Original research

International Journal of Sports Science & Coaching

International Journal of Sports Science & Coaching
2018, Vol. 13(6) 828–840

DOI: 10.1177/1747954118787065
journals.sagepub.com/home/spo
SAGE

Coaching efficacy, moral disengagement, and responses to hostile aggression among high school coaches

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Abstract

This mixed-methods study examined the association between high school sport coaches' moral disengagement and their perceived coaching efficacy, and began to explore coaches' justifications of and consequences for the hostile aggression exhibited by their athletes. High school coaches in the United States ($N = 449$) completed online surveys that included the Moral Disengagement in Sport Scale, Coaching Efficacy Scale II-High School Teams, and questions regarding their beliefs about and responses to athlete's hostile aggressive behaviors. Hierarchical regression analyses were conducted to determine the association between coaches' moral disengagement and their perceived coaching efficacy, and multiple analysis of variance explored differences in moral disengagement and coaching efficacy based on coaches' justifications for athletes' hostile aggression. Qualitative analyses involved coding coaches' responses to questions of when they believed hostile aggression displayed by athletes was justified, and their typical responses to athletes' hostile aggression. Results suggested that coaches' moral disengagement was a negative predictor of their total perceived coaching efficacy, as well as specific aspects of their perceived coaching efficacy. Further, a majority of coaches indicated that hostile aggression was never acceptable or justified. Based on these results, differences in moral disengagement were found between coaches who did and did not justify athlete hostile aggression. The most common consequences for hostile aggression involved reduced playing time and additional physical conditioning. The current findings highlight the significance of coaches' moral disengagement as it relates to their coaching, supporting a need for greater coaching education around coaching philosophies and approaches to disciplining athletes.

Keywords

Character building, coach education, ethics, punishment

Introduction

Sport is believed by many to have the potential to build character within its participants.[1] However, not all behaviors that occur within the sporting arena exemplify positive character traits. A prevalent example of this is *hostile aggression*, an anger-driven behavior carried out with the primary goal of harming another individual.[2] This differs from *instrumental aggression*, which is goal-directed aggression (i.e. goal to score, play tight defense) in which causing harm to another is not the primary goal, but can occur as a result of a sport-related action.[2] Psychology researchers have been making the distinction between *hostile* and *instrumental aggression* since the 1960s, and within the last two decades it has been implemented into sports-related models, such as the Abrams Model of Sport Violence, due to its relevance within sport.[2] There have been various highly publicized incidents of hostile aggression involving athletes; for instance, Duke University basketball player Grayson Allen became well known for more than just his athletic abilities after tripping opposing players in multiple games out of apparent anger and with no clear sport-related goals.[3] While both hostile

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and instrumental aggression can result in negative consequences, it is the immoral motives behind hostile aggression that are most concerning. For this reason, it is critical to explore factors that may have an influence on hostile aggressive behaviors.

To better understand athletes' behaviors, sport psychology researchers have utilized Bandura's social cognitive theory (SCT) of moral thought and action to identify influencing factors.[4] Bandura's SCT proposes that moral conduct is regulated via the interaction of personal, behavioral, and environmental factors. In examining hostile aggressive behaviors, it is important to understand the aggressor's moral thoughts and self-regulating mechanisms along with the social agents who influence those behaviors. Within high school sports, common social agents include coaches, teammates, parents, fans, and possibly the media and collegiate scouts/coaches. Beyond interscholastic sports, the aforementioned social agents continue to play a role in athletes' behaviors along with collegiate athletic departments, and professional team owners and administrators. Bandura's social learning theory (SLT) of aggression is useful in understanding how adults influence adolescent athletes' behaviors as well as how athletes learn aggressive behaviors from these adults.[5] According to SLT, individuals learn behaviors via the observation of others' behaviors (modeling) and the consequences associated with their own behaviors (operant conditioning). As coaches serve an important role in shaping adolescent athletes' sport-specific behaviors, we must consider how their responses or reactions to athletes' hostile aggression reinforce those behaviors. Taking the aforementioned example of Grayson Allen tripping opposing players out of anger, we should also consider his coach Mike Krzyzewski's response to Allen's behaviors. Krzyzewski initially reported that Allen would be suspended "indefinitely," but ultimately made the decision to end the suspension after just one game.[6] The decisions that coaches make in response to athletes' hostile aggression serve as reinforcement of the athletes' moral behaviors; therefore, it is critical to develop a better understanding of these decisions and the thought processes behind them.

Coaching impact on moral conduct

Hostile aggressive behavior can be considered immoral conduct, carried out with the deliberate intention of harming someone else. This intention to cause harm appears to represent a lack of inhibition, the aspect of morality in which an individual is able to refrain from acting in an inhumane manner.[7] For example, a baseball pitcher who is upset by the current score and who lacks the ability to refrain from treating others inhumanely may intentionally throw the next pitch at the batter's head. It is instances like this that may be influenced to some extent by coaches.[8,9] A coaching style that allows for athletes to enjoy the processes of sport and pursue personally meaningful goals (autonomy-supportive) has been associated with athletes exhibiting *prosocial behavior* (the proactive aspect of morality) toward teammates because they are autonomously motivated, and thus behaving more in line with their true selves.[8] It is not surprising then, that a controlling coaching style, in which a coach emphasizes winning and dominance as the primary goals, has been linked to athletes' *antisocial behavior* (the inhibitive aspect of morality) toward opponents and teammates. This relationship is mediated by the athletes' moral disengagement, possibly because coaches with a controlling style influence their athletes to act in accordance with the expectations of authority figures; thus, the athletes may have less self-regulation.[8] In addition to coaching style, coaches' perceived behaviors and their attitudes towards athletes' unsportsmanlike conduct appear to be associated with athlete unsportsmanlike behaviors.[9] In fact, perceived unsportsmanlike behaviors of coaches were better predictors of youth athletes' unsportsmanlike behaviors than the athletes' own attitudes about poor sportsmanship, highlighting the extent to which coaches' actions can influence young athletes.[9]

Within team sports, coaches also have an influence on athletes' moral behaviors through the team climates that they establish. Hodge and Gucciardi[10] found that autonomy-supportive climates created by coaches predicted prosocial behaviors towards opponents and teammates while predicting lower levels of antisocial behaviors towards teammates. A controlling coach climate predicted greater moral disengagement, which influenced greater antisocial behavior toward opponents and teammates. It is apparent that coaches play an important role in the process of athletes learning which behaviors are acceptable and not acceptable within sports, placing them under the microscope when it comes to their own actions and coaching abilities.

Coaching efficacy. The original coaching efficacy model was developed by Feltz et al.[11] in order to understand the connections between sources of coaching efficacy information, dimensions of coaching efficacy, and the outcomes of coaching efficacy dimensions. Building upon this model, Boardley[12] developed a revised coaching efficacy model that further explains the link between coaching efficacy and athlete outcomes such as confidence, competence, and character. This revised model integrates components of Horn's model of coaching effectiveness with athlete outcomes, emphasizing the importance of athletes' perceptions of coaches' behaviors on athlete outcomes.[13] Within this revised coaching

efficacy model, various sources of coaching efficacy information influence a coach's self-perceptions of their own coaching efficacy; these sources include the extent of their experience and preparation, win/loss record, perceived skill of athletes, and community support. The five dimensions of coaching efficacy are game strategy efficacy (e.g. confidence in ability to lead), motivation efficacy (e.g. influence on psychological skills of athletes), teaching technique efficacy (e.g. instructional ability), character building efficacy (e.g. positive attitude and personal development of athletes), and physical conditioning.[14]

Specific dimensions of coaching efficacy have been identified as predictors of behaviors representative of both the inhibitive and proactive components of morality, although the findings in this area have been inconsistent. For instance, coaches' reported game strategy efficacy has a strong positive association with youth soccer athletes' willingness to aggress.[15] This relationship suggests that athletes may use aggression as part of their competition strategy, as limiting an opponent through aggressive behavior increases the possibility of winning. While the researchers describe this as pertaining to instrumental aggression, hostile aggression may also contribute to success in competition in the same way as it can harm opponents to the point that they are unable to perform to their full potential or at all. The researchers also unexpectedly found that character building efficacy was not associated with athletes' willingness to aggress, with the explanation that character building efficacy is oriented toward the proactive aspect of morality and not associated with the inhibitive aspect of morality.[15] Findings from a study of adult rugby union players' moral behaviors support this idea; athletes' perceptions of their coaches' character building efficacy predicted the athletes' prosocial behaviors, supporting the link between character building and the proactive aspect of morality exhibited by athletes.[16] In the same study, none of the coaching efficacy dimensions were associated with antisocial behavior. In a similar study, Malete et al.[17] found that the dimensions of character building and game strategy had no influence on the behaviors of youth soccer players in Botswana. However, it was also found that the athletes' perceptions of their coaches' game strategy competence were positively related to their own antisocial behaviors. This supports Boardley's revised model of coaching efficacy, which emphasizes the importance of athletes' perspectives of their coaches' efficacy.[12,13] The results also brought about the idea that coaches' game strategy efficacy has a greater impact on athletes' moral behaviors, thus hiding the influence of character building efficacy when the two are analyzed together. Despite a lack of consistent findings, it appears that coaching efficacy may influence athletes' morality and actions within sports and is worth further exploration, along with the coaches' own moral disengagement.

A coach's moral disengagement. Moral disengagement is an aspect of Bandura's SCT, which maintains that moral behavior is largely self-regulated through self-monitoring of conduct, judgment of conduct, and an ultimate emotional reaction to this conduct. The eight mechanisms of moral disengagement serve to reduce an individual's personal responsibility for his or her own actions, thus reducing his or her anticipation of guilt upon violating their own moral standards.[18] These mechanisms can disengage a person's self-sanctions by changing his or her perspective of the behavior (moral justification, euphemistic labeling, advantageous comparison), obscuring accountability for the behavior (displacement of responsibility, diffusion of responsibility), disregarding or altering the consequences (distortion of consequences), or blaming and devaluing the victims (dehumanization, attribution of blame).

In the last decade, moral disengagement has been studied both qualitatively and quantitatively within the athlete population. In a review of moral disengagement research in sport, Boardley and Kavussanu[19] found that moral disengagement had been mostly studied in relation to behaviors occurring during sport participation, and doping in sport. Qualitative studies of moral disengagement occurrences during sport participation suggest a strong connection between moral disengagement and transgressive behavior, and suggest that the mechanisms of moral disengagement work conjointly to facilitate harmful actions.[20–22] Quantitative research has suggested that moral disengagement is connected to antisocial behavior, and also leads to less prosocial behavior.[23] While these findings provide a greater understanding of the personal factors that influence athletes' hostile aggressive behaviors, there is a need to also understand the environmental factors that influence these behaviors. Within sport research, we must begin to consider the possible importance of coaches' moral disengagement as it relates to their perceived coaching efficacy and ultimately their athletes' behaviors.

Current study

The current study addresses four questions using mixed methods. In an effort to understand the role that coaches' moral justifications might play in their interactions with athletes (i.e. responses to athletes' hostile aggression), quantitative analyses were used to examine the relationship between high school coaches' moral disengagement and their perceived coaching efficacy. They were also used to assess differences in moral

disengagement and in coaching efficacy between coaches who justified hostile aggression and those who did not. Qualitative analyses were used to explore coaches' beliefs about when hostile aggression is justified and the consequences that they implement with athletes who exhibit hostile aggression. The following research questions were developed for this study:

Research Question 1: Is perceived coaching efficacy associated with moral disengagement among high school coaches when controlling for years of coaching experience, gender, gender of the athletes they coach, and the type of sport they coach (contact vs. non-contact)?

Hypothesis 1a: Perceived overall coaching efficacy will be negatively associated with moral disengagement among high school coaches when controlling for additional variables.

Hypothesis 1b: Perceived game strategy efficacy will be positively associated with moral disengagement when controlling for additional variables.

Hypothesis 1c: Perceived character building efficacy will be negatively associated with moral disengagement when controlling for additional variables.

Research Question 2: In what instances do coaches believe hostile aggression is justified?

Research Question 3: Are there differences in moral disengagement and coaching efficacy between high school coaches who report that hostile aggression is never justified and those who provide justification?

Research Question 4: How do coaches typically respond when their athletes exhibit hostile aggression?

Methods

Participants

Participants were high school sport coaches ($N = 449$) who were recruited from four statewide athletic associations representing multiple regions within the United States (West, Midwest, Southwest, Southeast). The sample included male ($n = 278$) and female ($n = 69$) coaches (102 did not disclose gender) who ranged in age from 24 to 74 years ($M = 46.80$, $SD = 11.68$), with 1 to 50 years of coaching experience ($M = 20.59$, $SD = 11.71$). They coached male athletes ($n = 104$), female athletes ($n = 79$), or both ($n = 165$). They represented 20 different sports, contact ($n = 224$) and non-contact sports ($n = 235$). The sports most highly represented were football ($n = 114$), track and field ($n = 109$), and basketball ($n = 101$). Of these 449 coaches, 252 reported that they coached more than one sport. Because the coaching efficacy scale II-high school teams (CES II-HST) instructions require coaches to reflect on "the current team" that they coach, those who reported coaching more than one sport at that time were excluded from the analysis involving coaching efficacy and moral disengagement as it was impossible to determine which team they were referring to when completing the CES II-HST questionnaire. Thus, the sample for the first research question included 197 coaches. This included male ($n = 141$) and female ($n = 54$) coaches (two did not disclose gender) who ranged in age from 24 to 72 years ($M = 46.10$, $SD = 11.95$) and had 1 to 46 years of coaching experience ($M = 19.12$, $SD = 12.04$). They either coached male athletes ($n = 63$), female athletes ($n = 63$), or both ($n = 71$). Participants coached contact ($n = 99$) or non-contact sports ($n = 98$), with basketball ($n = 37$), football ($n = 33$), and track and field ($n = 29$) being the most represented sports.

Measures

The CES II-HST. The CES II-HST was used to measure the perceived coaching efficacy of high school coaches.[14] The 18-item CES II-HST consists of five subscales that are used to measure coaches' efficacy in the areas of motivation, teaching technique, game strategy, character building, and physical conditioning. Scores are calculated by finding an average for each of the five subscales, as well as an average of all 18 questions to provide an overall coaching efficacy score. The CES II-HST uses the stem, "in relation to the team that you are currently coaching, how confident are you in your ability to..." and responses are scored on a 4-point Likert type scale that ranges from 1 (low confidence) to 4 (high confidence). An example of an item in the CES II-HST is, "In relation to the team that you are currently coaching, how confident are you in your ability to effectively instill an attitude of respect for others in your athletes?" Evidence for close model-data fit for the CES-II HST has been demonstrated in a study of 549 high school coaches, suggesting validity of the scale when used with this population.[14] Cronbach's alphas for the CES-II HST ranged from .73 to .83, suggesting the scale has sufficient reliability.[14]

The moral disengagement in sport scale. The moral disengagement in sport scale (MDSS) was used to assess the moral disengagement of high school sport coaches.[24] The 32-item questionnaire uses a 7-point Likert type scale (1 = strongly disagree, 7 = strongly agree) to measure each of the eight mechanisms of moral disengagement based on coaches' responses to mechanism-specific items (i.e. "Some opponents deserve to be treated like animals" measures *dehumanization*). A moral disengagement score was computed using the average of the responses to the 32 items.

The convergent, concurrent, and discriminant validity of the MDSS has been supported.[24] Convergent validity was established via the correlation found between societal moral disengagement and sport moral disengagement as measured by the MDSS, $r = .71$, $p < .01$. In order to assess concurrent validity, Boardley and Kavussanu[24] measured the correlation between moral disengagement and behavior types, as previous research has suggested that moral disengagement should be positively correlated with antisocial behaviors and negatively associated with prosocial behaviors. Moral disengagement was found to be positively related to antisocial behavior ($r = .60$, $p < .01$) and negatively related to prosocial behaviors ($r = -.31$, $p < .01$), thus confirming concurrent validity of the scale. Additionally, in a study of 305 participants, discriminant validity varied between subscales as intercorrelations ranged from .66 to .91, suggesting some redundancy between certain sets of subscales.[25] Despite these intercorrelations, the MDSS is still considered to have reasonable validity as a measure of moral disengagement in sport. Finally, the Cronbach's alpha coefficients for the MDSS range from .73 to .95, suggesting good reliability.[24]

Though the MDSS has been normed and validated within athlete populations, it had yet to be used with coaches before this study. Minor adjustments were made to the wording of the introduction and the items when necessary to make it relevant to high school coaches. However, there were very few adjustments made because the items were fairly general and could be applicable to individuals in various roles within the context of sport. The Cronbach's alpha coefficient for the MDSS used with the current sample was .95, demonstrating high internal consistency (Cronbach's alpha coefficient greater than 0.80) and strong reliability.[26]

Hostile aggression responses. For this study, a questionnaire was developed to understand coaches' beliefs about hostile aggression and how they typically respond to their athletes' hostile aggression. Definitions for hostile and instrumental aggression were provided at the beginning of the questionnaire to ensure that participants understood what was meant by *hostile aggression*. The questionnaire then prompted coaches to draw upon the instances that they recalled observing hostile aggression. The first open-ended question asked coaches to describe when they believed hostile aggression was justified. The second question required coaches to explain the consequences that they typically implement with athletes on their team when the athletes exhibit hostile aggression.

Demographic questionnaire. A demographic questionnaire was also included in the survey. This questionnaire inquired about the respondent's gender, age, years of coaching experience, sport(s) coached, and gender(s) coached.

Procedure

Upon gaining IRB approval, e-mails were sent to the executive directors of 11 high school coaching associations. The e-mails included a description of the study, an explanation of the importance and application of the research, and a request for approval to survey members of the association. Executive directors of four of the coaching associations provided approval letters. These executive directors were then provided with the link to an online survey that would be sent to the aforementioned members of their respective associations along with basic descriptive information about the study, and asked to send the information to their coaches. Upon completing the informed consent, participants were able to anonymously complete the MDSS, the CES II-HST, the hostile aggression questions, and the demographic questionnaire at their convenience on the secure survey website. The questionnaires were presented in random order to the coaches in order to reduce order effects.

Data analysis

As this was a mixed-methods study, both qualitative and quantitative analyses were used. To address the first research question, hierarchical regression analyses were conducted to determine if there was an association between coaching efficacy and moral disengagement among high school coaches while controlling for years of coaching experience, gender, gender coached, and the type of sport coached (contact or non-contact). The second and fourth research questions addressed when coaches believe hostile aggression is justified and what consequences they implement for athlete who exhibit hostile aggression, respectively. Both research questions were analyzed using a conventional qualitative content analysis approach, underpinned by epistemological constructionism (knowledge is socially constructed and subjective) and ontological relativism (reality is mind-dependent and created by individuals). A conventional content analysis was used in this case because no theory or research currently exists that explains coaches' responses to athletes' hostile aggression, thus the researchers determined it was best to implement inductive category development.[27] Using this approach, the primary researcher sorted participants' written responses to the two open-ended questions into categories based upon the responses.[28,29]

Two additional investigators, both graduate students with education in, and an understanding of, sport psychology and coaching, then served as "critical friends" who provided feedback, challenged the primary researcher's construction of knowledge, and encouraged the primary researcher to explore alternative explanations as recommended by Smith and McGannon.[30] Based on the categories developed by the primary researcher and critical friends, the third research question was addressed using multiple analysis of variance to identify differences in moral disengagement and coaching efficacy scores based on whether or not coaches justified hostile aggression in their open-ended responses. The researchers believe that based on the context and purpose of this particular study, the qualitative methods employed demonstrate quality research as they meet the following criteria: worthy topic, ethics, fidelity to the subject matter, critical friends, and contribution of the research.[30]

Results

Research question 1: Coaching efficacy and moral disengagement

Hierarchical regression analyses were conducted to assess the relationship between overall coaching efficacy and moral disengagement, as well as the relationship between moral disengagement and each of the five individual dimensions of coaching efficacy, while controlling for other coaching-related variables that may influence these relationships. Outlying scores were excluded from both the MDSS ($n = 4$) and CES II-HST (considered outlier if z-score $> |3|$), though the CES II-HST presented no outliers. Before performing the regression analyses, bivariate correlations were conducted to identify pre-existing relationships between moral disengagement, dimensions of coaching efficacy, and the variables of coaching experience, gender, gender of the athletes coached, type of sport coached (contact or non-contact). According to Cohen,[31] correlations of .10, .30, and .50 represent small, medium, and large effect sizes, respectfully. Based on this standard, years of coaching experience and total moral disengagement both had weak to moderate associations with total coaching efficacy and most dimensions of coaching efficacy. Gender, gender of the athletes coached, and the type of sport coaches had very little association with coaching efficacy. The complete results of the bivariate correlations can be seen in Table 1. The aforementioned variables were included in the regression analyses to allow for the most accurate assessment of the influence of moral disengagement on the outcome variables.

In the first step of each regression analysis, years of coaching experience, gender, gender of the athletes

Table 1. Correlations coefficient matrix for coach variables, moral disengagement, and perceived coaching efficacy.

	Years coaching	Gender	Gender coached	Type of Sport	Total MD	Total CE	Motivation PERCEIVED COACHING EFFICACY	Game strategy PERCEIVED COACHING EFFICACY	Teaching Technique PERCEIVED COACHING EFFICACY	Character building PERCEIVED COACHING EFFICACY	Physical conditioning PERCEIVED COACHING EFFICACY
Years Coaching	–										
Gender	−.220[a]	–									
Gender Coached	−0.10	.175[b]	–								
Type of Sport	0.06	−.407[a]	−.436[a]	–							
Total MD	−.175[b]	−0.09	−0.09	0.11	–						
Total CE	.246[a]	−0.14	−0.09	0.07	−.231[a]	–					
Motivation CE	.199[a]	−0.12	−0.10	0.03	−.289[a]	.871[a]	–				
Game Strategy CE	.283[a]	-.189[b]	-0.10	0.08	−.159[b]	.866[a]	.732[a]	–			
Teaching Technique CE	.207[a]	−0.07	−0.11	0.13	−0.13	.804[a]	.616[a]	.690[a]	–		
Character Building CE	0.12	−0.09	−0.04	−0.01	−.190[b]	.751[a]	.628[a]	.532[a]	.424[a]	–	
Physical Conditioning CE	.197[a]	−0.12	−0.01	0.04	−.179[b]	.796[a]	.583[a]	.589[a]	.556[a]	.509[a]	–

[a]Correlation is significant at the 0.01 level (two-tailed).
[b]Correlation is significant at the 0.05 level (two-tailed).
MD: moral disengagement, PCE: perceived coaching efficacy.

coached, and type of sport coached were entered to control for the variability in coaching efficacy associated with these variables. Moral disengagement was entered in the second step. The results suggested strong significant associations between coaches' moral disengagement and total coaching efficacy. Regarding the specific dimensions of coaching efficacy, moral disengagement was significantly associated with motivation efficacy, charter building efficacy, and physical conditioning efficacy, but not significantly associated with game strategy efficacy or technique efficacy. In assessing the influence of the four individual descriptive variables, years of coaching experience was the only variable that was significantly associated with total coaching efficacy and nearly all individual dimensions of coaching efficacy (excluding character building efficacy). Results of the hierarchical regression can be seen in Table 2.

Research question 2: Coaches' justifications for hostile aggression

To address Research Question 2, a conventional qualitative content analysis was used to explore coaches' beliefs about when hostile aggression was justified. The primary researcher coded and categorized the coaches' responses, establishing seven distinct instances in which coaches reported that they believed hostile aggression is justified. Upon conferring with two critical friends, their interpretation of the coaches' responses aligned well with that of the primary researcher. The most common responses coaches gave to this question were that hostile aggression is never justified, and the next most common response was that it is justified when used in sport to protect one's self or others. The seven themes that emerged from coaches' responses, as well as examples of their responses, can be found in Table 3.

Research question 3: Differences in coaches' moral disengagement and coaching efficacy scores based on justification for hostile aggression

Continuing in this exploratory vein, the researchers also conducted a MANOVA identifying differences in coaching efficacy and moral disengagement between coaches who reported that hostile aggression is "never justified" and coaches who provided a justification for hostile aggression in sports. Results demonstrated that whether or not coaches justified hostile aggression had a significant association with their moral disengagement (F (1, 257) = 33.77; $p < .001$; partial $\eta^2 = .12$), but no significant association with their perceived coaching efficacy (F (1, 257) = 1.60; $p < .05$; partial $\eta^2 = .01$). Group means show that coaches who justified hostile aggression had higher mean moral disengagement scores than those who did not believe hostile aggression was ever justified. Table 4 presents the mean moral disengagement scores and coaching efficacy scores of coaches who did and did not justify hostile aggression.

Research question 4: Coaches' consequences for hostile aggression

To address Research Question 3, a conventional qualitative content analysis was used to explore the consequences implemented by coaches for athletes who exhibit hostile aggression. The primary researcher coded and categorized the coaches' responses, establishing 17 distinct categories of consequences that the coaches reported implementing. Upon conferring with two critical friends, the types of consequences were condensed into 13 categories. This quantity of categories falls into the range of 10 to 15 categories suggested in order to maintain clusters broad enough to sort large numbers of codes.[32] The results of the qualitative analyses and examples of the coaches' responses can be found in Table 5.

Discussion

This study is foundational in the exploration of (1) coaches' moral disengagement as it relates to their coaching efficacy, (2) coaches' beliefs about when hostile aggression is justified, and (3) the consequences that coaches implement for athletes who display acts of hostile aggression. The results suggest that coaches' moral disengagement had some influence on coaches' perceived total coaching efficacy, game strategy efficacy, and character building efficacy when controlling for demographic factors. Results also suggest that coaches reported a range of justifications for and responses to athletes' hostile aggression, taking approaches that include positive punishment, negative punishment, and methods that focus on character development.

Moral disengagement and coaching efficacy

The association between high school coaches' moral disengagement and their perceived coaching efficacy provides information about these aspects of personality and behavior and their relationship to one another. First, coaching experience (in years) appeared to play an important role in perceived coaching efficacy based on the results, suggesting that a coaches' efficacy may improve over time. The negative association found between coaches' moral disengagement and total coaching efficacy suggests that a coach's tendency to take responsibility for his or her actions plays a role

Table 2. Hierarchical regression analysis for coach variables and coaching efficacy.

Variable	*B*	*SE B*	β	*t*	Sig *p*	R^2_{change}	F_{change}
Total coaching efficacy							
Step 1						0.07	3.10
Years coaching	0.01	0.00	0.23	2.87	0.00		
Gender	−0.08	0.08	−0.08	−0.95	0.35		
Gender coached	−0.01	0.04	−0.03	−0.32	0.75		
Type of sport coached	0.01	0.08	0.01	0.17	0.87		
Step 2						0.05	8.93
Moral disengagement	−0.04	0.01	−0.23	−2.99	0.00		
Motivation efficacy							
Step 1						0.04	1.82
Years coaching	0.01	0.00	0.16	1.93	0.06		
Gender	−0.10	0.11	−0.08	−0.95	0.34		
Gender coached	−0.05	0.06	−0.07	−0.88	0.38		
Type of sport coached	−0.04	0.10	−0.03	−0.37	0.71		
Step 2						0.08	14.53
Moral disengagement	−0.07	0.02	−0.29	−3.81	0.00		
Game strategy efficacy							
Step 1						0.10	4.40
Years coaching	0.01	0.00	0.25	3.25	0.00		
Gender	−0.14	0.10	−0.12	−1.36	0.18		
Gender coached	−0.03	0.05	−0.05	−0.56	0.58		
Type of sport coached	0.01	0.09	0.01	0.12	0.91		
Step 2						0.02	3.30
Moral disengagement	−0.03	0.02	−0.14	−1.82	0.07		
Teaching technique efficacy							
Step 1						0.05	2.26
Years coaching	0.01	0.00	0.20	2.51	0.01		
Gender	0.02	0.10	0.01	0.17	0.87		
Gender coached	−0.02	0.06	−0.02	−0.27	0.78		
Type of sport coached	0.11	0.10	0.10	1.09	0.28		
Step 2						0.01	2.39
Moral disengagement	−0.03	0.02	−0.12	−1.54	0.12		
Character building efficacy							
Step 1						0.02	0.89
Years coaching	0.00	0.00	0.10	1.22	0.23		
Gender	−0.11	0.10	−0.09	−1.07	0.29		
Gender coached	−0.01	0.05	−0.01	−0.13	0.90		
Type of sport coached	−0.07	0.09	−0.07	−0.72	0.47		
Step 2						0.04	6.66
Moral disengagement	−0.04	0.02	−0.20	−2.58	0.01		
Physical conditioning efficacy							
Step 1						0.06	2.59
Years coaching	0.01	0.00	0.22	2.77	0.01		
Gender	−0.07	0.11	−0.06	−0.66	0.51		
Gender coached	0.03	0.06	0.04	0.53	0.60		
Type of sport coached	0.05	0.10	0.05	0.53	0.60		
Step 2						0.03	5.22
Moral disengagement	−0.04	0.02	−0.18	−2.29	0.02		

Table 3. Coaches' reports of when they believe hostile aggression is justified.

Instances when hostile aggression is justified
Never
"I don't believe someone can justify intentionally causing pain or (especially) injury in an athletic contest"
"Has no place in athletics"
For protection during sport (of self or teammate)
"If another team is attacking a teammate, I expect for my team to stick up for them"
Life threatening situations only (inside or outside of sport unspecified)
"If someone's life is endangered"
Acceptable in sports on occasion (unspecified)
"When players are pushing each other to be better, there will naturally be some hostility. If everyone is comfortable they are not getting better"
Retaliating against an opponent who exhibits hostile aggression first
"When another athlete cheap-shots"
When provoked
"When provoked"
When officials are not doing their jobs
"Officials not calling the game properly"

Table 4. Coaches' mean MDSS and CES scores by justification for hostile aggression.

	Hostile aggression justified	Mean	Standard deviation
MDSS	Never	3.10	3.10
	Justified	5.91	2.00
CES	Never	3.34	.42
	Justified	3.26	.48

MDSS: moral disengagement in sport scale; CES: coaching efficacy scale.

Table 5. Coaches' reports of responses to athlete hostile aggression.

Consequences
Reduced playing time
"Loss of playing time . . ."
"Depends on the situation, but they want to play and if you put them on the bench, it is a valuable teaching tool"
Conditioning/physical consequence
"Running or conditioning"
"Physical activity, such as up downs or extra running"
Removed from game/situation
"Taken out of the game"
"Removal from the contest/practice"
Verbal interaction (reprimand/discussion)
"Mostly it's just a stern talking to . . ."
"Discussion on why it is wrong . . ."
Suspension/dismissal
"Suspension from the team"
"Extreme measures would result in being kicked off the team"
Apology by athlete
". . . An apology to the opponent (either personally, or to a team), the officials, and his own team is an absolute requirement"
"Apologies to the person who was the target"
Parent involvement
"Meeting with parent(s) and administration"
"Advising parents of what the athlete has done"
Work with athlete to change behavior
"A meeting with the athlete outlining the issue at hand and then a plan of action to correct the issue"
". . . a discussion with me about the behavior"
Reduced practice time
"Sitting out of practice (or competition) . . ."
"Time lost at practice . . ."
Extra practice time/extra responsibilities
"We have the player(s) get extra reps with their position coach and I, after practice, for a week"
"Extra duties at practice"
Counseling
"In extreme cases, counseling"
"I talk with the counselor and give them a heads up about the student"
Educated on aggression/sportsmanship
"Athlete will . . . take a mandatory online class about sportsmanship"
". . . forced to take a class through the state"
Other
"Depends on what happened"
"Coaching contract"
"It will never be set in stone. Each situation is unique"

in his or her perceived effectiveness as a coach. Of all the aspects of perceived coaching efficacy, moral disengagement had the greatest association with coaches' motivation efficacy. In explaining this relationship, it is possible that those who are able to accept responsibility for their actions without attempting to avoid the moral implications are also better able to adhere to a more genuine approach to motivating their athletes. Those who are more confident in their actions may also have a stronger belief that they are setting a positive example for their athletes through their behaviors and decisions, supporting the inverse relationship between moral disengagement and character building efficacy. In relation to the other aspects of perceived coaching efficacy, moral disengagement appeared to have a strong negative association with coaches' physical conditioning efficacy. This unexpected finding may be attributed to some coaches' overall confidence in their efficacy, which can also include the development of effective programming. Lastly, moral disengagement had a limited association with coaches' perceived coaching efficacy regarding their ability to strategize

for games and to teach technique. Based on these findings, it seems that high school coaches' moral disengagement has a more prevalent connection to interpersonal and psychological aspects of coaching (i.e. motivation, character building) than it does on intellectual aspects such as planning, teaching, and explaining.

Considering these findings regarding moral disengagement and perceived coaching efficacy, it is important to reflect upon the influence that coaches have on their athletes. It seems that coaches' own tendencies to take responsibility for their actions and accept the moral implications of behaviors, good or bad, are significant components in the development of their athletes. This is particularly relevant when coaching youth and adolescent athletes, whose beliefs and actions are liable to be heavily molded by their observations of and interactions with their coaches. These findings emphasize the importance of coaches' moral disengagement in relation to their perceived coaching efficacy, which influences athletes' likelihood to be aggressive towards others.[15,16] Though previous research has addressed influences on and the role of perceived coaching efficacy, the present findings lay the groundwork for future research assessing coaches' moral disengagement as it relates to their coaching efficacy.[25,33]

Coaches' justifications for hostile aggression

The way in which coaches justify the use of hostile aggression within sport is an important but undermined consideration, as it may or may not inform the consequences that they implement with athletes who exhibit hostile aggressive behaviors. An overwhelming majority of coaches in this study reported that hostile aggression was never justified within a sport setting, suggesting that there is little or no tolerance for this sort of behavior among high school coaches. The most common instance when coaches believed athletes' hostile aggression was justified in a sport context was when they needed to protect themselves or a teammate, typically against an opponent. A small number of coaches reported that this behavior was an acceptable response when retaliating against an opponent. Though each of these justifications involves a response to an individual in a sport context (typically an opponent), it seems that coaches are more likely to accept athletes' hostile aggressive behaviors when the motive is *protection* rather than *retaliation*. Even fewer coaches suggested provocation as a valid reason to exhibit hostile aggression. Provocation is a behavior that the victim feels is aversive or unpleasant, and which can spur feelings of anger, frustration, or fear.[34] The way an athlete responds to this may be viewed as an emotional reaction rather than a thought-out action, and possibly even as a "loss" incurred by allowing someone else to elicit that response. According to Bandura's SLT, athletes who react this way have observed someone react in similar ways and in similar situations, or have been rewarded or gone unpunished for the same behavior.[18]

Additionally, significant differences in moral disengagement levels were found between coaches who did and did not justify hostile aggression. Coaches who cited one of the aforementioned reasons as justification for athletes' hostile aggression had higher levels of moral disengagement than coaches who reported that hostile aggression was never acceptable in sport. This finding highlights the importance of exploring and understanding coaches' justifications for their athletes (and their own) seemingly immoral actions, as this can have an influence on the example that they set and the messages they communicate to their athletes regarding aggressive behaviors.

Coaches' consequences for hostile aggression

Instances in which coaches choose to discipline their athletes present opportunities for short-term behavioral changes as well as long-term character development in their athletes, and the disciplinary actions taken in response to hostile aggression are no different. Most outstanding coaches emphasize not only sport performance, but the development of their athletes as people.[35–37] The range of consequences that coaches in this study described themselves implementing with athletes who exhibit hostile aggression included the addition of undesirable activities (positive punishment), the removal of desirables (negative punishment), and consequences that actively aimed to build character or help the athlete to develop as a person.

The primary consequences for hostile aggression reported by high school coaches were a reduction in the athlete's involvement in competition (i.e. reduced playing time, suspension) and the addition of physical punishment, while far fewer coaches reported what could be considered a character development-oriented response to aggression (i.e. required apology, counseling, working with athlete to change behavior). While reduced playing time and physical conditioning may be effective in reducing aggressive behavior short-term, there is little support for the effectiveness of zero-tolerance penalties (severe consequences regardless of circumstances) in reducing unwanted behavior in the long term.[38] Additionally, physical conditioning is a widely accepted form of punishment in sport despite the negative physical and psychological effects that extreme conditioning can lead to, including physical harm (sometimes severe injury or death) and a reduced enjoyment of sport participation.[39–42] Coaches may

take these disciplinary approaches based on their prior beliefs and experiences, as many likely experienced similar consequences themselves when they were athletes. While these consequences may be helpful short-term, coaches should also factor in the potential long-term benefits that their responses to athletes' hostile aggression can have on the athletes themselves.

Several coaches in the current study described responding to their athletes' hostile aggression through strategies that focused on character building and/or behavior change: requiring an apology from the athlete to whomever was affected (opponents, officials, teammates), educating the athlete on aggression or sportsmanship, personally working with the athlete to change his or her behaviors, or requiring the athlete to seek counseling. These responses to athletes' aggressive behaviors align with the strategies employed by highly esteemed coaches. In a study of award-winning high school football coaches, Gould et al.[35] found that these coaches employ various strategies to help players implement life skills, including teaching positive skills and values. Strategies that these outstanding coaches used to teach skills and values included appealing to the athletes' morals, teaching them to ignore provocation by others, and talking to their athletes about discipline. Coaches in the current study also very frequently reported that they immediately removed the aggressive athlete from the situation afterwards. This aligns with actions that award-winning football coaches reported as well (providing athletes with a "cool down" period) in order to hold athletes accountable for their actions via rule infractions.[35] Lastly, responses of outstanding coaches suggested that it is not just the disciplinary action that is important, but that athletes understand the discipline and the reasoning behind it.[35] While this was not addressed specifically in the current study, it is an important consideration for coaches who are aiming to help their athletes to build character and/or make positive long-term adjustments to their behaviors.

Implications

The current findings have applied implications for high school sport coaches, coach educators, and sport psychology practitioners who may work with them. First, considering the relationship between coaching efficacy and coaches' moral disengagement, coaches should be encouraged to think about their moral beliefs and their commitment to those beliefs in coaching situations. This may be particularly salient in coaching education programs that already address ethical issues and challenges in sport, and should also be considered as coaches develop their coaching philosophies. Secondly, the identification of consequences coaches implement with athletes who exhibit hostile aggression highlights the need for potential additional coaching education in this area. More information about how to garner desired behavior change may be beneficial, assuming this is a goal that coaches are trying to achieve via the consequences they implement with their athletes. Particularly considering the frequency of reduced practice and playing time, as well as conditioning, as reported punishments for hostile aggressive behavior, *positive discipline* may be one approach to present to coaches. Strategies of positive discipline within the field of education include educators reflecting on goals for teaching self-discipline, reflecting on attitudes toward students, thinking about the causes of misbehavior and responding to students as individuals, and encouraging students to process the decisions they made, learn from mistakes, and model caring in action.[44,45] These strategies can be translated to high school sporting environments and be used by (or continued to be used by) coaches, who should be educated on how to effectively apply the aforementioned techniques with their athletes.

Limitations and future research

While the findings of the present study are beneficial for coaches and other important stakeholders within sports, they need to be considered in light of the limitations that were present. First, the data were cross-sectional and self-report, thus no causal relationships can be confirmed. Future research in this area should incorporate the observation of coaches and their immediate responses to athletes' hostile aggression. Another limitation was the generality of the two open-ended questions that were asked of coaches regarding (1) when they believed athlete hostile aggression as justified, and (2) what consequences they typically implemented with athletes who exhibited hostile aggression. The broad wording of the question regarding the justification of hostile aggression led to responses that were occasionally irrelevant to sport (i.e. "if someone's life is endangered"), and the question of consequences implemented frequently incurred multiple or vague responses (i.e. "it depends"). Thus, using the data from this study, future research should include the development of an instrument to objectively measure coaches' views and responses to athletes' hostile aggression. Additional suggestions for future research include expanding it to include coaches from all levels of sport, as well as an assessment of the influence of coaches' consequences on athletes' short-term and long-term behaviors. A system of assessment that measures coaches' actual behaviors in this domain, similar to the widely-used coaching behavior assessment system (CBAS), would

be a positive step in further understanding coaches' responses to athletes' hostile aggression.[45]

Conclusion

High school sport coaches hold an influential role in the decisions that their athletes make in the sporting arena, as well as the growth and development of their athletes outside of sport. Their coaching efficacy as well as their own beliefs and actions are important factors when it comes to the behavior of their athletes, including their athletes' use of hostile aggression. As coach Mike Krzyzewski has said, ''there is no playbook'' for how to manage athletes' unwanted behaviors. This is not something that coaches are necessarily trained to deal with. Therefore, coaches' decisions are subjective, and it is undeniable that coaches would benefit from more guidance and support when it comes to handling their athletes' hostile aggression.

Acknowledgements

Thanks are extended to Oscar Sandoval and Raymond Cisneros for their effort and contributions in coding responses for this project.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Data availability

The data generated and analysed during the current study are available from the corresponding author on reasonable request.

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