

## Differences between leadership style and verbal aggressiveness profile of coaches and the satisfaction and goal orientation of young athletes

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### Abstract

Coaches' verbal aggressiveness is an influential behavioral trait that influences athletes' perception and feelings. Similarly, coaches' leadership behavior affects athletes' perceptions, feelings and performance. Examining behavioral patterns independent from each other is a descriptive approach. Extracting profiles as combinations of such patterns is expected to be more explanatory and insightful. The aim of the present study was: a) to explore the perceived leadership style and verbal aggressiveness profile of coaches and b) to examine differences in athletes' satisfaction and achievement goal orientation based on the perceived coaches' leadership style and verbal aggressiveness profile. The findings of a two-stage cluster analysis supported two profiles of coaches. The first profile depicts coaches exhibiting a low autocratic, high democratic and low verbal aggressive behavior. The second profile includes coaches presenting a high autocratic, low democratic and high verbal aggressive behavior. Teachers categorized within the first profile promoted their athletes' satisfaction. Similarly, athletes who are more task-oriented consider that their coaches belong to the first profile. Coaches could adopt a democratic leadership style and exhibit less verbally aggressive behaviour for promoting athletes satisfaction.

**Key Words:** leadership, verbal aggressiveness, satisfaction, goal-orientation, profiles

### Introduction

The role of a coach is multidimensional since he/she has to help his/her athletes to develop their physical, mental, technical and tactical skills, in order to cope with difficulties and finally to win the competition (Becker, 2009). The effective communication between players and coaches plays an important role in their relationship. Coaches who are keen on effective communication are likely to lead their athletes to follow their instructions (Haselwood, et al., 2005). Coaches' behaviors and instructional style related with their athletes development and success (Alfermann, Lee, & Würth, 2005). Similarly, coaches' communication may influence their athletes' performance, competence, enjoyment and motivation (Black & Weiss, 1992). The coach-athlete relationship plays a determinant role on athletes' success and satisfaction (Jowett & Cockerill, 2002). Coaching effectiveness is influenced by athletes' perception for their coach (Smoll & Smith, 1989). Additionally, coaches' behaviours influence their athletes' satisfaction, which plays a determinant role in their performance (Chelladurai & Saleh, 1980; Rieke, Hammermeister, & Chase, 2008). Interesting results have been produced in previous papers concerning verbal aggressiveness in schools (Bekiari, 2016; 2017a,b; Bekiari, Kokaridas & Sakellariou, 2005; 2006; Bekiari & Petanidis, 2016; Bekiari & Pylarinou, 2017).

#### Verbal aggressiveness

The communication between people could present aggressive traits. A person may exhibit a verbally aggressive behaviour. Verbal aggression can be perceived as attacking on a person's self-concept aiming at causing psychological pain such as humiliation, shame, depression or other negative feelings about him (Infante, 1987; Infante & Rancer, 1982; Infante & Wigley, 1986; Rancer & Avtgis, 2006). Verbal aggression is likely to be expressed in various forms such as attack on character, competence, physical appearance, teasing, ridicule, threats, swearing, profanity, curses, quips and gestures (Infante, Sabourin, Rudd, & Shannon, 1990; Infante, Riddle, Horvath, & Tumlin, 1992; Myers, Brann, & Martin, 2013). Verbally aggressive people do not consider their behavior as harmful to others. Simultaneously, they present certain sensitivity to pain caused by verbal aggressiveness by others. The findings of the majority of investigations have shown that the trait of verbal aggression leads to negative results regardless of the type of relationship of the respondents (Bekiari, 2012; Edwards & Myers 2007; Infante, Myers, & Buerkel, 1994; Infante & Rancer, 1996). In sport settings, however, verbal aggressiveness has drawn very little attention by the researchers. A limited number of studies have explored the influence of coaches' verbal aggressiveness on their athletes' perceptions and feelings. More specifically, athletes reported as an unpleasant behaviour their coaches' verbal aggressiveness and consequently they feel less satisfaction (Kassing & Infante, 1999). Athletes also perceived their verbally aggressive coaches as less credible and reported that they feel less motivated (Mazer, Barnes, Grevious, & Boger, 2013). Similarly, coaches' verbal aggressiveness negatively related with perceived mastery climate and positively with performance climate (Bekiari & Syrmpas, 2015). Similarly, the findings of a study revealed that coaches' verbal

aggression negatively related with athletes' intrinsic motivation and identified regulation. On the contrary, verbal aggressiveness found to be positively related with external regulation and amotivation (Bekiari, Perkos, & Gerodimos, 2015). Bekiari (2014) stressed that coaches' verbal aggressiveness positively related with anxiety, autocratic style, and negatively with athletes' enjoyment, ability, effort, and democratic style.

Finally, the relationship between athletes' aggressiveness and the type of sport (contact or non-contact) were examined. Bekiari, Digelidis, and Sakellariou (2006) found that athletes who participated in a non-contact sport perceived their coaches emit less verbal aggressiveness compared to athletes participating in a high-contact sport. In fact, the male volleyball players were more affected by their coaches' verbal aggressiveness than the female volleyball players were affected (Bekiari, Patsiaouras, Kokaridas, & Sakellariou, 2006).

#### Leadership style

The Multidimensional Model of Leadership includes five dimensions of leaders' behaviour in the sports setting: a) democratic, b) autocratic, c) training d) guidance, e) social support and f) positive feedback. However, in the present study the democratic and autocratic dimensions of this scale will be examined. The democratic coach allows athletes actively participate in decision-making, while the authoritarian impose his opinion to his/her athletes (Chelladurai & Saleh, 1980). A significant number of studies examined athletes' preferences of and coaches' perception of the leadership style in different contexts.

The findings of a study revealed that high school wrestlers prefer their coaches to exhibit an authoritarian behaviour at the end than at the beginning of the season. Their preference it appears to be aligned with their coaches' behaviour. That is to say, they reported that their coaches tend to exhibit progressively during the year more autocratic behaviour (Turman, 2003). The findings of a similar study revealed that high-school wrestlers' affective learning negatively related with their coaches autocratic behaviour. On the contrary, coaches' democratic behaviour positively related with wrestlers' affective learning (Turman, 2006). Wrestlers also reported that they experience greater satisfaction when their coaches exhibit a democratic than an autocratic behaviour (Dwyer & Fischer, 1990). Additionally, both wrestlers with successful and unsuccessful results reported that their coaches tend to increase progressively the use of autocratic behaviour during the season. However, wrestlers with unsuccessful results perceived that their coaches exhibit greater amount of autocratic behaviour (Turman, 2001). Amorose and Horn (2000), found that college athletes were more intrinsically motivated when their coaches exhibited a democratic than an autocratic behaviour. Similarly, the findings of a study (Hollebeak & Amorose, 2005) revealed a positive indirect effect of democratic behavior on intrinsic motivation in college team and individual athletes. The findings of a study supported that athletes who were more task-oriented and less ego-oriented perceived that their coaches exhibit higher democratic behaviour and lower autocratic behaviour. Additionally, athletes reported greater satisfaction when they perceived that their coaches exhibit higher democratic behaviours and lower autocratic behaviours (Mavi, 2003). Coaches' democratic behaviour appears to positively relate with athletes satisfaction (Shapie, Zenal, Parnabas, & Abdullah, 2016). Finally, the autocratic style is positively correlated with stress, and the use of verbal aggressive communication from the coach (Bekiari, 2014).

#### Goal orientations

The concepts of goal orientation and motivation are referred generally to the way with which each person conceives his ability, defines success and prompts himself to achieve his objectives. Related researches in this field were based on the perception that the individual's achievement targets are determined by whatever the individual considers important and desirable (Dweck & Leggett, 1988; Nicholls, 1989, 1992). The better comprehension of motivation however, requires that the target (objective) of behavior should be recognized. According to the theory of Nicholls (1989), inter-personal differences exist in the way with which the people perceive their ability and define success. Thus, in environments of achievement such as the school and sports, two different objectives independent with each other are revealed, the objective of learning and the objective of ego reinforcement (Duda & Nicholls, 1992; Li & Harmer, 1998; Nicholls, 1989; Williams & Gill, 1995). Individuals, who are directed toward the target of learning, conceive success and judge their ability based on their own efforts and personal improvement. On the contrary, individuals who are oriented toward the objective of ego reinforcement, compare themselves with others or with certain norms in order to decide how effective they are. For them, success means the surpassing of others and the demonstration of a high level of abilities.

The objectives of individuals seem to determine the type of motivation they experience, which in turn is related with certain behaviors. Frederick and Ryan (1995) support that the participation in activities for a long period is more likely to happen when individuals are internally rather than externally motivated. Moreover, it has been found that internal motivation predicts the intention of students to maintain their attendance in physical education activities (Goudas, Biddle, & Underwood, 1995b). On the other hand, detachment from sports appears to be connected with decreased internal motivation (Pelletier, Fortier, Vallerand, Tuson, Briere, & Blais, 1995).

Treasure and Roberts (1995) noted that when children realize that the course of physical education is directed toward learning, they adopt targets that concern their personal improvement and they demonstrate higher motivation. Consequently, the children participate more actively and have more fun, because they do not worry about their errors or they probably know that when somebody wants to learn it is natural to make mistakes. After all, they all accept that everyone can accomplish his/her goals through practice. On the contrary, in the case of children realizing that the physical education course is directed toward performance, their feeling

of success depends on their perception of how good they are compared to others. Consequently, the errors become sources of stress and the children tend to avoid their participation in physical education classes, especially when they believe that they do not demonstrate the skills to accomplish a task. Fox, Goudas, Biddle, Duda, and Armstrong (1994) supported that children with high task orientation demonstrate higher and more constant in time motivation, whereas children directed toward 'ego' demonstrate a low or moderate perception for their athletic abilities. Athletes with high ego orientation are more willing to perceive as acceptable their coaches' verbal aggressive behaviour (Dunn & Dunn, 1999). The findings of another study revealed that youth basketball players who are equally high ego and task oriented reported that are satisfied with their participation in basketball activities (Horn, Duda, & Miller, 1993). Task oriented young tennis players reported as more satisfied with their competitive results during the last season and degree of individualized instruction provided by their coach. Similarly, these tennis players perceived that their coach is the most suitable for them and he/she plays a determinant role on their development as tennis players (Smith, Balaguer, & Duda, 2006). Cluster-based concept has also been used in case of diachronic data, regarding autonomous and controlled motivation, revealing complex relationship between motivation and performance (Gillet, Vallerand, Rosnet, 2009). The perceived high ability in group sport was featured by an engagement of task-based motivation to enjoyment. In this sense, the relevance of effort, personal development and improvement was pointed out. Task orientation and enjoyment in physical education are emphasized as salient factors inhibiting decline in physical activity (Yli-Piipari, Barkoukis, Jaakkola & Liukkonen, 2013). Task-based motivation constitutes a predictor of enjoyment in physical education through (perceived) physical competence and intrinsic motivation. This supported previous findings (Vallerand et al, 1997), involving self-determination and the achievement goal theory and excluding ego-involving climate as rather irrelevant factor (Gråstén, Jaakkola, Liukkonen, Watt, & Yli-Piipari, 2012). Despite the apparently homogenous statistical data, noticeably different qualitative reasons have been revealed regarding to task- and ego-orientations (Carr, 2012). There is a slight relationship between coaches' verbal aggressiveness and athletes' goal orientation. However, the finding of a previous study in the PE context revealed that PE teachers' verbal aggressiveness is positively related with students' ego orientation (Bekiari & Tsiana, 2016).

#### Satisfaction

Satisfaction is a mental state of the person that includes feelings of joy, compassion and entertainment (Scanlan & Simmons, 1992). Students feel satisfaction in physical education when prevailing the climate of motivation oriented learning (Grasten, Jaakkola, Liukkonen, Watt, Yli-Piipari, 2012). Other factors that enhance the feeling of satisfaction is supposed to be the physical ability (Brazendale, Graves, Penhollow, Whitehurst, Pittinger & Randel, 2015), the self-efficacy of students, the level of physical activity, positive, supportive atmosphere of the course and the expected benefits of the exercise (Barr-Anderson, Neumark-Sztainer, Schmitz, Ward, Conway, Pratt et al., 2008; Bekiari & Sympas, 2015). In addition, the perceived physical ability, the success in the course activities and the autonomy of students in physical education appears to cause positive emotions to the students, but also to reduce the monotony they may feel during the course (Baron & Downey, 2007). Students' satisfaction in physical education seems to be related with the motivation of students to exercise and to work on the physical education (Hashim, Grove & Whipp, 2008) and with the fitness of adolescents (Woods, Tannehill & Walsh, 2012).

**Purpose** The purpose of the present study was to identify coaches' perceived leadership style and verbal aggressiveness profile. An additional goal was to examine differences between athletes' satisfaction and goal orientation and coaches' perceived verbal aggressiveness and leadership style profile. The expected academic benefit consists on the understanding of new profiles as combinations of behavioral features, which make a distinct synergy effect. Accordance and differentiation will be critically examined. The expected practical benefit is related with the recognition of impacts of behavioral patterns on the training practice and effectiveness.

## Material and Methods

### Participants

Three hundred twenty-two (322) athletes participated in the present study (193 males and 129 females). Athletes were recruited of a list of sports clubs located in the Central Greece. Respondents' age varied from 14 to 17 years ( $M=14.74$ ,  $SD=1.28$ ). The recruitment process included the following steps: (a) firstly, information sheets were distributed to their coaches; (b) then athletes and their parents/guards were informed about the data collection process and that their anonymity would be maintained. It was emphasized to them that the participation in the study is mandatory and they can stop their participation any time. Thus, their participation in the study was voluntary; (c) participants filled in a consent form; (d) finally, specific instructions were provided to athletes before they filled in the questionnaires. Similar to previous studies (McCroskey, *et al.*, 1995; McCroskey, Sallinen, *et al.*, 1996; Plax, *et al.*, 1986; Thomas, Richmond, & McCroskey, 1994) the data collection process took place at the end of training session in order to be ensured that athletes could easily recall facts. During the data collection process researchers were available to provide athletes with further explanations.

**Measures** Verbal Aggressiveness Scale. The Greek version of Verbal Aggressiveness Scale (Bekiari & Digelidis, 2015) was used in order examine athletes' perceptions about to what extend their coaches exhibit a verbal aggressive behaviour. The development of this scale was based on the theory of Infante and Wigley

(1986). The Greek scale included eight items (e.g., “insults athletes” “makes negative judgments on athletes’ ability” etc.). Participants were asked to respond on a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree).

*Leadership style Scale.* A shorter version of the “Leadership Scale for Sports” (L.S.S.), (Chelladurai & Saleh, 1980) was used in order to measure perceived coaches’ leadership style. This short version consisted of five subscales. However, in the present study only two of the five subscales were used. The first subscale consists of six items which assess the perceived autocratic decision making style. The second subscale consists of five items that assess the perceived coaches’ democratic decision making style. Athletes were called to respond on a 5-point Likert-type scale (1 = strongly disagree, 5 = strongly agree).

*Lesson Satisfaction Scale.* The Lesson Satisfaction Scale was developed by Duda and Nicholls (1992) and was successfully adapted to the Greek language by Papaioannou, Milosis, Kosmidou, and Tsigilis (2002). The scale consisted of five items (e.g., "Today I found training interesting") and the athletes respond to a Likert five-point scale varied from “totally disagree” to “totally agree”.

*Goal Orientations Scale.* The adapted to Greek physical education context (Papaioannou & Macdonald, 1993; Papaioannou & Theodorakis, 1996) version of Task and Ego Orientation in Sport Questionnaire (Duda, 1989) was used. The Questionnaire includes a statement ‘I feel most successful in physical education when...’ based on which respondents prompted to response to 13 items on a five-point scale (I absolutely agree = 5, I absolutely disagree = 1). Seven of the items describe participants’ task orientation (e.g., I learn new skills) and six their ego orientation (e.g., I feel most successful in physical education when... I come first).

Data analysis

Prior to data analysis, data’s accuracy, missing values, fit between their distribution, univariate and multivariate outliers were examined. More specifically, normality was checked (Std. skewness/kurtosis > 2.58). Additionally, univariate outliers were examined by using z scores > ± 3.29. Finally, multivariate outliers were detected by using the Mahalanobis distance method with  $p < .001$  (Tabachnick & Fidell, 2007: 71-116).

Coaches’ leadership style and verbal aggressiveness profile clustering A two-stage clustering method was conducted in order to identify athletes’ subgroups based on perceived coaches’ verbal aggressiveness leadership style. The two-stage clustering method includes hierarchical methods and nonhierarchical methods of k-means cluster analysis aimed at identifying homogeneous groups. According to Hair and his colleagues (2010), each clustering method has advantages and disadvantages. However, the combination of both methods can help researchers to adopt cluster solution with high internal and external homogeneities (Hair & Black, 2000). Independent sample t-tests were conducted to examine whether there were verbal aggressiveness and leadership styles profile differences on athletes’ satisfaction and achievement goal orientation.

**Results**

No cases with extremely high z scores were identified as univariate outliers. Two cases through Mahalanobis distance were found to be a multivariate outlier and were deleted, leaving 324 cases for the final analyses. Then, four new variables were calculated based on the mean score of the items assessing satisfaction, verbal aggressiveness, task and ego goal orientation.

Cluster analysis

Data’s collinearity was examined. The findings of the Pearson’s r suggested that there was a significant negative correlation between task and ego orientation ( $r = -0.77$ ). Verbal aggressiveness also found to be positively related with ego orientation ( $r = 0.88$ ) and significantly negative related with the task orientation ( $r = -0.83$ ). The above findings implied collinearity. However, it should be taken in consideration that correlation values of 0.90 and above perceived that highlight substantial collinearity (Hair et al., 2010). A two-stage cluster analysis was conducted aimed at identifying subgroups of coaches based on the verbal aggressiveness and leadership styles they exhibit. Cluster analysis allow researchers to select the solution that best fits the data. First, a hierarchical cluster analysis using Ward’s linkage method with the squared Euclidian distance measure was performed. Ward’s hierarchical method was chosen because it minimizes the within cluster differences and thus create clusters with similar sizes (Hair, et al. 2010). In the second stage, a k-means cluster analysis, using the cluster centers resulting from the hierarchical seed points, was conducted to validate the two-cluster solution. The results of the hierarchical method were confirmed because the final centroids in the k-means analysis were similar to the initial seed points. Finally, a stability test on the two cluster solution was performed by using two-thirds random sample. The re-cluster analysis indicated a stable cluster pattern, with approximately 99.5% of participants maintaining their original cluster membership

Table 1. Means for the study variables as a function of clusters

Cluster	N	Autocratic style		Democratic style		Verbal aggressiveness	
		M	SD	M	SD	M	SD
1 Low autocratic style- high democratic-low verbal aggressiveness	127	1.74	.30	4.07	.26	1.99	.31
2 High autocratic style- low democratic- high verbal aggressiveness	195	4.02	.35	1.91	.30	4.05	.26

### **Differences between perceived coaches' profile groups and their athletes' satisfaction**

The independent samples t-test results found to be statistically significant  $t_{(320)} = 48.89$ ,  $p < .001$ ;  $d = 5.62$ ). The effect size for this analysis ( $d = 5.62$ ) was found to exceed Cohen's (1988) convention for a large effect ( $d = .50$ ). The results suggested that coaches categorized within cluster 1 (low autocratic style, high democratic, low verbal aggressiveness) ( $M = 3.9$ ,  $SD = 0.42$ ) lead their athletes to experience higher satisfaction during training session than did coaches was categorized within cluster 2 (high autocratic style - low democratic - high verbal aggressiveness) ( $M = 2.0$ ,  $SD = 0.28$ ).

### **Differences between perceived coaches' profile groups and their athletes' achievement goal orientation.**

An independent samples t-test was conducted to compare athletes' achievement goal orientation scores for both coaches' leadership styles and verbal aggressiveness profiles. This test was found to be statistically significant  $t_{(320)} = 19.80$ ,  $p < .001$ ;  $d = 2.10$ ). The effect size for this analysis ( $d = 2.10$ ) was found to exceed Cohen's (1988) convention for a large effect ( $d = .80$ ). The results suggested that athletes which categorized their coaches within cluster 1 (low autocratic style, high democratic, low verbal aggressiveness), ( $M = 3.0$ ;  $SD = 0.74$ ) perceived themselves as more task oriented during the training session than athletes which categorized their coaches within cluster 2 (low autocratic style, high democratic, low verbal aggressiveness) ( $M = 1.7$ ,  $SD = 0.36$ ). Similarly, the independent samples t-test results found to be statistically significant  $t_{(320)} = -10.55$ ,  $p < .001$ ;  $d = 1.15$ ). Athletes which categorized their coaches within cluster 2 (high autocratic style - low democratic - high verbal aggressiveness), ( $M = 3.7$ ;  $SD = 0.61$ ) reported that they were more ego oriented during the training session than athletes which categorized their coaches within cluster 1 (low autocratic style, high democratic, low verbal aggressiveness), ( $M = 2.8$ ,  $SD = 0.89$ ).

### **Discussion**

The first goal of the present study was to explore the perceived coaches' leadership style and verbal aggressiveness profile. The findings of the present study suggested two profiles of coaches. Coaches were categorized within the first proposed cluster exhibit a low autocratic, high democratic and low verbal aggressive behavior. On the contrary, coaches who were categorized within the second proposed cluster exhibit a high autocratic, low democratic and high verbal aggressive behavior. The identified profiles are aligned with the existing literature suggested verbal aggressiveness is positively related with autocratic and negatively with democratic coaching style (Bekiari, 2014). As apparently there is no previous relevant study, these profiles could be a theoretical framework for further research.

The second goal of this study was to examine differences in athletes' satisfaction and achievement goal orientation based on the perceived coaches' leadership style and verbal aggressiveness profile. The findings of the present study indicated that athletes were more satisfied when they perceived their coaches exhibit more democratic and less autocratic and less verbally aggressive behaviours. The field is currently limited of studies examining differences on athletes' satisfaction and achievement goal orientation regarding their coaches' leadership style and verbal aggressiveness profile. However, the findings of a previous study that examined athletes' perceptions of their coaches' behaviours and their impact on their feelings are in accordance with the findings of the present study. More specifically, the findings of this previous study suggested that coaches' verbal aggressiveness lead their athletes to experience less satisfaction (Kassing & Infante, 1999). Additionally, athletes feel more satisfied when they perceived that their coaches exhibit higher democratic and lower autocratic behaviours (Mavi, 2003). Similarly, coaches' democratic style may lead their athletes (Chelladurai, 2007; Dwyer & Fischer, 1990; Reimer & Toon, 2001; Shapie, Zenal, Parnabas, & Abdullah, 2016) and wrestlers (Turman, 2003) to feel more satisfied during practice.

Moreover, the findings of the present study suggested that task oriented athletes perceived their coaches exhibit less verbally aggressive, autocratic, and more democratic behaviour. While, ego oriented athletes perceived their coaches exhibit less verbally aggressive, autocratic, and more democratic behaviour. In the sport field, the findings of a study (Hollebeak & Amorose 2005) suggested that athletes, who perceived that their coach adopts an autocratic style, reported that they are less intrinsically motivated. Conversely, athletes who perceived that their coach adopts a democratic style reported that they were more intrinsically motivated. Additionally, intrinsic motivation influences task orientation (Ferrer-Caja, & Weiss, 2000). Therefore, the claim that they can reasonably be put forward is that the aforementioned findings indirectly confirmed the findings of the present. Additionally, this specific finding of the present study is partially in accordance with the findings of previous studies conducted in the physical education context. More specifically, Bekiari and Balla (2017) suggested that PE teachers' autocratic leadership style is positively related with students' ego orientation and negatively with task orientation. Autocratic leadership style is positively related with students' task orientation and negatively with ego orientation. Moreover, verbal aggressiveness is positively related with ego orientation and negatively with task orientation (Bekiari & Tsana, 2016). Thus, it can be stated that coaches, who avoid exhibiting verbally aggressive behaviour and rather tend to adopt a democratic leadership style, may urge their athletes to adopt in some cases or reinforce in other cases task-oriented behaviors. Conversely, verbally aggressive coaches adopting at the same time an autocratic leadership style may reinforce their athletes' ego oriented behaviors. A challenge for future research would be to differentiate more specifically possible sub-

dimensions of these types, or to reveal new complementary or conflicting profiles. Possible determinants of such profiles and dimensions can also be detected.

## References

- Alfermann, D., Lee, M. J., & Würth, S. (2005). Perceived leadership behavior and motivational climate as antecedents of adolescent athletes' skill development. *Athletic Insight: The Online Journal of Sport Psychology*, 7(2), 14-36.
- Amorose, A. J., & Horn, T. S. (2000). Intrinsic motivation: Relationships with collegiate athletes' gender, scholarship status, and perceptions of their coaches' behavior. *Journal of sport and exercise psychology*, 22(1), 63-84.
- Baron, L. J., & Downey, P. J. (2007). Perceived success and enjoyment in elementary physical education. *Journal of Applied Research on Learning*, 1(2), 1-24.
- Barr-Anderson, D. J., Neumark-Sztainer, D., Lytle, L., Schmitz, K. H., Ward, D. S., Conway, T. L. ... & Pate, R. R. (2008). But I like PE: Factors associated with enjoyment of physical education class in middle school girls. *Research quarterly for exercise and sport*, 79(1), 18-27.
- Becker, A. J. (2009). It's not what they do, it's how they do it: Athlete experiences of great coaching. *International Journal of Sports Science & Coaching*, 4(1), 93-119.
- Bekiari, A. (2012). Perceptions of instructors' verbal aggressiveness and physical education students' affective learning. *Perceptual and Motor Skills*, 115, 325-335.
- Bekiari, A. (2014). Verbal Aggressiveness and Leadership Style of Sports Instructors and their Relationship with Athletes' Intrinsic Motivation. *Creative Education*, 5(2), 114-121.
- Bekiari, A. (2016). Insights into instructors' verbal aggressiveness and students' Machiavellianism through leadership style and motivational climate. *European Scientific Journal*, 12(25), 90-110.
- Bekiari, A. (2017a). Exploring relations between instructors' verbal aggressiveness and argumentativeness and students' fair play behaviours and Machiavellianism. *International Journal of Physical Education*, 54(2), 26-39.
- Bekiari, A. (2017b). Verbally aggressive instructors and Machiavellian students: Is the socio-communicative style an over-bridging? *Psychology*, 8(10), 1437-1454.
- Bekiari, A., & Balla, K. (2017). Instructors and Students Relations: Argumentativeness, Leadership and Goal Orientations. *Open Journal of Social Sciences*, 5(07), 128.
- Bekiari, A., & Digelidis, N. (2015). Measuring verbal aggressiveness in sport and education. *International Journal of Physical Education*, 4, 12-21.
- Bekiari, A., Digelidis, N., & Sakellariou, K. (2006). Perceived verbal aggressiveness of coaches in volleyball and basketball: A preliminary study. *Psychological Reports*, 103, 526-530.
- Bekiari, A., Kokaridas, D., & Sakellariou, K. (2005). Verbal aggressiveness of physical education teachers and students' self-reports of behaviour. *Psychological Reports*, 96, 493-498.
- Bekiari, A., Kokaridas, D., & Sakellariou, K. (2006). Associations of students' self-reports of their teacher's verbal aggression, intrinsic motivation, and perceptions of reasons for discipline in Greek physical education classes. *Psychological Reports*, 98, 451-461.
- Bekiari, A., Patsiaouras, A., Kokaridas, D., & Sakellariou, K. (2006). Verbal aggressiveness and state anxiety of volleyball players and coaches. *Psychological Reports*, 99, 630-634.
- Bekiari, A. & Petanidis, D. (2016). Exploring teachers' verbal aggressiveness through interpersonal attraction and students' intrinsic motivation. *Open Journal of Social Sciences*, 4, 72-85.
- Bekiari, A., Perkos, S., & Gerodimos, V. (2015). Verbal aggression in basketball: perceived coach use and athlete intrinsic and extrinsic motivation. *Journal of Physical Education and Sport*, 15(1), 96-102.
- Bekiari, A. & Pylarinou, M. (2016). Instructor argumentativeness and socio-communicative style and student discipline: using physical education students' class as an illustration. *Open Journal of Social Sciences* 5, 122-136.
- Bekiari, A., Syrmpas, I. (2015). Coaches' Verbal Aggressiveness and Motivational Climate as Predictors of Athletes' Satisfaction. *British Journal of Education, Society & Behavioural Science*, 9(4), 318-329.
- Bekiari, A., & Tsiana, I. (2016). Exploring Instructors' Verbal Aggressiveness and Students' Personal Orientations and Reasons of Discipline in Physical Education Class. *Advances in Physical Education*, 6(03), 158.
- Black, S. J., & Weiss, M. R. (1992). The relationship among perceived coaching behaviors, perceptions of ability, and motivation in competitive age-group swimmers. *Journal of sport and exercise psychology*, 14(3), 309-325.
- Brazendale, K., Graves, B. S., Penhollow, T., Whitehurst, M., Pittinger, E., & Randel, A. B. (2015). Children's Enjoyment and Perceived Competence in Physical Education and Physical Activity Participation Outside of School. *Emotional & Behavioral Disorders in Youth*, 65-69.
- Carr, S. (2012). High Task/High Ego Oriented Students' Reasons for Endorsing Task and Ego Goals in the Context of Physical Education. *Applied Psychology*, 61(4), 540-563.
- Chelladurai, P. (2007). Leadership in sports. *Handbook of Sport Psychology, Third Edition*, 111-135.

- Chelladurai, P., & Saleh, S. D. (1980). Dimensions of leader behavior in sports: Development of a leadership scale. *Journal of sport psychology*, 2(1), 34-45.
- Duda, J. L., & Nicholls, J. G. (1992). Dimensions of achievement motivation in schoolwork and sport. *Journal of educational psychology*, 84(3), 290.
- Dunn, J. G., & Dunn, J. C. (1999). Goal orientations, perceptions of aggression, and sportspersonship in elite male youth ice hockey players. *The Sport Psychologist*, 13(2), 183-200.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological review*, 95(2), 256.
- Dwyer, J. J., & Fischer, D. G. (1990). Wrestlers' perceptions of coaches' leadership as predictors of satisfaction with leadership. *Perceptual and Motor Skills*, 71(2), 511-517.
- Edwards, C., & Myers, S. A. (2007). Perceived instructor credibility as a function of instructor aggressive communication. *Communication Research Reports*, 24(1), 47-53.
- Ferrer-Caja, E., & Weiss, M. R. (2000). Predictors of intrinsic motivation among adolescent students in physical education. *Research quarterly for exercise and sport*, 71(3), 267-279.
- Fox, K., Goudas, M., Biddle, S., Duda, J., & Armstrong, N. (1994). Children's task and ego goal profiles in sport. *British journal of educational psychology*, 64(2), 253-261.
- Frederick, C. M., & Ryan, R. M. (1995). Self-determination in sport: A review using cognitive evaluation theory. *International journal of sport psychology*.
- Gillet, N., Vallerand, R. J., & Rosnet, E. (2009). Motivational clusters and performance in a real-life setting. *Motivation and Emotion*, 33(1), 49-62.
- Goudas, M., Biddle, S., & Underwood, M. (1995). A prospective study of the relationships between motivational orientations and perceived competence with intrinsic motivation and achievement in a teacher education course. *Educational psychology*, 15(1), 89-96.
- Gråstén, A., Jaakkola, T., Liukkonen, J., Watt, A., & Yli-Piipari, S. (2012). Prediction of enjoyment in school physical education. *Journal of sports science & medicine*, 11(2), 260.
- Hair Jr, J. F., & Black, W. C. (2000). Cluster analysis.
- Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis*. Prentice Hall.
- Hashim, H., Grove, R. J., & Whipp, P. (2008). Validating the youth sport enjoyment construct in high school physical education. *Research Quarterly for Exercise and Sport*, 79(2), 183-194.
- Jowett, S., & Cockerill, I. M. (2002). Incompatibility in the coach-athlete relationship. *Solutions in sport psychology*, 16-31.
- Haselwood, D. M., Joyner, A. B., Burke, K. L., & Geyerman, C. B. (2005). Female athletes' perceptions of head coaches' communication competence. *Journal of Sport Behavior*, 28(3), 216.
- Hollebeak, J., & Amorose, A. J. (2005). Perceived coaching behaviors and college athletes' intrinsic motivation: A test of self-determination theory. *Journal of applied sport psychology*, 17(1), 20-36.
- Hom Jr, H. L., Duda, J. L., & Miller, A. (1993). Correlates of goal orientations among young athletes. *Pediatric Exercise Science*, 5(2), 168-176.
- Haselwood, D.M., Joyner, B.A., Burke, K.L., Geyerman, C.B., Czech, D.R.,
- Infante, D. A. (1987). Aggressiveness. *Personality and interpersonal communication*, 157-192.
- Infante, D. A., Myers, S. A., & Buerkel, R. A. (1994). Argument and verbal aggression in constructive and destructive family and organizational disagreements. *Western Journal of Communication (Includes Communication Reports)*, 58(2), 73-84.
- Infante, D. A., & Rancer, A. S. (1982). A conceptualization and measure of argumentativeness. *Journal of Personality Assessment*, 46(1), 72-80.
- Infante, D. A., & Rancer, A. S. (1996). Argumentativeness and verbal aggressiveness: A review of recent theory and research. *Annals of the International Communication Association*, 19(1), 319-352.
- Infante, D. A., Riddle, B. L., Horvath, C. L., & Tumlin, S. A. (1992). Verbal aggressiveness: Messages and reasons. *Communication Quarterly*, 40(2), 116-126.
- Infante, D. A., Sabourin, T. C., Rudd, J. E., & Shannon, E. A. (1990). Verbal aggression in violent and nonviolent marital disputes. *Communication Quarterly*, 38(4), 361-371.
- Infante, D. A., & Wigley III, C. J. (1986). Verbal aggressiveness: An interpersonal model and measure. *Communications Monographs*, 53(1), 61-69.
- Kassing, J. W. & Infante, D. A. (1999). Aggressive communication in the coach-athlete relationship. *Communication Research Reports*, 16(2), 110-120.
- Li, F., Harmer, P., Duncan, T. E., Duncan, S. C., Acock, A., & Boles, S. (1998). Approaches to testing interaction effects using structural equation modeling methodology. *Multivariate Behavioral Research*, 33(1), 1-39.
- Mavi, H. F. (2003). The relationship among dispositional, contextual variables, and intrinsic motivation in high school team sports.
- Mazer, J. P., Barnes, K., Grevious, A., & Boger, C. (2013). Coach verbal aggression: A case study examining effects on athlete motivation and perceptions of coach credibility. *International Journal of Sport Communication*, 6(2), 203-213.

- McCroskey, J. C., Richmond, V. P., Sallinen, A., Fayer, J. M., & Barraclough, R. A. (1995). A cross-cultural and multi-behavioral analysis of the relationship between nonverbal immediacy and teacher evaluation. *Communication Education*, 44(4), 281-291.
- McCroskey, J. C., Sallinen, A., Fayer, J. M., Richmond, V. P., & Barraclough, R. A. (1996). Nonverbal immediacy and cognitive learning: A cross-cultural investigation. *Communication Education*, 45(3), 200-211.
- Myers, S. A., Brann, M., & Martin, M. M. (2013). Identifying the content and topics of instructor use of verbally aggressive messages. *Communication Research Reports*, 30(3), 252-258.
- Nicholls, J. G. (1989). *The competitive ethos and democratic education*. Harvard University Press.
- Nicholls, J. G. (1992). The general and the specific in the development and expression of achievement motivation. *Motivation in sport and exercise*, 31-56.
- Papaioannou, A., & Macdonald, A. I. (1993). Goal perspectives and purposes of physical education as perceived by Greek adolescents. *Physical Education Review*, 16(1), 41-48.
- Papaioannou, A., Milosis, D., Kosmidou, E., & Tsigilis, N. (2002). Multidimensional structure of goal orientations: The importance of adopting a personal development goal in physical education. *Psychology: The Journal of the Hellenic Psychological Society*, 9, 494-513.
- Papaioannou, A., & Theodorakis, Y. (1996). A test of three models for the prediction of intention for participation in physical education lessons. *International Journal of Sport Psychology*.
- Pelletier, L. G., Tuson, K. M., Fortier, M. S., Vallerand, R. J., Briere, N. M., & Blais, M. R. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: The Sport Motivation Scale (SMS). *Journal of Sport and Exercise Psychology*, 17(1), 35-53.
- Plax, T. G., Kearney, P., McCroskey, J. C., & Richmond, V. P. (1986). Power in the classroom VI: Verbal control strategies, nonverbal immediacy and affective learning. *Communication Education*, 35(1), 43-55.
- Rancer, A. S., & Avtgis, T. A. (2006). *Argumentative and aggressive communication: Theory, research, and application*. Sage.
- Riemer, H. A., & Toon, K. (2001). Leadership and satisfaction in tennis: Examination of congruence, gender, and ability. *Research Quarterly for Exercise and Sport*, 72(3), 243-256.
- Rieke, M., Hammermeister, J., & Chase, M. (2008). Servant leadership in sport: A new paradigm for effective coach behavior. *International Journal of Sports Science & Coaching*, 3(2), 227-239.
- Scanlan, T. K., & Simons, J. P. (1992). The construct of sport enjoyment. *Motivation in sport and exercise*, 199-215.
- Shapie, M. N. M., Zenal, Z., Parnabas, V., & Abdullah, N. M. (2016). The Correlation between Leadership Coaching Style and Satisfaction among University Silat Olahraga Athletes. *Ido Movement for Culture. Journal of Martial Arts Anthropology*, 3(16), 34-39.
- Smith, A. L., Balaguer, I., & Duda, J. L. (2006). Goal orientation profile differences on perceived motivational climate, perceived peer relationships, and motivation-related responses of youth athletes. *Journal of Sports Sciences*, 24(12), 1315-1327.
- Smoll, F. L., & Smith, R. E. (1989). Leadership behaviors in sport: A theoretical model and research paradigm. *Journal of Applied Social Psychology*, 19(18), 1522-1551.
- Tabachnick, B. G., & Fidell, L. S. (2007). Multilevel linear modeling. *Using multivariate statistics*, 781-857.
- Thomas, C. E., Richmond, V. P., & McCroskey, J. C. (1994). The association between immediacy and socio-communicative style. *Communication Research Reports*, 11(1), 107-114.
- Treasure, D. C., & Roberts, G. C. (1995). Applications of achievement goal theory to physical education: Implications for enhancing motivation. *Quest*, 47(4), 475-489.
- Turman, P. D. (2001). Situational coaching styles: The impact of success and athlete maturity level on coaches' leadership styles over time. *Small group research*, 32(5), 576-594.
- Turman, P. D. (2003). Athletic coaching from an instructional communication perspective: The influence of coach experience on high school wrestlers' preferences and perceptions of coaching behaviors across a season. *Communication Education*, 52(2), 73-86.
- Turman, P. D. (2006). Athletes' perception of coach power use and the association between playing status and sport satisfaction. *Communication research reports*, 23(4), 273-282.
- Vallerand, R. J., Brière, N. M., Blanchard, C., & Provencher, P. (1997). Development and validation of the multidimensional sportpersonship orientations scale. *Journal of Sport and Exercise Psychology*, 19(2), 197-206.
- Williams, L., & Gill, D. L. (1995). The role of perceived competence in the motivation of physical activity. *Journal of Sport and Exercise Psychology*, 17(4), 363-378.
- Woods, C. B., Tannehill, D., & Walsh, J. (2012). An examination of the relationship between enjoyment, physical education, physical activity and health in Irish adolescents. *Irish Educational Studies*, 31(3), 263-280.
- Yli-Piipari, S., Barkoukis, V., Jaakkola, T., & Liukkonen, J. (2013). The effect of physical education goal orientations and enjoyment in adolescent physical activity: A parallel process latent growth analysis. *Sport, Exercise, and Performance Psychology*, 2(1), 15.