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## **The Influence of the Coach's Perceived Leadership Style and Behavior on Athletes' Aggression and Well-Being**

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### **ABSTRACT**

Coaches play an important role in developing athletes in terms of skills, techniques and performance. Coaches differ in the way they lead and train the athletes, and yet there is a lack of study in Malaysia which investigates the significance of these coach characteristics on the mental health of athletes. The aim of this study was to examine the influence of coach's perceived leadership style and behavior on the level of young athletes' aggression and well-being. This cross-sectional study targeted young athletes aged between 14-35 years old. Apart from demographic information, the following questionnaires were used: Leadership Scale for Sports, Aggression Scale, Warwick-Edinburgh Mental Well-being Scale, and the Patient Health Questionnaire-9. A total of 150 participants responded to the pen-and-paper survey (75 children and 75 adults). Two multiple regression models were fitted. The results showed that aggression was significantly predicted by well-being ( $\beta=-0.194$ ,  $p=0.016$ ) and depression ( $\beta=-0.335$ ,  $p<0.001$ ); training and instruction ( $\beta=0.345$ ,  $p=0.003$ ) and aggression ( $\beta=-0.234$ ,  $p=0.002$ ) significantly predicted well-being. The implications of this study were that coaches should be made aware that their leadership and behavior may have an influence on the well-being of the athletes. Coaches should be enhanced in their ability to provide training and instruction behavior when conducting their training activities to improve athletes' skills, techniques and tactics.

**Keywords:** Coach; leadership style; athlete; aggression; well-being

### **INTRODUCTION**

According to the National Sports Policy (2009), Malaysia envisions to create a sports culture among the people of Malaysia and to use it as a platform to strengthen Malaysian integration. In the policy, it was written that the Youth and Sports Department will provide the expertise to train coaches, and also to contribute to the welfare of the athletes and the coaches by funding sports programs and activities for athletes, coaches and officials. In addition, they have to ensure that the coaches or the leader in a sports organization will be developed and strengthened in order to enhance the quality of national sports. Thus, coaches and the government play a major role in developing athletes.

In Malaysia, inadequate youth development programs and funding may result in failure to develop a larger number of elite athletes (Price, 2017). According to Mazer et al. (2013), coaches play an important role in developing athletes in terms of skills, techniques and performance as well as psychological well-being, and coach education has received greater attention recently (Krasilshchikov, 2015). Coaches also serve as a positive role model to athletes to ensure that the training that the athletes

receive could transform into success in the arena (Ahmad Radzi et al., 2021). However, coaches in Malaysia are not receiving proper accreditation had a lack of proper and sufficient training (Karim & Razak, 2018). There are some key challenges which impede the activities of coaches in Malaysia which are being uncertain in their coaching direction, limited opportunities and an education curriculum for coaches (Karim, 2016). These factors may lead to ineffective coaching styles and behaviors.

Ineffective coaching styles and behaviors were related with athletes having lower motivation, higher aggressiveness (Alexandra et al., 2015), higher rates of depression (Rao & Hong, 2015), and lower mental well-being among athletes (Amorose et al., 2016). According to the Multidimensional Model of leadership (MML) proposed by Chelladurai and Saleh (1980), there are five different types of instructor's leadership style and behavior which are: democratic, autocratic, training and instruction, positive feedback and social support. It has been reported that, in a sports setting, athletes have shown that they want their instructor to have more training and instruction behaviors, provide positive feedback, showing democratic behaviors and giving social support, but not autocratic behaviors. This is because autocratic behavior will increase cognitive anxiety among the athletes and decrease the athletes' performance (Heil, 2018). Autocratic leadership style has led to a decreased of motivation among athletes, and has caused lower performance compared to the other four leadership styles and behaviors (Borghi et al., 2017).

Aggression or aggressive behavior are common among athletes, coaches and also among the spectators, and aggressive behavior in the sports context can often lead to violent actions by the athletes during competition or during a sports event (Morren & Meesters, 2002). Aggressive behaviors are often being reflected in the competitions by the athletes in different forms or processes such as using threatening language against an opponent or the referee, having negative self-talk which can cause poor performance, provoking the opposing team and exhibiting antisocial behavior (Sofia & Cruz, 2017). Thus, when there is aggression within the athlete, the athletes may have the intention to harm others including their teammates, referees and opposing teams by employing different forms of aggression such as verbal, physical and psychological aggression (Singh, 2018). Studies have shown that athletes involved in higher levels of physical contact and from younger competitive categories will have a higher level of aggressiveness compared to those athletes who were involved in lower levels of physical contact and participating in higher competitive levels (Sofia & Cruz, 2017; Sherrill & Bradel, 2017). In addition, it has also been shown that male athletes have a higher risk for exhibiting aggression compared to female athletes (Elmasry et al., 2016; Sofia & Cruz, 2015). Aggression may be deleterious on the well-being of the athlete and those around them. This may in turn shorten the lifespan of the athletes in the sports arena, which spent time and effort to train the athlete.

Well-being is an important topic of among athletes because being a young athlete can be a good experience as it helps to lead to a positive character and physical development, whilst being in a stressful and pressuring environment as an athlete will have a negative effect on one's well-being as well as motivation (Stenling & Lindwall, 2015). Athletes who have a higher level of well-being will have lower performance anxiety, higher perceived competence, higher sports satisfaction, higher intrinsic motivation, and lower stress compared to athletes that have lower well-being (Alvarez et al., 2012). On the other hand, a coach's behavior may lead to depression among athletes (Cho et al., 2019). A study showed that basketball athletes on wheelchair preferred training and instruction and positive feedback styles, and these were related to different dimensions of the athletes' well-being (Jooste & Kubayi, 2018).

There is currently a lack of studies in Malaysia which investigated the relationship between the coach's leadership style, athletes' aggression and well-being levels. Understanding the relationship may help in establishing relevant training programs for coaches to exhibit the leadership styles which will lead to the athletes' increased well-being and decreased aggression. Therefore, this study aimed to examine the influence of the perceived leadership style of the coach and the athletes' aggression and well-being levels.

## **METHODS**

### **Participants**

In this research, the targeted sample will be young athletes aged between 14-35 years old. The inclusion criteria will be athletes who play individual and team sports such as running, basketball, football, badminton and table tennis. Besides that, the athletes will need to have at least an hour of practice or training with a coach in a week for the last one month. The sampling method for this research will be using the purposive sampling method.

According to Tabachnick & Fidell (2013), the rule-of-thumb for determining sample size for a regression model is  $N > 50 + 8m$  (where  $m$  refers to the number of independent variables). This study consists of 12 variables, which results in a minimum sample of  $N > 146$ .

### **Measures**

Demographic and training information such as age, ethnicity, gender, type of sports, representation level, and hours spent on training are collected.

Leadership Scale for Sports (Chelladurai & Saleh, 1980). This scale was used to identify the participants' perceived leadership style that they have onto their coach or coaches. It is a 40-item questionnaire that will measure five different dimensions of leadership behaviors, which were Training and Instruction, Democratic Behaviors, Autocratic Behavior, Social Support, and Positive Feedback. The items in this scale were scored on a 5-point Likert type scale with anchors of 1= Never and 5= Always; higher scores indicated a higher level of the leadership dimension. This scale has coefficients ranging from 0.71 to 0.82 for test-retest reliability, and has a Cronbach's alpha above 0.70 for the five sub-dimensions except the autocratic subscale (Humphery, 2008).

Aggression Scale (Buss & Perry, 1992). This was a 29-item questionnaire that measured four different domains of aggression, which were Physical Aggression (PA), Verbal Aggression (VA), and Hostility (H). The items in this scale were scored on a 5- point Likert type scale with anchors of 1= extremely uncharacteristic of me and 5= extremely characteristic of me. A Total Aggression score was also derived by summing each individual's ratings across all 29 items. Internal consistency reliabilities reported were as follows: Physical Aggression = 0.85, Verbal Aggression = 0.72, Anger = 0.83, Hostility = 0.77 and the total score = 0.89 (Mckay et al., 2016).

Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2006). The scale was used to identify the participants' well-being level. It was a 14-item questionnaire which was designed to measure positive mental health. The items in this scale were scored on a 5- point Likert type scale with anchors of 1= None of the time, and 5= All of the time. This scale had an acceptable internal consistency reliability (0.87) and an acceptable test-retest reliability (Clarke et al., 2011). The cutoff point for this scale was 40 and below being classified as low mental well-being, 41-58 as normal mental well-being and 59 and above as high mental well-being.

Patient Health Questionnaire-9 (PHQ-9; Kroenke et al., 2002). The scale was used to identify the symptoms of depression. There were nine items in this scale and they were scored on a 4-point Likert type scale with anchors of 0= Not at all and 3= Nearly every day. The scoring of this scale was: 0-4 indicated minimal or no depression, 5-9 mild depression, 10-14 moderate depression, 15-19 moderately severe depression, and 20-27 severe depression. The PHQ-9 has high criterion validity and convergent validity with The Composite International Diagnostic Interview (CIDI) and General Health Questionnaire (GHQ-12) respectively (Sidik et al., 2012). In addition, it has a good internal consistency reliability of Cronbach's alpha = 0.86 (Xia et al., 2019).

### **Procedures**

Data was collected from secondary schools, sports associations and recreational clubs in the Klang Valley that have a coach or coaches to teach and guide the athletes. The method of collecting data was by using the pen and paper survey method. For children aged 14 to 18 years old, informed consent was obtained from the parents/guardians/coaches, and assent was provided by the athletes. Informed consent was provided by all adult athletes. The questionnaire was given to the participants to fill out after

informed consent was obtained. This study adhered to the principles of the Helsinki Declaration on the ethical conduct of research.

### **Statistical Analysis**

Data was entered into and analyzed using the IBM SPSS Statistics for Windows (IBM Corp., Armonk, NY). Descriptive analysis of the data was reported as means and standard deviations (mean  $\pm$  SD) for the continuous variables and frequency and percentage for the categorical variables. Upon determination of the data normality, a correlation analysis was used to examine the relationship between the continuous variables. A multiple linear regression was run to determine the predictive value of leadership style on aggression and well-being. Missing data were deleted list-wise and the significance level was set at  $p < 0.05$ , two tailed.

## **RESULTS**

A total of 150 participants were recruited, out of which most were male (78%), Chinese (83.3%), Buddhists (63.3%), played team sports (78%), had 10 or more hours of practice in the past month (44%), represented their school (47.3%), and were competitive athletes (72.7%). Besides that, most of the participants played in team sports (78%), whilst 33 of them played individual sports (22%). In terms of hours of practice in the past month, most of the participants had practiced 10 hours and more (44%). Besides that, 47.3% represented their school, whilst 19.3% represented their state or country. Lastly, a majority of the participants were competitive athletes (72.7%).

There was a significant difference in aggression between participants aged 14-18 years old ( $86.13 \pm 15.54$ ) and 19-35 years old ( $78.17 \pm 18.21$ ),  $t(148) = 2.879$ ,  $p = 0.005$ . In terms of well-being, there was a significant difference between the ethnic groups,  $F(3, 146) = 3.412$ ,  $p = 0.019$ . Malay participants ( $48.57 \pm 7.56$ ) had a lower well-being score compared to the Chinese ( $55.42 \pm 5.16$ ),  $p = 0.014$ . Individuals with depression symptoms (PHQ-9 score of  $\geq 10$ ) had higher aggression ( $89.14 \pm 14.42$ ,  $t(148) = -5.528$ ,  $p < 0.001$ ) and lower well-being scores ( $47.64 \pm 7.48$ ,  $t(148) = 2.215$ ,  $p = 0.028$ ). (Table 1).

Table 2 displays the internal consistency reliability, mean, standard deviation, and correlation between the scales. Based on the results, all scales achieved an internal consistency reliability of  $> 0.70$ , except for the autocratic subscale, which was at a marginal 0.69. The results of the Pearson correlation showed that aggression was significantly correlated with coach's autocratic leadership style ( $r(150) = 0.227$ ,  $p < 0.001$ ), coach's social support ( $r(150) = 0.166$ ,  $p < 0.05$ ), mental well-being ( $r(150) = -0.221$ ,  $p < 0.01$ ), and depression ( $r(150) = 0.445$ ,  $p < 0.001$ ). On the other hand, well-being was correlated with coach's training and instruction behavior ( $r(150) = 0.482$ ,  $p < 0.001$ ), democratic leadership style ( $r(150) = 0.310$ ,  $p < 0.001$ ), social support ( $r(150) = 0.320$ ,  $p < 0.001$ ), and positive feedback behavior ( $r(150) = 0.410$ ,  $p < 0.001$ ) (Table 2).

A multiple linear regression analysis was run in order to examine whether age group, coach's autocratic leadership style, coach's social support, well-being, and depression significant predictors for aggression. The results showed that the model was significant, and 25% of the variance in aggression was explained by the predictors,  $R^2 = 0.32$ , adjusted  $R^2 = 0.28$ ,  $F(8, 141) = 8.40$ ,  $p < 0.001$ . Aggression was significantly predicted by well-being ( $\beta = -0.194$ ,  $p = 0.016$ ) and depression ( $\beta = 0.335$ ,  $p < 0.001$ ).

A second multiple linear analysis was run to examine whether ethnicity, coach's training and instruction, democratic leadership, social support, positive feedback, and own aggression significantly predicted participant well-being. The model was significant, with 32.3% of the variance in well-being explained by the predictors,  $R^2 = 0.25$ , adjusted  $R^2 = 0.24$ ,  $F(5, 144) = 9.62$ ,  $p < 0.001$ . Only training and instruction ( $\beta = 0.345$ ,  $p = 0.003$ ) and aggression ( $\beta = -0.234$ ,  $p = 0.002$ ) remained significant after adjusting for the influence of other variables (Table 3).

**Table 1:** Frequency and percentage of the participants and associations with aggression and well-being (N=150).

<b>Variables</b>	<b>n (%)</b>	<b>Aggression mean±SD</b>	<b>p</b>	<b>Well-being mean±SD</b>	<b>p</b>
<b>Demographic Profile</b>					
Gender			0.117		0.131
Male	117 (78)	83.33±16.80		49.50±7.36	
Female	33 (22)	77.97±18.80		47.24±8.19	
Age			0.005		0.527
14-18	75 (50)	86.13±15.54		48.61±7.20	
19-35	75 (50)	78.17±18.21		49.40±7.98	
Ethnicity			0.679		0.019
Malay	12 (8)	83.75±21.96		48.57±7.56	
Chinese	125 (83.3)	82.14±17.12		55.42±5.16	
Indian	9 (6)	77.11±16.71		47.78±8.23	
Others	16 (10.7)	89.25±12.42		46.25±5.32	
Depression symptom (score of ≥10 on the Patient Health Questionnaire-9)			<0.001		0.028
With depression symptom	74 (49.3)	89.14±14.42		47.64±7.48	
No depression symptom	76 (50.7)	75.36±17.32		50.34±7.49	
<b>Sports-Related Information</b>					
Type of sports			0.332		0.617
Individual	33 (22)	79.53±22.45		49.63±8.87	
Team	117 (78)	82.91±15.78		48.86±7.25	
Hours of practice in the past month			0.722		0.830
Less than 2	30 (20)	84.07±16.41		48.57±8.67	
3-10	54 (36)	80.89±19.26		49.50±7.17	
10 and more	66 (44)	82.32±16.24		48.80±7.48	
Level of representation			0.177		0.786
None	50 (33.4)	78.80±19.02		49.22±9.11	
School	71 (47.3)	84.38±15.90		48.70±6.57	
State	23 (15.3)	84.74±17.76		50.04±7.04	
Country	6 (4.0)	73.83±13.83		46.83±8.11	
Competition status			0.148		0.967
Competitive	109 (72.7)	83.41±16.33		48.99±7.31	
Non-competitive	41 (27.3)	78.80±19.59		49.05±8.36	

**Table 2:** Internal consistency reliability, mean, standard deviation, and correlation coefficient of the scales.

Variables	Mean± SD	α	1	2	3	4	5	6	7	8
Coach's leadership style and behavior										
Training and instruction (1)	3.67±0.79	0.928	-	0.699* **	0.031	0.514* **	0.700* **	-0.062	0.482* **	-0.037
Democratic (2)	3.22±0.92	0.890		-	0.119	0.653* **	0.602* **	0.112	0.310* **	0.111
Autocratic (3)	2.98±0.82	0.690			-	0.152	0.093	0.227* *	-0.004	0.417* **
Social support (4)	3.16±0.90	0.884				-	0.580* **	0.166* **	0.320* **	0.169* **
Positive feedback (5)	3.59±0.84	0.802					-	0.114	0.410* **	-0.023
Participants' characteristics										
Aggression (6)	82.15±17.34	0.895						-	-0.445* **	0.221* *
Mental well-being (7)	49.01±7.58	0.843							-	-0.202
Depression (8)	10.24±6.05	0.868								-

**Table 3:** Multiple linear regression analysis of factors predicting aggression and well-being.

Variable	Aggression <sup>a</sup>				Well-being <sup>b</sup>						
	B	95% CI		β	p	Variable	B	95% CI		β	p
		Upper	Lower					Upper	Lower		
Constant	83.80					Constant	38.96				
Age						Ethnicity					
14-16 years old (ref)						Chinese	0.70	-5.84	7.23	0.03	0.834
18-35 years old	-3.46	-8.63	1.71	-0.10	0.188	Malay	4.35	-3.14	11.84	0.16	0.253
Autocratic style	1.09	-2.25	4.43	0.05	0.518	Indian	-1.01	-8.84	6.81	-0.03	0.798
Social support	2.77	-0.26	5.80	0.14	0.073	Others (ref)					
Well-being	-0.44	-0.80	-0.08	-0.19	0.016	Training and instruction	3.32	1.13	5.51	0.35	0.003

Depression	0.96	0.48	1.44	0.33	<0.001	Democratic style	-1.04	-2.90	0.81	-0.13	0.267
						Social support	1.28	-0.36	2.93	0.15	0.125
						Positive feedback	1.30	-0.61	3.21	0.14	0.179
						Aggression	-0.10	-0.17	-0.04	-0.23	0.002

## DISCUSSION

The present study aimed to examine the influence of the perceived leadership style of the coach and the athletes' aggression and well-being. The results revealed that in the fully adjusted model, none of the leadership styles predicted aggression. However, aggression was significantly associated with depression and well-being. On the other hand, training and instruction and aggression significantly predicted well-being.

The importance of training and instruction behaviour of the coach in determining the well-being of the study participants is not surprising as training and instruction behaviour is central to the relationship between the coach and the athlete, and athletes rated this behaviour highly in their coaches (Heil, 2018). When an individual is guided with ways to increase their skills, there may be a sense of self-efficacy and confidence in the athlete. The increase in confidence and self-efficacy may be linked to the lower anxiety among athletes who received training and instruction behavior (Bum & Shin, 2015), and may therefore lead to a higher sense of well-being. Another study has shown that training effectiveness (which may include aspects in training and instruction behaviour) is positively associated with lower anxiety among athletes (Kamis et al., 2021).

The negative relationship between aggression and well-being, even in the fully adjusted models, should be noted. The results are not consistent with a study which reported athletes' aggression does not affect their lives beyond the sporting event (Trinidad & Raizada, 2020). A moderate or optimal level of aggression is expected or encouraged among athletes as a part of the sporting event (Sofia & Cruz, 2017). This study has shown that athletes with a higher level of aggression are also more depressed and have lower well-being. Therefore, aggression is not only a negative influence to society, but also negatively affects individual well-being. The study findings are consistent with another study which found a reciprocal relationship between aggression and depression over time (Blain-Arcaro & Vaillancourt, 2017). The optimal level of aggression among athletes would enhance their competitiveness and vigilance, thus contributing to a better performance among the athletes. However, aggression should be used with caution, as too much aggression would impair the athletes' performance and resulting in unnecessary harm to the competitor.

In addition, nearly half of the participants reported depression symptoms, which is higher than the prevalence of depression reported among the general Malaysian population as reported in the National Health and Morbidity Survey (2.3%; Institute for Public Health, 2020). As this study was not a nationally representative study, we could not draw firm conclusions regarding the prevalence of depression among athletes. However, the results should still serve as an alarming indicator for the relevant authorities to take note, as well as encouraging a nationwide study to further investigate this issue.

The results have implications on the training of coaches. First of all, coaches should be made aware that their leadership and behaviour may have an influence on the well-being of the athletes. Coaches should be enhanced in their ability to provide training and instruction behaviour when conducting their training activities to improve the skills, techniques and tactics employed by the athletes. This includes providing specific instructions to the athletes and coaching them on what to do in different situations during the game (Chelladurai & Salleh, 1980). Even though aggression is a part

of a sporting event, encouraging aggression among athletes may be unethical as it may lead to a negative well-being in the athlete, and athletes may be taught a negative way of dealing with other situations in their lives.

There are a few limitations pertaining to this cross-sectional study. First of all, our study did not employ the stratified random sampling method, and therefore there was the bias of having more Chinese participants. In addition, we had not measured motivation, which may be an important mediating variable in influencing the athletes' aggression and well-being. Future studies should take into account the athlete's level of motivation and include other characteristics of the coach, such as years of experience in coaching and receiving coaching education in the past. In addition, nearly half of the participants exhibited depression symptoms. Therefore, we strongly recommend for future studies to examine further the prevalence of depression among young athletes in Malaysia in a nationally representative study.

## CONCLUSION

The current study adds to our understanding regarding the importance of the perceived coach's leadership style and behavior on athletes' aggression and well-being level. This study found that aggression was not influenced by the coach's leadership style and behaviors, but was negatively associated with the athletes' well-being and positively associated with depression. On the other hand, well-being was positively associated with the coach's training and instruction behavior. Future studies should further investigate the prevalence of depression among Malaysian athletes, as our study sample showed a high prevalence of participants screening positive for depression symptoms.

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