

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, and DORA STUTLER in her official capacity as Harrison County Superintendent,

*Defendants.*

Civil Action No.

Hon.

**DECLARATION OF PROFESSOR MARY D. FRY, PHD**

1. I have been retained by counsel for Plaintiff as an expert in connection with the above-captioned litigation.

2. The purpose of this declaration is to offer my expert opinion on: (1) the psychological and behavioral benefits of youth sports; and (2) the conditions that lend themselves to youth participating in athletics and accessing those benefits when they do participate.

3. I have knowledge of the matters stated in this declaration. I have collected and cite to relevant literature concerning the issues that arise in this litigation in the body of this declaration and in the attached bibliography.

4. In preparing this declaration, I reviewed West Virginia HB 3293, the bill at issue in this litigation.

5. In preparing this declaration, I relied on my education and training, my professional and research experience, and my knowledge of the literature in the pertinent fields. The materials I have relied upon in preparing this declaration are the same types of materials that experts in my field of study regularly rely upon when forming opinions on the subject. I may wish to supplement these opinions or the bases for them as a result of new research or publications or in response to statements and issues that may arise in my area of expertise.

### **PROFESSIONAL BACKGROUND**

6. I am a Professor in the Department of Health, Sport & Exercise Sciences at the University of Kansas in Lawrence, Kansas. A true and correct copy of my CV is attached hereto as Exhibit A.

7. In 1984, I graduated from Texas Wesleyan University in Fort Worth, Texas with a Bachelor of Science in Physical Education. After graduating, I spent about five years teaching physical education and coaching tennis at schools and summer camps in Texas and North Carolina.

8. I graduated with a Master of Science in Sport Psychology/Pedagogy from the University of North Carolina in Greensboro in 1990. Then, in 1994, I graduated with a doctorate in Sport & Exercise Psychology from Purdue University. From 1994 to 1999, I served as an Assistant Professor in the University of Memphis's Department of Human Movement Sciences and Education. I continued at the same institution from 1999 to 2007 as an Associate Professor in the Department of Human & Sport Sciences. I joined the faculty of the University of Kansas in 2007, where I continue to teach and research as a Professor today.

9. I have authored or coauthored 63 papers in peer-reviewed journals, including many studies in sport psychology and youth athlete motivation. I have coauthored five book chapters and one book, titled *A Coach's Guide to Maximizing the Youth Sport Experience: Work Hard and Be Kind*. I have also given 116 presentations on my research at both international and national conferences, as well as dozens of local and regional presentations.

10. I have taught and/or developed six undergraduate level courses and 12 graduate level courses in sport and exercise psychology. The courses I developed include Psychosocial Aspects of Sport, Applied Sport Psychology, Developmental Perspectives in Youth Sport, and Special Course: Sport Psychology Within Youth Sport.

11. On a national level, I have served with the Association of Applied Sport Psychology ("AASP") as a member of the Program Review Committee (2008-present), a Subject Matter Expert for the Certification Exam Committee (2018), and a member of the Ad-Hoc Future of AASP Committee (2012-2015). For the AASP, I have served as an Executive Board Member (2004-2006), two three-year terms as a member of the Social Psychology Section Committee (1996-99; 2001-2003), and as a member of the Dissertation Award Committee (1998 & 2002). I have also served on the Editorial Board for *Physical Activity Today* (1997-2001) and on the Program Review Committee for the American Alliance of Health, Physical Education, Recreation & Dance (2009-2017), in addition to chairing the Committee in 2010. I also serve on the National Advisory Board for the Positive Coaching Alliance.

12. I have undertaken editorial roles on professional journals within my field, including as Associate Editor (2009-2012) and Editorial Board Member (2000-2009; 2013-present) for the *Journal of Applied Sport Psychology*; Associate Editor (2008-present) for the *Journal of Sport Psychology in Action*; Section Editor (2003-2006) and Reviewer (1994-present)

for the *Research Quarterly for Exercise and Sport*; and Editorial Board Member (2011-present) for *Sport, Exercise, and Performance Psychology*.

13. I have served on the Kansas University Certificate in Sport Committee (2017-2018), and the Kansas University Center for Undergraduate Research, Advisory Board (2016-2018), among other roles at the University.

14. I am, or have been, a member of several professional organizations, including the American Psychological Association (2017-present), the Kansas Alliance for Health, Physical Education, Recreation, & Dance (2008-present), the American Alliance for Health, Physical Education, Recreation, and Dance (1988-2017), and the North American Society for the Psychology of Sport and Physical Activity (1988-2000).

15. I also have experience applying sport psychology in the field, which include mental skills interventions for various athletes and teams, including with high school and university athletes (2018-present), a high school baseball team (2013-2018), a youth baseball team (2009-2011), a Division I collegiate volleyball team (2008-2010), a high school basketball team (2006-2007), and a Division I cross country team (2006).

16. I have not previously testified as an expert witness in either deposition or at trial.

17. I am being compensated at an hourly rate of \$250 per hour. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I provide.

### **MOTIVATION AND ATHLETICS**

18. There are many benefits to young people from participating in athletic activities, discussed further below. But understanding what motivates youth to participate in athletics in the first place is essential for understanding how they can access these benefits. One critical way to

increase participation in athletics is to understand the factors that motivate individuals to stay engaged at different ages and in different contexts. Understanding motivation also helps to explain how the benefits youth derive from participating in sport translate to other aspects of their lives.

19. In simple terms, motivation is the desire to do activities. More formally, it is defined as “the process that influences initiation, direction, magnitude, perseverance, continuation, and quality of goal-directed behavior” (Maehr & Zusho, 2009). Motivation is about why, how, when, and in what circumstances people employ their resources.

20. One of the most-researched motivational theories in the field of sport psychology is achievement goal perspective theory (“AGPT”), which was developed to address how motivation could be heightened and sustained over time (Nicholls 1984, 1989). AGPT includes three components that together can work to optimize motivation among all individuals, including youth participating in sports.

21. First is the developmental component of AGPT. Young children are incapable of accurately comparing their ability to others, overestimate their ability, and are naturally focused on their effort as a marker of success. By the time they enter adolescence, however, they are able to distinguish the concepts of effort, luck, and ability.

22. Second, around 12 years of age, children achieve a mature understanding of the concept of ability and at that time adopt their own personal definitions of success, or “goal orientations.” The primary goal orientations are task and ego. Individuals with a “high task orientation” define success based on their effort, improvement, and mastery of tasks over time. In contrast, a high ego orientation occurs when individuals define success in normative terms,

only feeling successful when they outperform others. Individuals are to some degree both task- and ego-oriented; in fact, they can be high and/or low in both orientations.

23. Third, motivations are shaped by outside factors, which can reinforce a task orientation as opposed to an ego orientation. Specifically, athletes' perceptions of the environment that is created by coaches (but can also be influenced by parents and teammates) (Ames, 1992a, 1992b; Nicholls, 1984, 1989) can be a caring and task-involving or ego-involving climate. A caring climate is one where athletes feel safe and welcome, comfortable, valued, and are treated with kindness and respect by all in the sport setting (Newton et al. 2007).

24. With the goal of increasing opportunities for participation in mind, AGPT provides important guidance about how to help each athlete maximize their sport experience and to increase opportunities within athletics for youth.

### **BENEFITS OF SPORT FOR YOUTH ATHLETES**

25. For youth student-athletes, athletics serve a different purpose than for athletes who participate in professional athletics or world elite competition. The National Collegiate Athletic Association (NCAA) estimates that there are 7.3 million high school student-athletes in the United States. Of those millions of athletes, only about 6% go on to compete at the college level in any division (with only about 2% earning an athletic scholarship).<sup>1</sup> By the numbers alone, the primary purpose of high school sports is not about preparing youth for college sports. For the 94% of high school athletes who do not compete in college as well as for those who do, youth sport creates a myriad of benefits (unrelated to preparing athletes to compete in college).

---

<sup>1</sup> NCAA Recruiting Facts (March 2018), <https://www.ncaa.org/sites/default/files/Recruiting%20Fact%20Sheet%20WEB.pdf>.

**A. Athletes' Type of Goal Orientation Determines What Benefits They Derive from Youth Athletics.**

26. A high task orientation, described above in Paragraph 21, is the key to optimizing motivation over time because effort and improvement – the keys to task orientation – are variables that individuals can more easily control. In contrast, individuals high in ego orientation define success based on performance relative to others. High task orientation results in athletes' being more likely to seek challenge, exert high effort, and persist over time (Maehr & Zusho, 2009).

27. It should be noted that the research findings described below, which highlight the relationships between goal orientations and numerous outcome variables, have been consistent for both boys and girls. In other words, within the body of research on athletes' goal orientations, results across studies reveal that task orientation is more often positively correlated with adaptive outcomes (e.g., intrinsic motivation), and ego orientation is more often negatively associated with maladaptive outcomes (e.g., worry) for both boys and girls (Fry & Moore, 2019; Roberts, 2012; Roberts, Nerstad, & Lemyre, 2018).

28. Perhaps the strongest finding within the goal orientation research links a task orientation with high enjoyment. Throughout childhood and adolescence, and across a range of sports, athletes who define success based on their personal effort and improvement have more fun playing their sport than those high in ego orientation (Schneider, Harrington, & Tobar, 2017; Seifriz, Duda, & Chi, 1992; Stephens, 1998; Stuntz & Weiss, 2009; van de Pol & Kavussanu, 2011). Importantly, goal orientations are also associated with the sources of enjoyment athletes identify. For example, youth athletes with a high task orientation more often report experiencing enjoyment from learning and having positive team interactions. In contrast, athletes high in ego

orientation more often report experiencing enjoyment as a result of winning and having high perceived competence (Lochbaum & Roberts, 1993).

29. Another benefit of high task orientation in youth athletes is the strong and positive association with interpersonal and team dynamics (Balaguer, Duda, & Crespo, 1999; Ommundsen, Roberts, Lemyre, & Miller, 2005). Task orientation is positively correlated with peer acceptance, less conflict with peers, and greater satisfaction with the coach.

30. Athletes high in ego orientation report lower companionship and greater conflict with teammates (Balaguer et al., 1999), and there is no evidence to suggest they reap the benefits of enhanced social relationships that athletes with high task orientation do (Ommundsen et al., 2005).

31. Athletes high in task orientation also report greater confidence and perceived ability, and task orientation has been correlated with both self and team efficacy and greater perceived competence (Magyar & Feltz, 2003; Seifriz et al., 1992; Stuntz & Weiss, 2009). Further, athletes high in task orientation report utilizing more adaptive coping strategies (Kim, Duda, & Gano-Overway, 2011; McCarthy 2011). These adaptive outcomes have been found for middle school, high school, and collegiate athletes.

32. Ego orientation (i.e. the non-pejorative, descriptive term for defining success based on ability and performance outcomes), in contrast, is not correlated with perceived ability in general. Confidence of athletes high in ego orientation was more often based on their perceptions of ability and having a strong physical presence, whereas athletes high in task orientation based their perceptions of confidence on their sense of feeling well prepared and mentally strong (Magyar and Feltz, 2003). There is also a consistently significant relationship between ego orientation and anxiety (Lochbaum et al., 2016). Young athletes with high ego

orientation participating in a variety of sports have reported higher trait and state cognitive and somatic anxiety, as well as greater concentration disruption, maladaptive perfectionism, and concern over making mistakes (Grossbard, Cumming, Standage, Smith, & Smoll, 2007; Hall, Kerr, & Matthews, 1998; Ommundsen & Pedersen, 1999; Ommundsen et al., 2005; White & Zellner, 1996).

**B. Structuring Sport with a Caring and Task-Involving Climate Fosters High Task Orientation, Which Optimizes Benefits for Youth Athletes.**

33. A large body of research in sport psychology, and specifically youth sport, identifies how sport can be structured to help young athletes reap many physical, psychological, and social benefits from their participation in sport and physical activities (Duda, 2013; Fry & Hogue, 2018; Fry & Moore, 2019; Harwood, Keegan, Smith, & Raine, 2015; Roberts, 2013).

34. In youth sports, the climate created on individual athletes' teams, more than the identity of their opponents, determines whether and to what extent young athletes are deriving optimal benefits from sport and maintaining motivation to participate in sport. Overall, the best way to get youth athletes to participate in sports is to create a caring and task-motivated climate, which reinforces high task orientation and leads to the benefits described above. These outcomes help athletes have a sport experience that makes them want to keep playing sport, thereby deriving the benefit of sport more consistently and for longer periods of time. Again, within the motivational climate literature, the findings are consistent for both boys and girls, in that they both have more adaptive responses in a caring and task-involving climate and more problematic, maladaptive responses in ego-involving climates. (Fry & Hogue, 2018; Fry & Moore, 2019; Harwood et al., 2015; Roberts, 2012; Roberts, Nerstad, & Lemyre, 2018).

35. A caring and task-involving climate is one in which coaches do the following: recognize and reward effort and improvement; foster cooperation among teammates; make

everyone feel they play an important role on the team; treat mistakes as part of the learning process; and encourage an approach where everyone is treated with mutual kindness and respect.

36. When athletes perceive a caring and task-involving climate on their teams, they are more likely to have fun, exert high effort, experience intrinsic motivation, have better interpersonal relationships with coaches and athletes, display better sportsperson-like values and behaviors, have better psychological well-being, and perform better (Duda & Nicholls, 1992; Fry & Hogue, 2018; Iwasaki & Fry, 2013; Newton, Duda, & Yin, 2000; McDonald, Cote, Eys, & Deakin, 2011). In addition, there are positive and significant associations between perceptions of a caring climate in sport settings and the hope and happiness of youth, and negative relationships with depression and sadness (Fry et al., 2012), as well as the ability of youth athletes to monitor and control their affective responses. This self-regulation was found to contribute to athlete empathy, indicating that fostering more caring climates in sport settings may facilitate positive social interactions and character development (Gano-Overway et al., 2009). Elite adult athletes who are task-oriented and/or who perceive a task-involving climate are also significantly more likely to report not using performance-enhancing drugs (Allen, et al., 2015).

37. Youth involved in positive and supportive sport environments experience greater self-esteem, psychological well-being, and hope, with less depression, sadness, and burnout than those in less supportive environments. They have better emotional self-regulation, meaning they are more able to manage negative emotions, to keep things in perspective, and to feel and express joy when good things happen (Fry et al, 2012; Gano-Overway et al, 2009).

38. In contrast, where coaches reward only ability and performance outcome, foster rivalry among teammates, punish mistakes, and give most of the recognition to a few “stars,” they contribute to an ego-focused climate that can lead to athletes’ experiencing fewer adaptive

and positive motivational outcomes and greater negative outcomes. Ego-focused environments create greater acceptance of rough play, cheating, and aggressive behaviors in their sport (Boixados, Cruz, Torregrosa, & Valiente, 2004), and are less likely to lead to appropriate, desirable, and respectful behaviors within sport (Fry & Newton, 2003).

39. Athletes' perceptions of a caring and task-involving climate may also be linked to higher quality training and better performance outcomes, as researchers report more effective practice strategies in sport and physical education settings (Boyce, Gano-Overway, & Campbell, 2009; Iwasaki & Fry, 2016; Lochbaum et al., 2016). Some studies have revealed a direct association between perceptions of a task-involving climate to objective performance (Hogue, Fry, & Fry, 2017; Theeboom, De Knop, & Weiss, 1995; Xiang, Bruene, & McBride, 2004).

40. Young athletes have also had higher winning percentages on their teams and performed better on tasks when they perceived a task-involving (rather than ego-involving) climate (Cumming et al., 2007; Sarrazin, Roberts, Cury, Biddle, & Famose, 2002).

41. Athletes' perceptions of a task-involving climate were associated with less performance worry and escapism thoughts (Hatzigeorgiadis & Biddle, 2002). Often, mistakes and facing challenges present opportunities to learn and succeed in different ways (by improving oneself, for example). And in sport, much is unpredictable: An opponent's unexpected performance, the weather, and an illness, can drastically change a competition day. Being adaptive and focused on giving one's best effort can help athletes' overcome disappointment (Fry, et al., 2020; Fry & Moore, 2019).

42. Despite the ego-involving climate's emphasis on performance outcomes, results across studies suggest that the benefits of a task-involving climate may have a direct impact on athletic performance and ultimately improve performance outcomes (Jackson & Roberts, 1992;

McDonald, Cote, & Deakin, 2011). By contrast, no evidence currently points to an ego-involving climate leading to greater performance outcomes with young athletes.

43. Even for athletes who are themselves highly ego-oriented, and who prioritize winning and external rewards, a task-involving and caring climate is preferable. Such a climate encourages young athletes to orient themselves toward a task-involved model for motivation and away from the stress-inducing ego-orientation, which will in turn garner the young person the benefits associated with a task-orientation. For example, Division I college athletes who perceived a caring and task-involving climate on their teams reported having stronger mental skills including their use of goal setting; ability to concentrate, remain worry free, cope with adversity and peak under pressure; act with confidence; and be open to receiving feedback from coaches (Fry, Iwasaki, & Hogue, in press). These findings would suggest that athletes with strong mental skills might also perform better. Further, perceptions of an ego-involving climate have been linked to higher salivary cortisol responses (Hogue, Fry & Fry, 2017). Cortisol is an important and necessary hormone, but in excess it can break down muscle tissue and interfere with the immune system.

**EXCLUDING GROUPS FROM PARTICIPATING IN  
HIGH SCHOOL ATHLETICS WOULD DEPRIVE THEM AND THEIR TEAMMATES  
OF A WIDE RANGE OF EDUCATIONAL BENEFITS**

44. A goal of youth sport is to help young athletes have positive experiences across sport. This includes creating space for athletes to have fun, develop skills, make friends, increase their levels of physical activity, continue their participation over time, and learn valuable life lessons (Thompson, 2010). If athletes are arbitrarily excluded from youth sports, they are, in turn, deprived of those positive experiences and outcomes and their teammates are deprived of a genuinely task-involving and caring sports climate.

45. Athletes who participate in high school sport are more likely to finish college, and more likely to be actively engaged in planning for their future after their sport career ends (Chamberlin & Fry, 2020; Troutman & Defur, 2007). Many of the benefits to youth who participate in athletics are documented throughout life. For example, women who participated in high school sport see greater success in the business world (ESPNW & EY, 2017; Sasaki, 2020).

46. All youth benefit from a sport environment that is task-involving, which results in athletes taking on more challenging tasks (Stuntz & Weiss, 2009; van de Pol & Kavussanu, 2011), building stronger interpersonal dynamics (Balaguer, Duda, & Crespo, 1999; Ommundsen, Roberts, Lemyre, & Miller, 2005), reducing antisocial behavior (Kavussanu & Roberts, 2001; Stephens & Kavanagh, 2003), and acquiring greater confidence (Magyar & Feltz, 2003; Seifriz et al., 1992; Stuntz & Weiss, 2009).

47. Coaches and others involved in youth sport have a responsibility for creating the climate that is most conducive to encouraging young athletes to adopt a high task-orientation. Arbitrarily excluding athletes from their teams undermines a caring climate, which, in turn, diminishes the positive outcomes for all youth athletes. The negative outcomes apply not only to the athletes who are excluded, but to the other athletes on the team.

48. Excluding groups of athletes can also undermine the benefits of a high task-involving climate, as such a climate should help athletes develop strong interpersonal and team dynamics (Balaguer, Duda, & Crespo, 1999; Ommundsen, Roberts, Lemyre, & Miller, 2005). Fostering task orientation positively correlates with peer acceptance, less conflict with peers, and greater satisfaction with the coach. These outcomes help athletes have a sport experience that make them want to keep playing sport.

49. When young athletes are excluded from participating in youth sport, or are in a climate where they do not feel accepted or respected, they do not have the opportunity to reap these benefits.

**FOCUSING SOLELY ON PERFORMANCE OUTCOMES  
UNDERMINES THE BENEFITS OF YOUTH ATHLETICS**

50. When a team, league, or organization adopts an ego-promoting philosophy, and cares only about performance outcomes, the broader benefits of sport are diminished for all involved (both with regard to their future athletic careers and lives outside of sport). The overwhelming majority of high school athletes will never go on to compete in college, so focusing only on the highest-performing athletes compromises the other critical benefits of sports for youth.

51. Such a focus is stress-inducing and undermines the experience of the rest of the athletes who may train hard, improve, but may not be on the podium to receive a medal. The climate of youth sport must be geared to include everyone, including those who are not as skilled, so that teams are more likely to help every athlete maximize their potential. From an educational perspective, it is optimal to encourage all athletes to do the best that they can, and to help all athletes enjoy the sport that they love. Even among Division I collegiate athletes, athletes who perceived a task-involving climate on their teams reported higher academic and athletic satisfaction (Tudor & Ridpath, 2018).

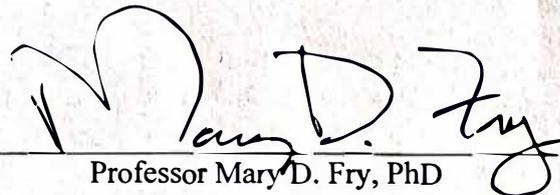
52. Thus, the benefits associated with youth sport are not limited to whether athletes are winning competitions, where they are ranked in their sport, or what level of publicity they are getting. In fact, a focus exclusively on those things not only undermines an athlete's success in those areas but can compromise the holistic range of benefits derived from youth sport. Ultimately, athletes are more likely to reap the positive benefits associated with youth sports if

they are task-involved, which places greater emphasis on effort, than if they are ego-involved, which would put greater emphasis on trappings of individual success.

53. For coaches of youth athletes, one important message is that, for the overwhelming majority of people, the period of time that a person participates in organized athletics is short and maximizing the benefits of that participation is essential. As Jim Thompson, Founder and former-CEO of the Positive Coaching Alliance notes: "Here's the bottom line for parents. Your child's experience with youth sports will come to an end, and it may happen suddenly. If you are like me, you will look back and think, 'I wish I had enjoyed it more. I wish I hadn't obsessed so much about how well my child was performing, or the team's record, or whether he or she was playing as much as I wanted, or why the coach didn't play him or her in the right position. I wish I had just enjoyed the experience more.' Because the youth sports experience is so intense, we tend to forget how short it is and what a small amount of time parents and children get to spend together over the course of life."

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Dated: May 7, 2021

  
Professor Mary D. Fry, PhD

## **BIBLIOGRAPHY**

- Allen, J., Taylor, J., Dimeo, P, Dixon, S., & Robinson, L. (2015). Predicting elite Scottish athletes' attitudes towards doping: Examining the contribution of achievement goals and motivational climate. *Journal of Sports Sciences*, 33, 899-906.
- Ames, C. (1992a). Achievement goals, motivational climate, and motivational processes. In *Motivation in sport and exercise* (pp. 161–176). Champaign, IL: Human Kinetics.
- Ames, C. (1992b). Classrooms: Goals, Structures, and Student Motivation. *Journal of Educational Psychology*, 84(3), 261–271. <https://doi.org/10.1037/0022-0663.84.3.261>
- Balaguer, I., Duda, J. L., & Crespe, M. (1999). Motivational climate and goal orientations as predictors of perceptions of improvement, satisfaction, and coach ratings among tennis players. *Scandinavian Journal of Medicine and Science in Sports*, 9, 381-388.
- Boixadós, M., Cruz, J., Torregrosa, M., & Valiente, L. (2004). Relationships among motivational climate, satisfaction, perceived ability, and fair play attitudes in young soccer players. *Journal of Applied Sport Psychology*, 16(4), 301–317. <https://doi.org/10.1080/10413200490517977>
- Boyce, B. A., Gano-Overway, L. a., & Campbell, A. L. (2009). Perceived motivational climate's influence on goal orientations, perceived competence, and practice strategies across the athletic season. *Journal of Applied Sport Psychology*, 21(January), 381–394. <https://doi.org/10.1080/10413200903204887>
- Boyd, M., Kim, M., Ensari, N. & Yin, Z. (2014). Perceived motivational team climate in relation to task and social cohesion among male college athletes. *Journal of Applied Social Psychology*, 44, 115-123.
- Cumming, S. P., Smoll, F. L., Smith, R. E., & Grossbard, J. R. (2007). Is winning everything? The relative contributions of motivational climate and won-lost percentage in youth sports. *Journal of Applied Sport Psychology*, 19(3), 322–336. <https://doi.org/10.1080/10413200701342640>
- Duda, J. L. (2013). The conceptual and empirical foundations of Empowering Coaching TM: Setting the stage for the PAPA project. *International Journal of Sport and Exercise Psychology*, 11(4), 311–318. <https://doi.org/10.1080/1612197X.2013.839414>
- Duda, J. L., & Nicholls, J. G. (1992). Dimensions of achievement motivation in schoolwork and sport. *Journal of Educational Psychology*, 84(3), 290–299. <https://doi.org/10.1037/0022-0663.84.3.290>
- Fry, M. D., & Hogue, C. M. (2018). Psychological considerations for children and adolescents in sport and performance. Oxford Research Encyclopedia of Psychology.

- Fry, M., & Moore, E. (2018). Motivation in sport: Theory and application. In M. H. Anshel (Ed.), T. Petrie, E. Labbe, S. Petruzello, & J. Steinfeldt (Assoc. Eds.), *APA Handbook of Sport and Exercise Psychology*. Vol 1. Sport Psychology (pp. 273-299). Sport psychology. Washington DC: American Psychological Association.
- Fry, M. D., & Newton, M. (2003). Application of Achievement Goal Theory in an urban youth tennis setting. *Journal of Applied Sport Psychology*, 15(1), 50–66. <https://doi.org/10.1080/10413200305399>
- Fry, M. D., Gano-Overway, L., Guivernau, M., Kim, M., & Newton, M. (2020). A coach's guide to maximizing the youth sport experience: Work hard, be kind. New York: Routledge.
- Fry, M. D., & Gano-Overway, L. A. (2010). Exploring the contribution of the caring climate to the youth sport experience. *Journal of Applied Sport Psychology*, 22(3), 294–304.
- Fry, M. D., Iwasaki, S., & Hogue, C., in press. The relationship between the perceived motivational climate in elite collegiate sport and athlete psychological coping skills. *Journal of Clinical Sport Psychology*.
- Gano-Overway, L. A., Newton, M., Magyar, T. M., Fry, M. D., Kim, M.-S., & Guivernau, M. R. (2009). Influence of caring youth sport contexts on efficacy-related beliefs and social behaviors. *Developmental Psychology*, 45(2), 329–340. <https://doi.org/10.1037/a0014067>.
- Grossbard, J. R., Cumming, S. P., Standage, M., Smith, R. E., & Smoll, F. L. (2007). Social desirability and relations between goal orientations and competitive trait anxiety in young athletes. *Psychology of Sport and Exercise*, 8(4), 491-505. <https://doi.org/10.1016/j.psychsport.2006.07.009>
- Hall, H. K., Kerr, A. W., & Matthews, J. (1998). Precompetitive anxiety in sport: The contribution of achievement goals and perfectionism. *Journal of Sport & Exercise Psychology*, 20(2), 194–217.
- Harwood, C. G., Keegan, R. J., Smith, J. M. J., & Raine, A. S. (2015). A systematic review of the intrapersonal correlates of motivational climate perceptions in sport and physical activity. *Psychology of Sport and Exercise*, 18, 9–25. <https://doi.org/10.1016/j.psychsport.2014.11.005>
- Hogue, C. M., Fry, M. D., & Fry, A. C. (2017). The differential impact of motivational climate on adolescents' psychological and physiological stress responses. *Psychology of Sport and Exercise*, 30, 118–127. <https://doi.org/10.1016/j.psychsport.2017.02.004>
- Iwasaki, S., & Fry, M. D. (2016). Female adolescent soccer players' perceived motivational climate, goal orientations, and mindful engagement. *Psychology of Sport and Exercise*, 27, 222–231. <https://doi.org/10.1016/j.psychsport.2016.09.002>

- Jackson, S. A., & Roberts, G. C. (1992). Positive performance states of athletes: Toward a conceptual understanding of peak performance. *Sport Psychologist*, 6(2), 156-171.
- Kavussanu, M., & Roberts, G. C. (2001). Moral functioning in sport: An achievement goal perspective. *Journal of Sport & Exercise Psychology*, 23(1), 37-54.
- Kim, M., Duda, J. L., & Gano-Overway (2011). Predicting occurrence of and responses to psychological difficulties: The interplay between achievement goals, perceived ability and motivational climates among Korean athletes. *International Journal of Sport and Exercise Psychology*, 9, 31-47.
- Lochbaum, M., Cetinkalp, Z. K., Graham, K., Wright, T., & Zazo, R. (2016). Task and ego goal orientations in competitive sport: A quantitative review of the literature from 1989 to 2016. *Kinesiology*, 48, 3-29.
- Maehr, M. L., & Zusho, A. (2009). Achievement goal theory: The past, present, and future. In K.R. Wentzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 77-104). New York, NY: Routledge.
- Magyar & Feltz (2003). The influence of dispositional and situational tendencies on adolescent girls' sport confidence sources. *Psychology of Sport and Exercise*, 4, 175-190.
- McCarthy, J. J. (2011). Exploring the Relationship Between Goal Achievement Orientation and Mindfulness in Collegiate Athletics. *Journal of Clinical Sport Psychology*, 5(1), 44-57.
- MacDonald, D. J., Cote, J., Eys, M., Deakin, J. (2011). The role of enjoyment and motivational climate in relation to the personal development of team sport athletes. *Sport Psychologist*, 25, 32-46.
- Newton, M., Duda, J. L., & Yin, Z. (2000). Examination of the psychometric properties of the perceived motivational climate in sport questionnaire-2 in a sample of female athletes. *Journal of Sports Sciences*, 18(4), 275-290. <https://doi.org/10.1080/026404100365018>
- Newton, M., Fry, M. D., Watson, D. L., Gano-Overway, L. A., Kim, M., Magyar, T. M., & Guivernau, M. R. (2007). Psychometric properties of the Caring Climate Scale in a physical activity setting. *Revista de Psicología Del Deporte*, 16, 67-84. Retrieved from <file:///C:/Users/zar4559/Downloads/22-22-1-PB.pdf>
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91(3), 328-346. <https://doi.org/10.1037/0033-295X.91.3.328>
- Nicholls, J. G. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- Olympiou, A., Jowett, S., & Duda, J. L. (2008). The psychological interface between the coach-

created motivational Climate and the coach-athlete relationship in team sports. *Sport Psychologist*, 22(4), 423–438. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=35719365&lang=es&site=ehost-live&scope=site>

- Ommundsen, Y & Petersen, B.H. (1999). The role of achievement goal orientations and perceived ability upon somatic and cognitive indices of sport competition trait and anxiety. *Scandinavian Journal of Medicine and Science in Sports*, 9, 333-343.
- Ommundsen, Y., Roberts, G. C., Lemyre, P.-N., & Miller, B. W. (2006). Parental and coach support or pressure on psychosocial outcomes of pediatric athletes in soccer. *Clinical Journal of Sport Medicine : Official Journal of the Canadian Academy of Sport Medicine*, 16(6), 522–526. <https://doi.org/10.1097/01.jsm.0000248845.39498.56>
- Poux, K. N., & Fry, M. D. (2015). Athletes' perceptions of their team motivational climate, career exploration and engagement, and athletic identity. *Journal of Clinical Sport Psychology*, 9(4), 360–372. <https://doi.org/10.1123/jcsp.2014-0050>
- Roberts, G. C. (2013). Advances in motivation and sport exercise. In D. C. Roberts, G. C. & Treasure (Ed.), *Advances in motivation in sport and exercise* (3rd Ed), pp. 5–58. Champaign, IL: Human Kinetics.
- Roberts, G. C., Nerstad, G. L., & Lemyre, P. N. (2018). Motivation in sport and performance. In O. Braddick (Ed.), *Oxford Research Encyclopedia of Psychology* (pp. 1-46). Oxford University Press.
- Sarrazin, P., Roberts, G. C., Cury, F., Biddle, S., & Famose, J.-P. (2002). Exerted effort and performance in climbing among boys: The influence. *Research Quarterly for Exercise and Sport*, 73(4).
- Sasaki, J. (2020). How can winning on the playing field prepare you for success in the boardroom? EY: Building a better world. [https://www.ey.com/en\\_gl/women-fast-forward/how-can-winning-on-the-playing-field-prepare-you-for-success-in-the-boardroom](https://www.ey.com/en_gl/women-fast-forward/how-can-winning-on-the-playing-field-prepare-you-for-success-in-the-boardroom)
- Schneider, R. A. Y., Harrington, M., & Tobar, D. (2017). Goal orientation and how a task or ego mentality can affect the enjoyment for college hockey players. *College Student Journal*, 51(1), 57-62.
- Seifriz, J. J., Duda, J. L., & Chi, L. (1992). The relationship of perceived motivational climate to intrinsic motivation and beliefs about success in basketball. *Journal of Sport & Exercise Psychology*, 14, 375–391.
- Stephens, D. E., & Kavanagh, B. (2003). Aggression in Canadian youth ice hockey: The role of moral atmosphere. *International Sports Journal*, 7, 109-119.
- Stuntz & Weiss (2009). Achievement goal orientations and motivational outcomes in youth

sport: The role of social orientations. *Psychology of Sport and Exercise*, 10, 255-262.

Theeboom, M., Knop, P. De, & Weiss, M. R. (1995). Motivational climate, psychological responses, and motor skill development in children's sport: A field-based intervention study. *Journal of Sport & Exercise*, 17, 294-311.

Thompson, J. (2010). *Positive coaching: Building character and self-esteem through sports*. New York: Brown & Benchmark.

Troutman, K., & Dufur, M. (2007). From high school jocks to college grads: Assessing the long-term effects of high school sport participation on females' educational attainment. *Youth & Society*, 38(4), 443-462. doi:10.1177/0044118X06290651

Tudor, M. L., & Ridpath, B. D. (2018). Does the perceived motivational climate significantly predict academic and/or athletic motivation among NCAA Division I college athletes. *Journal of Contemporary Athletics*, 12(4), 291-307.

van De Pol, P. K. C., Kavussanu, M., (2011). Achievement goals and motivational responses in tennis: Does the context matter? *Psychology of Sport & Exercise*, 12, 176-183.

White, S., & Zellner (1996). The relationship between goal orientation, beliefs about the causes of sport success, and trait anxiety among high school, intercollegiate, and recreational sport participants. *Sport Psychologist*, 10, 58-72.

Xiang, P., Bruene, A., & McBride, R. E. (2004). Using achievement goal theory to assess an elementary physical education running program. *Journal of School Health*, 74, 220-225.