the pubertal developmental process ("Tanner Stage 2"); by the end of seventh, the average boy is well along in that development (at "Tanner Stage 3"). App to Def.-Intervenor's Mot. for Summ. J. (App.) 791 (Adkins Dep. 152:18–153:23), ECF No. 286-1.¹ It is not disputed that by this developmental stage males have large average performance advantages over girls. *See* App. 127–37, 157–58 (Brown Rep. ¶¶ 7–41, 114–17). As a result, West Virginia's historic and now legally mandated protection of separate female athletics based on biological sex is directly and "reasonably related" to the State's strong interest in preserving fair, equal and safe athletic experiences for girls and women and in preserving female athletes' Title IX protections, thereby satisfying the requirement of intermediate scrutiny. *See United States v. Chester*, 628 F.3d 673, 683 (4th Cir. 2010); *see also* Def-Intervenor's Mem. in Supp. of Mot. for Summ. J. (Armistead's SJ Br.) 15–17, ECF No. 288.

B.P.J., through the testimony of Dr. Adkins, seeks to cast doubt on the scientific validity of the category of biological sex as defined and used by the Sports Act to define and protect girls' and women's athletics. Dr. Adkins has also proffered a number of opinions relating to the nature of, and therapeutic responses to, gender dysphoria and transgender identification. *See* Mem. in Supp. of Def-Intervenor and the State of W. Va.'s Mot. to Exclude Expert Testimony of Dr. Deanna Adkins (Defs.' Adkins Br.) 1, ECF No. 308. The State and Armistead (together, "Defendants") have moved to exclude a number of specific opinions and subject areas proffered by Dr.

¹ All citations to documents filed in this case are to the document's original or Bates stamped page number.

Adkins as irrelevant to any issue before this Court, and as lacking in the foundation of reliability required by Fed. R. Evid. 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). As reviewed below, nothing in B.P.J.’s opposition to that motion succeeds in rebutting or repairing those defects. Defendants’ motion should be granted in all respects.

ARGUMENT

I. The Court should exclude Dr. Adkins’ proffered opinion that the Act’s definition of “biological sex” is “imprecise” because her opinion is unreliable.

The Sports Act defines “biological sex” as “an individual’s physical form as a male or female based solely on the individual’s reproductive biology and genetics at birth.” W. Va. Code § 18-2-25(d)(b)(1). Male, men, boys, female, women, and girls are all defined based upon that specific definition. *Id.* § 18-2-25(d)(b)(2)–(3). Dr. Adkins has opined that the term “biological sex” is itself “imprecise.” Defendants demonstrated in their opening brief that the term “biological sex,” even standing alone, is sufficiently precise that it is widely used in scientific literature. And Dr. Adkins has not even opined that “biological sex” *as defined in the Act* is “imprecise.” Yet that is the only relevant question. For this reason, Dr. Adkins’ opinion concerning “biological sex,” and B.P.J.’s defense of that opinion, is irrelevant from the start, and should be excluded for that reason.²

The term “sex” *as defined in the Act* is precise, defined based on biologically significant and objectively measurable criteria. In truth, B.P.J. objects to the definition not because it is vague, but because it *is* precise and unambiguous. The Act’s definition categorizes male or female based on which role in sexual reproduction the body is biologically and physiologically designed to perform. Am. Psychiatric Ass’n, *Diagnostic & Statistical Manual of Mental Disorders* 829 (“DSM-5”) (5th ed.

² Contrary to B.P.J.’s claim, Defendants challenged the relevance of all aspects of Dr. Adkins testimony. Defs.’ Adkins Br. at 5.

2013). This is consistent with the Endocrine Society’s definition of “sex” in its Scientific Statement: “The classical biological definition of the 2 sexes is that females have ovaries and make larger female gametes (eggs), whereas males have testes and make smaller male gametes (sperm); the 2 gametes fertilize to form the zygote, which has the potential to become a new individual.” App. to Def.-Intervenor and the State of W. Va.’s Mots. to Exclude Expert Test. of Drs. Adkins, Fry, Janssen, and Safer (Daubert App.) 381 (Bhargava et al. (2021)), ECF No. 307-2.

This genetic sex coding directs the development of male or female gonads and other primary sexual traits, and the coded chromosome pairs “XY” or “XX” are present immediately upon conception. As the Endocrine Society puts it, “sex determination begins with the inheritance of XX or XY chromosomes, which are the only factors that are different in XX and XY zygotes. Thus, all phenotypic sex differences, including gonadal development, stem originally from the unequal effects of XX and XY sex chromosomes.” *Id.* at 381–82 (Bhargava et al. (2021)). *All* the other sex-specific male/female biological differences are “tightly linked” to genetic sex (*id.*) and “almost always aligned” (*id.* at 484 (Handelsman et al. (2018))).

In dramatic contrast to “biological sex” as defined, gender identity is subjective, defined only by reference to an individual’s “sense” of his or her gender, with “gender” in turn defined as a malleable social construct. *Id.* at 8 (Adkins Rep. ¶ 15). As Dr. Adkins testified, “[g]ender is a social construct, yes.” App. 778 (Adkins Dep. 99:7–8). Not surprisingly, given this sharp difference, the Endocrine Society cautions “*sex is not the same thing as gender and using these terms as equivalents obfuscates differences that are real and important in society in general and biomedical research in particular.*” Daubert App. 381 (Bhargava et al. (2021)) (third emphasis added). Yet B.P.J.’s defense of Dr. Adkins’ attempt to render “biological sex” imprecise repeatedly relies on exactly that obfuscation.

For example, B.P.J. quotes from Bhargava et al. (2021) to assert that “a simple biological definition of male and female, satisfactory to all people, is elusive.” Pl.’s Opp’n to Def-Intervenor and Def. State of W. Va.’s Mot. to Exclude the Expert Testimony of Dr. Deanna Adkins (Pl.’s Adkins Resp.) 7, ECF No. 351. But that statement addresses what happens when male and female are used to refer “both to a person’s biological sex and to their social roles,” not to the biological definition of sex. Daubert App. 381 (Bhargava et al. (2021)). Defining sex becomes “elusive” only when one conflates biology with social constructs, which is exactly what Dr. Adkins’ does: “every person’s sex is a multifaceted collection of sex-related characteristics, including ‘external genitalia, internal reproductive organs, *gender identity*, chromosomes, and secondary sex characteristics.” Pl.’s Adkins Resp. 5 (quoting Daubert App. 15 (Adkins Rep. ¶ 41)) (emphasis added).³

Similarly, B.P.J. insists that sex is “multifaceted,” citing the Endocrine Society’s Clinical Practice Guideline definition which explains that “sex” includes “sex-determining genes, the sex chromosomes, the H-Y antigen, the gonads, sex hormones, internal and external genitalia, and secondary sex characteristics.” Pl.’s Adkins Resp. 7. All of these are physical characteristics which the Endocrine Society has noted are “tightly linked” to genetic sex. Daubert App. 381 (Bhargava et al.

³ In distinguishing sex from gender, Bhargava et al. (2021) stated that “the United States Supreme Court separately ruled against discrimination on the basis of gender.” Daubert App. 380. But those authors misunderstood the *Bostock* decision: the Supreme Court held only that gender discrimination necessarily referred to sex and decided the case assuming that sex referred “only to biological distinctions between male and female.” *Bostock v. Clayton Cnty.*, 140 S. Ct. 1731, 1739 (2020). Notably, the Supreme Court (through Justice Ginsburg) has held it permissible to make sex-based distinctions to accommodate physical differences between the two sexes, despite the broad rejection of invidious sex discrimination. *United States v. Virginia*, 518 U.S. 515, 550 n.19 (1996). Whatever private medical interest there is in directing third parties to affirm a particular individual’s gender should not diminish that sensible constitutional precedent, which respects real differences between males and females.

(2021)). None of this helps B.P.J.’s case: unlike Dr. Adkins’ *ipse dixit*, the Guideline does *not* include “gender identity” among the factors that define sex. Instead, the Endocrine Society emphatically states just the opposite: that “sex often influences gender, but gender cannot influence sex.” Daubert App. 388 (Bhargava et al. (2021)). Similarly, the World Health Organization definition of sex that B.P.J. cites *excludes* gender identity and relies only on objective biological factors. Pl.’s Adkins Resp. 8; Daubert App. 946.

“Biological sex” is sufficiently clear on its face. As even more precisely defined by the Sports Act, the category is both objectively determinable and well aligned with the State’s objective of providing equal, fair, and safe athletic opportunities for girls and women—an objective that is concerned with physical bodies. Dr. Adkins’ attempt to cast doubt on that category as “imprecise” ignores the clear definition provided, cherry-picks the literature by ignoring the scientific literature validating that objectively determinable definition, and is unreliable. It should be excluded.

II. This Court should exclude Dr. Adkins’ proffered opinions concerning disorders of sexual development and intersex conditions because they are irrelevant.

Defendants cataloged multiple reasons why Dr. Adkins’ proffered testimony concerning disorders of sexual development is irrelevant to any issue before this court. Defs.’ Adkins Br. 8–10. B.P.J.’s only response is to assert that her testimony on this topic illustrates “that no singular sex-related characteristic determines a person’s sex.” Pl.’s Adkins Resp. 9. It does nothing of the sort, and that general proposition would be irrelevant in any event, since the Legislature did not leave “biological sex” undefined but instead provided a precise definition.

What Dr. Adkins has proffered is a largely uncited laundry list of severe but rare defects in the development of sexual organs. Daubert App. 16–19 (Adkins Rep. 48); *id.* at 41–42 (Adkins Rebuttal ¶ 12). But extremely rare physical *disorders* do not change or disprove the biological realities and categories of the healthy human

species. The rare birth of a child without legs does not negate the scientific statement that the human race is a bipedal species. The Legislature was entitled to pass legislation informed by facts describing the overwhelming majority of the population, in whom the healthy and developmentally normal binary characteristics of biological sex are “tightly aligned” in every respect.

Dr. Adkins threads a collateral argument into this, that studies involving DSDs prove that subjectively felt transgender identity is “deeply rooted.” In fact, what the studies cited by Adkins show is that even severe developmental deficiency of the external (male) genitals, coupled with radical social and medical “feminizing” interventions, usually fail to create a felt gender identity inconsistent with genetic sex. App. 319–20 (Levine Rep. ¶¶ 109–10). None of them reports any attempt to, or failure to, encourage a gender identity *aligned* with genetic sex. But more important to the present motion, Adkins identifies no scientific basis or reliable methodology to justify leaping from studies dealing with DSDs (a physical developmental defect) to transgender identity (a “sense” not associated with any physical defect at all), given that she admits that “DSDs are distinct from being transgender.” Pl.’s Adkins Resp. 10. Indeed, in her experience, there is almost no overlap at all between the two phenomena, and she herself has almost no experience with DSD patients: of her claimed 500 patients who suffered from gender dysphoria, she recalls only *two* who suffered from any sort of DSD. App. 781 (Adkins Dep. 111:7–15).

In short, Dr. Adkins and B.P.J. identify no reliable methodology that justifies drawing conclusions about transgender identity from studies of DSDs. Dr. Adkins proffered testimony concerning DSDs remains irrelevant and unreliable and should be excluded.

III. The Court should exclude Dr. Adkins’ opinion that gender identity is fixed and unchangeable because it is both unreliable and irrelevant.

Dr. Adkins has opined that a person’s gender identity is fixed and cannot be voluntarily changed. Daubert App. 9 (Adkins Rep. ¶ 18); *id.* at 41 (Adkins Rebuttal ¶ 11). That opinion is utterly irrelevant; the Sports Act does not seek to ascertain anyone’s gender identity, nor make any decision based on gender identity, much less seek to change anyone’s gender identity. Indeed, as Defendants have clearly stated, *everything* about the origin of gender dysphoria and transgender identification, and about alternative therapies for gender dysphoria, and outcomes from such therapies, is irrelevant to the simple question of the “reasonable relationship” between separation of sports by sex beginning with the secondary grades on the one hand, and the goal of providing equal, safe, and fair athletic experiences for biological women and girls on the other.

Even if it were relevant, Defendants in their opening brief highlighted both the absence of evidence for Dr. Adkins’ contentions that gender identity is fixed and unchangeable and the presence of contrary evidence that Dr. Adkins ignores. Defs.’ Adkins Br. 10–13; *see also* App. 284–325 (Levine Rep. ¶¶ 14–126) (citing extensive evidence that transgender identity is often not fixed). B.P.J. responds by materially altering Dr. Adkins’ supposed opinions, advancing a legally invalid argument, and simply repeating assertions that do not support the opinions that Dr. Adkins did proffer.

B.P.J. leads by asserting that the supposed “fixed” nature of gender identity is bindingly established by a Fourth Circuit finding that “mainstream medic[ine]” says that “forcible” external efforts to change gender identity were unsuccessful. Pl.’s Adkins Resp. 11. The argument is wrong at every level.

First, factual findings in one case are just that—factual findings. They are not precedential legal holdings. On a different, fuller, and more recent record, a separate court must reach its own conclusions based on the facts put before it. Indeed, the idea

of “locking down” the science—such that one court would be bound by science-related factual findings of a different court, on a different record, compiled years earlier—would be particularly pernicious in a field such as transgender health, which the World Professional Association for Transgender Health (“WPATH”) describes as “rapidly evolving.” *Daubert Resp. App. to the Def.-Intervenor and the State of W. Va.’s Joint Mem. in Resp. to Pl.’s Mots. to Exclude Experts’ Test.* (*Daubert Resp. App.*) 889, ECF No. 343-1. More broadly, the Supreme Court recognized in *Daubert* that “[s]cientific conclusions are subject to perpetual revision,” and that as a result “open debate is an essential part of both legal and scientific analyses.” 509 U.S. at 596–97. Thus, while B.P.J. is certainly entitled to cite legal authority to support legal propositions, B.P.J. cannot cure the lack of reliability or relevance in Dr. Adkins’ proffered scientific opinion evidence by citing a court’s opinion.

Second, B.P.J. is wrong as a matter of logic. Evidence that gender identity resists “forcible” external pressures to change would not prove that it cannot change at all, particularly relative to an individual’s voluntary feelings or desires.

Third, B.P.J.’s argument attempts to change Dr. Adkins’ stated opinion, which did not focus on “forcible” or “coercive” efforts, but rather asserted that gender identity cannot be changed “voluntarily”—a rather different proposition, and one that the experience of many desisters contradicts. *See* Defs.’ Adkins Br. 10–11. Discussions of “coercion,” “conversion therapy,” or “reparative” treatment are doubly irrelevant. They are also intentionally confusing and inflammatory and should be excluded as unhelpful for this additional reason.

B.P.J. repeats Dr. Adkins’ assertion that children who persist in gender dysphoria “after reaching Tanner Stage 2” (that is, the very first visible signs of puberty) “almost always persist in their gender identity in the long-term.” Pl.’s Adkins Resp. 13. But B.P.J. ignores Dr. Adkins’ admission at deposition that the *only* source she cited in support of this assertion makes no mention whatsoever about

“Tanner Stage 2” and does not assert that transgender identification is locked in at that early stage. *See* Defs.’ Adkins Br. 11; App. 817–18 (Adkins Dep. 256:2–259:8).

B.P.J. grasps at the speculative theme that some biological factors contribute to gender identity. Pl.’s Adkins Resp. 12. As reviewed in Defendants’ motion to exclude Dr. Safer’s testimony (Mem. in Supp. of Def-Intervenor and the State of W. Va.’s Mot. to Exclude Expert Test. of Joshua Safer (Defs.’ Safer Br.) 19–21, ECF No. 314), this position is itself an unreliable opinion because it remains in the realm of speculation, with all hypothesized biological factors unconfirmed, or even rejected, by experiments thus far. But even if some contributing biological factor *were* identified, that would no more tend to prove that gender identity is “fixed” and “unchangeable” than evidence of a genetic contribution to schizophrenia would prove that all individuals with that gene would inevitably develop *and persist in* schizophrenia. It is a *non sequitur*.

Defendants have detailed how Dr. Adkins simply defines away the experiences of change in gender identity reported by those who desist, and by those who report fluid gender identity. Defs.’ Adkins Br. 12–13. In essence, she asserts that we must believe their changing self-reported identities must be believed at every stage, but that those identities nevertheless never really change. These opinions are unreliable both because they are unsupported by science and because they are incoherent and internally contradictory. B.P.J.’s response brief offers no real response. *See* Pl.’s Adkins Resp. 11–14.

For all these reasons, the Court should exclude Dr. Adkins’ proffered testimony that “a person’s gender identity is fixed and cannot be voluntarily changed” as both irrelevant and unreliable.

IV. The Court should exclude Dr. Adkins’ opinions that single-sex sports will cause “extreme harm” and suicide because they are not reliable.

In their opening brief, Defendants demonstrated that Dr. Adkins’ opinion that failure to permit biological male students to participate in female athletics would inflict “extreme harm” on those who identify as female lacks a reliable basis in either her own clinical experience or the scientific literature. Defs.’ Adkins Br. 14–16. B.P.J.’s response simply highlights the deficiency.

Dr. Adkins claims to have served some 500 gender-dysphoric patients; she claims that “on most days” in the clinic she encounters young people who are prevented from playing sport according to their gender identity.⁴ Yet despite these large claimed numbers, she was unable to point to a *single* example of “extreme harm” beyond “changed” friend groups, renewed speculation that exclusion can “push them down the slope” toward depression, and the statistically insignificant observation that just *two* out of her 500 teen patients became overweight and developed Type II diabetes—in a nation in which 40% of adults are obese and 10% develop diabetes. App. 785–86 (Adkins Dep. 129:13–130:10); Defs.’ Adkins Br. 15–16. Anything more, she testified, “would require a bit of speculation.” App. 785 (Adkins Dep. 129:6.) Indeed, expert evidence may not be based on speculation. *Daubert*, 509 U.S. at 590.

Even apart from the statistical absurdity of Dr. Adkins’ “two out of 500” report of diabetes, *In re C.R. Bard, Inc.* reminds us that an expert may not make *ipse dixit* pronouncements attributing causation where alternative causes are possible, and without experiments or observations that “rule out every possible alternative cause.” 948 F. Supp. 2d 589, 602 (S.D.W. Va. 2013). In short, Dr. Adkins’ own clinical experience tends to rebut rather than provide support for her proffered opinion concerning “extreme harm.”

⁴ Of course, the Sports Act imposes no bar on females competing in male sports.

Beyond that, B.P.J. repeats a vague reference to literature (Pl.’s Adkins Resp. 16)—none of which demonstrates or even asserts that separating sport by biology rather than by gender identity will inflict “extreme harm” on biological males who identify as female. B.P.J. quotes no such scientific literature because there is no such literature.

Finally, it is true that “[t]he fact that an NCAA policy *allows* transgender athletes to participate under certain conditions does not undermine Dr. Adkins’ opinions.” Pl.’s Adkins Resp. 17. Defendants made no such claim. What Defendants did say, however—and what B.P.J. did not respond to—is that the fact that the NCAA policy *prohibits* male athletes who identify as females from competing in female athletics for at least a full year, and then, only if they have suppressed testosterone, *does* provide strong evidence against Dr. Adkins’ “extreme harm” opinion, given that Dr. Adkins is unable to identify a single example of “extreme harm” that resulted to a student as a result of exclusion from female athletics under that NCAA policy. Defs.’ Adkins Br. 14–15.

V. The Court should exclude Dr. Adkins’ opinion that her preferred protocol for addressing gender dysphoria is “the only treatment,” because it is both irrelevant and unreliable.

In their opening brief, Defendants noted that neither the Endocrine Society nor WPATH has recommended social transition for prepubertal children, and Defendants cited multiple authorities—including formal statements from respected European health authorities—recommending *against* use of puberty blockers on children suffering from gender dysphoria and recognizing divergent views among mental health professionals as to the best therapeutic path. Defs.’ Adkins Br. 17–19; App. 311 (Levine Rep. ¶ 82).

B.P.J.’s response is to run to prior judicial findings (Pl.’s Adkins Resp. 18) which, as reviewed above, cannot provide the reliable basis for expert opinion evidence required by *Daubert*. B.P.J. simply ignores most of the other sources cited

by Defendants. But Dr. Adkins proposes to testify that her preferred protocol is the “only” accepted treatment. Daubert App. 10 (Adkins Rep. ¶ 22) She has cited no scientific source that says this, and as the sources cited by Defendants demonstrate, it is demonstrably false; views within the profession differ widely. Dr. Adkins’ testimony that hers is “the only treatment” should be excluded as unreliable.

As to relevance, the parties seem now almost to agree about the categorical irrelevance of testimony about the nature and treatment of gender dysphoria, with B.P.J. claiming that Dr. Adkins’ testimony on these topics is only in rebuttal to opinions on these topics proffered by Drs. Levine and Cantor. Pl.’s Adkins Resp. 18. In fact, it was B.P.J. who first introduced assertions on these topics into this litigation, through the Complaint and through expert declarations submitted in support of B.P.J.’s motion for preliminary injunction. But there is no need to debate the sequence; all such evidence, from both sides, should indeed be excluded as irrelevant to the question of whether the Sports Act is “reasonably related” to the important State interest of providing fair, equal, and safe athletic experiences to women and girls in furtherance of the concerns underlying Title IX and its regulations.

VI. This Court should exclude Dr. Adkins’ proffered opinions about the safety of certain treatment protocols because they are irrelevant and unreliable.

Although B.P.J. oddly blames Defendants for introducing questions of treatment safety into this litigation (*see* Pl.’s Adkins Resp. 21–22), Dr. Adkins in fact represented to this Court with B.P.J.’s earliest filings that the use of puberty blockers is “safe,” and she has since made the same assertion about cross-sex hormones.

In their opening brief, Defendants explained that these assertions are irrelevant to this case given that the Sports Act does not require, approve, or prohibit any therapy, and doubly irrelevant given that (1) B.P.J. does not seek any relief that turns on whether any puberty blocker or cross-sex hormones has been administered,

and (2) Dr. Adkins concedes that it would be unreasonable to require hormonal intervention as a condition of participating in female sports. Defs.' Adkins Br. 20.

Dr. Adkins' opinions as to safety are also unreliable. Defendants have detailed Dr. Adkins' failure to identify scientific evidence that social and medical transitions for children are "safe," and noted, to the contrary, considerable evidence that such interventions cannot be considered categorically safe. Defs.' Adkins Br. 20.

B.P.J.'s arguments to the contrary are without substance.

Once again, B.P.J. attempts to substitute judicial findings in other litigation for reliable scientific basis. Pl.'s Adkins Br. 20 (citing *Buckman Co. v. Plaintiffs' Legal Comm.*, 531 U.S. 341, 350–51 (2001)).

B.P.J. argues that the extensive risk disclosures that Dr. Adkins' office reads to every patient and parent before prescribing puberty blockers or cross-sex hormones is somehow evidence that those treatments are safe. Pl.'s Adkins Resp. 20. That makes no sense. Warnings are given because treatments carry risk, not because they are "safe." Risk disclosures are essential to informed consent precisely because these dramatic hormonal interventions impose both *known* safety risks, and *potential* risks which medical science recognizes may exist, but has not yet either proven or disproven.

B.P.J. argues that off-label use of drugs is not illegal. That is true, but that principle provides no evidence that any particular off-label use of any particular drug is "safe." B.P.J. concedes that the FDA has never found either puberty blockers or cross-sex hormones to be safe when used as a treatment for gender dysphoria, but quotes Dr. Adkins' assertion that clinicians "use data that wasn't presented to the FDA to ... see if it is safe." Pl.'s Adkins Resp. 20. But nowhere in her report does she identify that data. Vague references to unidentified data showing unknown results cannot satisfy the requirements of *Daubert*.

B.P.J. accuses Defendants of “fundamentally misrepresent[ing]” the warnings and cautions conveyed in the Endocrine Society’s Clinical Practice Guideline. Pl.’s Adkins Resp. 21 (discussing Hembree et al. (2017)). Defendants have not done so. Instead, Defendants have accurately described and indeed almost exclusively quoted those cautions. It is the warnings and cautions contained in that Guideline, in fact, which are the *only* recommendations that the Guideline identifies supported by anything better than “low quality” evidence. *See* Daubert App. 526 (Hembree et al. (2017)).

Finally, B.P.J. attempts to dismiss the finding, reported in the only article relating to brain development cited by Dr. Adkins (*see* Defs.’ Adkins Br. 21–22), that males who had suppressed normal pubertal development had lower IQ and lower task accuracy than untreated control boys by quoting a separate finding in that same article. Pl.’s Adkins Resp. 21. But the one measurement does not contradict the other, and a negative correlation on *any* aspect of brain development in adolescents is a serious problem for broad claims of “safety.” Yet Dr. Adkins did not engage with or “account for” this negative result. *See Eghnayem v. Boston Sci. Corp.*, 57 F. Supp. 3d 658, 676 (S.D.W. Va. 2014).

VII. This Court should exclude any testimony proffered by Dr. Adkins relating to athletic competition or the fairness of athletic competitions as she has no relevant experience, research, or publications and does not qualify as an expert on those topics.

Dr. Adkins’ exposure to regulating hormones in athletes is limited to “some professional experience with assisting people in improving their physiology with regard to, you know, muscle mass, fat mass. Sport would be outside ... this specifically.” App. 791 (Adkins Dep. 150:10–14). Or as she put it more simply when questioned about competition within sports, “I don’t study sports.” *Id.* (Adkins Dep. 151:12–13). To the extent that Dr. Adkins would extrapolate from her endocrinological experience to opining on the interaction of endocrinology and

athletic competition policies, or to any aspect of what is or is not “fair” with respect to transgender participation in female athletics, that would be lay commentary and inadmissible as expert testimony.

CONCLUSION

Trial of this matter will be sufficiently complex without admitting speculation and opinion ungrounded in peer-reviewed science or reliable methodology. For the reasons set forth above and in Defendants’ Memorandum in Support of Motion to Exclude Expert Testimony of Dr. Deanna Adkins, this Court should exclude the proffered opinions of Dr. Adkins identified in that opening memorandum as irrelevant, unreliable, or both.

Respectfully submitted this 2nd day of June, 2022.

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IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA
CHARLESTON DIVISION

B.P.J., by her next friend and mother,
HEATHER JACKSON

Plaintiff,

v.

WEST VIRGINIA STATE BOARD OF
EDUCATION, HARRISON COUNTY BOARD
OF EDUCATION, WEST VIRGINIA
SECONDARY SCHOOL ACTIVITIES
COMMISSION, W. CLAYTON BURCH in his
official capacity as State Superintendent,
DORA STUTLER in her official capacity as
Harrison County Superintendent, and THE
STATE OF WEST VIRGINIA

Defendants,

and

LAINY ARMISTEAD

Defendant-Intervenor.

Case No. 2:21-cv-00316

Hon. Joseph R. Goodwin

CERTIFICATE OF SERVICE

I, Brandon S. Steele, hereby certify that on June 2, 2022, I electronically filed a true and exact copy of the ***Reply Memorandum in Support of Defendant Intervenor and the State of West Virginia's Motion to Exclude Expert Testimony of Dr. Deanna Adkins*** with the Clerk of Court and all parties using the CM/ECF system.

/s/ Brandon S. Steele

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