



Coaches' Verbal Aggressiveness and Motivational Climate as Predictors of Athletes' Satisfaction

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Authors' contributions

This work was carried out in collaboration between both authors. Author AB designed the study, wrote the protocol and supervised the work. Authors AB and IS performed the statistical analysis. Author IS managed the analyses of the study. Both authors AB and IS wrote the first draft of the manuscript. Both authors AB and IS managed the literature searches and edited the manuscript. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: The purpose of this study was to explore: (a) The relationship between coaches' verbal aggression and motivational climate; (b) The influence of perceived motivational climate and coaches' verbal aggression on athletes' satisfaction with training; and (c) Gender and sports' type (contact and non-contact) differences in motivational climate and verbal aggressiveness.

Methodology: Athletes ($N=322$) from Central Greece voluntarily participate in this cross-sectional study by filling in 3 self-reported questionnaires. Their age varied from 13 to 17 years ($M=14.74$, $SD=1.28$).

Results: The findings of the multiple regression analysis revealed that mastery climate is a positive predictor of athletes' satisfaction during practice, whereas performance climate and coaches' verbal aggression have proved to be negative predictors of athletes' satisfaction. Additionally, MANOVA's findings indicated that female athletes presented higher levels of perceived verbal aggressiveness and performance climate than the male athletes. In contrast, male athletes presented higher levels of perceived mastery climate than female. Furthermore, athletes of non-contact sports perceived as

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more verbally aggressive their coaches and more performance oriented the training climate compare to athletes of contact sports. Finally, athletes of contact sports perceived training session as more mastery oriented compare to athletes of non-contact sports.

Conclusion: In the light of the aforementioned findings it can be concluded that once again coaches' verbal aggressiveness is harmful for athletes' feelings. Additionally, the findings suggested that coaches should promote mastery climate during practice rather than performance aiming in their athletes' satisfaction.

Keywords: Athletes' satisfaction; coaches' verbal aggressiveness; mastery and performance climate.

1. INTRODUCTION

Systematic engagement in sports, especially at high level, demands continuous effort, dedication, and commitment in order to confront training difficulties. Communication plays an important role in the athlete-coach relationship. Coaches who are keen on effective communication are likely to induce their athletes to follow their instructions [1]. The communication between people could present aggressive traits. A behavior could be characterized as aggressive when a person imposes symbolic or physical force aiming at least to be enforced and likely harm his/her interlocutor, and maximally to defeat and likely destroy him/her [2]. Aggressive behavior could be characterized as constructive or destructive respectively. It can be defined as constructive when it contributes to interpersonal relationship improvement and as destructive when it harms the relationship with or the feelings of his/her interlocutor [3]. Verbal aggressiveness is defined as attack on an individual's self-concept rather than attack to person's position on a topic of communication aiming at inflict psychological pain to this person [4]. Verbal aggression is likely to be expressed in various forms such as attack on character, competence, physical appearance, teasing, ridicule, threats, swearing, and profanity. Each person potentially could be disposed to make use of verbal aggressive messages under certain conditions. Verbally aggressive persons perceive that their behavior is perfectly justified and even necessary [5]. Strongly verbally aggressive persons are likely to resort to verbally aggressive messages because they are unable to avoid the use of this kind of messages. Furthermore, they incline to make use of them regardless of the location and interlocutor [6]. A study conducted by Infante [5] suggested that six are the most important determinants of verbal aggressiveness: reprimand, exploitation, teasing, self-defense, anger and low ability for arguments. Verbal aggressiveness has been examined in the physical education context [7-10] and in the sport field [11-13].

However, in sport settings, verbal aggressiveness has drawn little attention from the researchers. The vast majority of the studies consistently revealed that coaches' verbal aggressiveness leads to negative outcomes. More specifically, verbally aggressive coaches are perceived as less favorable by their athletes and presented less sportsmanship. On the other hand, athletes were less satisfied with their coaches and had lower win-loss percentages [14]. Finally, verbally aggressive coaches are likely to be considered as less credible by their athletes and they probably make them feel less motivated [15].

Other studies mainly examined the relationship between athletes' aggressiveness and the type of sport (contact or non-contact) [16,17,18]. Based on the afore-mentioned framework, [11] found that athletes who participated in a non-contact sport perceived their coaches as emitting less verbal aggressiveness compared to athletes participating in a high-contact sport. In fact, male volleyball players rated somatic anxiety higher and were more affected by the verbal aggressiveness of their coaches than female volleyball players [12].

2. ACHIEVEMENT GOAL THEORY

Achievement goal theory proposes that goal orientations are developed and altered through various socialization processes, including the motivational climate created by parents and coaches [19]. Ames [20,21] articulated motivational climate theory attempting to explore the influence of the training context on athletes' performance. According to this theory, motivational climate depends on the feedback, penalties and rewards that athletes receive from their coaches, parents, as well as from peers during training. It is also noticeable that the messages which they receive from significant others are of utmost importance [20]. According to several studies [22,20,21,23], teachers have two important choices to make regarding motivational climate: Performance and mastery.

In the first case, the criterion of success is outperforming others, while in the second case the criterion is learning and personal or team improvement and not the result. However, it is clear that individual differences exist in terms of athletes' perception of performance or situation. In sports, the two types of motivation climate can coexist. The perception of students who are oriented toward learning is positively related with the adoption of a task orientation. On the other hand, a competitive motivation climate prompts children to adopt "ego" orientation [22,24-27]. Similarly, [28,29] reported positive relationship on two different samples of college students.

The sport setting in general tends to be characterized by a strongly controlled climate. Especially in youth sports, coaches strongly intervene in the planning of training session, while they reward athletes' performance. In general, they play a determinant role in shaping of the sport setting framework. Consequently, athletes' active participation in decision making is quite limited [30]. Consequently, coaches play a determinant role in shaping the experience of their young athletes within the sport setting. Coaches' values and priorities as well as their interaction with youngsters are important factors that could influence children involvement in sports. The aforementioned coaches' activities influence motivational climate of the training session which in turn act as a catalyst on athletes' motivation [31] and on athletes' involvement in sports [32]. In addition, coaches' behavior is likely to urge athletes to adopt an aggressive behavior in case that they present aggressive behavior as well [33].

Extended research has been conducted concerning the motivational climate in the sport and physical education field. A mastery climate leads athletes to believe that their coaches tend to lay emphasis on personal improvement and consider athletes' mistakes as integral part of learning process. In this case, athletes' satisfaction comes from their personal progress. On the contrast, athletes' satisfaction with performance climate derives from their superiority over their teammates [34]. Performance climate leads young athletes to maintain negative feelings about their personal development. On the contrary, mastery climate and sources of enjoyment favor young athletes' personal development [35]. On the other hand, mastery climate leads athletes of different levels of performance to feel closeness, commitment, and complementarity with their coaches. Athletes believe that their coaches experienced the same

feelings with them while a performance climate leads to opposite outcomes [36].

In addition, the importance of mastery motivational climate was emphasized by other researches [37]. They found that young football players' perceptions of a mastery climate are positively correlated with the feeling of satisfaction and their perceived ability, and negatively correlated with rough play attitude. More specifically, mastery climate leads young basketball players to report that they enjoy playing for their coach and intend to play under coach guidance next year. Also, they regarded their coach as an expert in basketball and as a person able to teach basketball to kids efficiently. On the contrary, performance climate leads athletes to negatively evaluate their coaches [32]. Interestingly, individual sport athletes consider the mastery climate as more beneficial for their skill improvement compared to team sport athletes [38].

Finally, performance climate promotes elite female athletes' satisfaction with the competitive results of the team, however leads them to maintain negative feelings for their coaches. On the other hand, mastery climate leads athletes to report higher performance improvement and thus greater satisfaction with their performance while they create a positive view on their coaches [39]. On the other hand, performance-oriented climate is negatively correlated with elite athletes' satisfaction [40].

Research has also identified gender-specific differences concerning motivational climate. In particular, in the sport context male adolescence athletes reported that they perceived the training session as more performance-oriented than the females. On the other hand, female athletes perceived the practice as more mastery-oriented than male athletes [41].

3. SATISFACTION

Researchers [42] have defined athletes' satisfaction as "... a positive affective state resulting from a complex evaluation of the structures processes, and outcomes associated with the athletic experience" (p. 135). Self-determination theory suggested that when a person feels greater enjoyment as a result of his/her participation in an activity then his motivation can be regarded as more intrinsic [43]. Athlete's satisfaction could be influenced by a variety of factors. Coach is considered a factor that could significantly influence their athletes'

satisfaction [44]. Mastery climate is likely to promote the enjoyment that athletes can have with their coaches and teammates [32]. Athletes' perception of a mastery motivational climate reported greater satisfaction in physical education context [45,46]. The implementation of a teaching program which facilitates mastery climate promotes students' enjoyment derives from the participation in the program [47].

The relationship between verbal aggression and satisfaction in the sport and physical education context has been little explored. However, studies confirmed the negative impacts of verbal aggression on these fields as well. Physical education teachers' verbal aggressiveness is negatively related with athletes' satisfaction [10]. Researchers mainly focus on teachers' verbal aggression effects on students' satisfaction. The vast majority of studies revealed that teachers' verbal aggressiveness is negatively related with satisfaction [48]. Members of a task group who are argumentative and not verbally aggressive are satisfied with their group's communication [49].

The overwhelming majority of studies that examined the effect of verbal aggressiveness consistently identified negative consequences associated with its effects on sports and physical education field. Nevertheless, coaches' verbal aggressiveness perceived by athletes has not been related yet to motivation climate and athletes' satisfaction with the sports setting. The purpose of the study was to examine the motivation climate, athletes' satisfaction, and the relation of these factors with coaches' verbal aggressiveness during training.

Based on the theoretical framework and the purpose of the present study, the following research hypotheses were suggested:

1. It was expected that perceived verbal aggressiveness and performance climate would significantly be negatively correlated with athletes' satisfaction.
2. It was expected that perceived mastery climate would significantly be positively correlated with athletes' satisfaction.
3. It was expected that perceived teachers' verbal aggressiveness and perceived performance climate would significantly be negatively predict athletes' satisfaction.
4. It was expected that perceived mastery climate would significantly be positively predict athletes' satisfaction.

5. It was assumed that significant differences were found between gender and type of sports in verbal aggressiveness.
 - a. A greater percentage of non-contact sports athletes and female athletes will perceive as more verbal aggressive their coaches.
 - b. A greater percentage of contact sports athletes and male athletes will perceive as less verbal aggressive their coaches.
6. It was assumed that significant differences were found between gender and type of sports in mastery and performance climate.
 - a. A greater percentage of non-contact sports athletes and female athletes will perceive as more performance oriented the training session.
 - b. A greater percentage of contact sports athletes and male athletes will perceive as more mastery oriented the training session.

4. METHODS

4.1 Participants

Three hundred twenty four (324) athletes participated in this study (194 males and 130 females). Particularly, 198 of were practicing individual and 124 team sports. They were recruited on the basis of a list of sports clubs located in the Central Greece. More specifically, 73 runners, 54 throwers, 70 jumpers, 51 basketball players, 36 volleyball players, and 38 football players participated in the study. Respondents' age varied from 14 to 17 years ($M=14.74$, $SD=1.28$) Information sheets were distributed to the club coaches. Almost all of them responded and information was further provided to the athletes. Athletes were informed about the procedures of data collection and that their anonymity would be maintained. It was emphasized to them that they can refuse to participate or keep out of the study at any time. Finally, they agreed to respond as well. All athletes were volunteers and they filled in a consent form. Specific instructions were provided to athletes before they filled in the questionnaires. Researchers were available to provide explanations throughout the data collection process. Athletes were asked about experiences they had from previous training session they took part in. The above process has been used successively in various studies [50-53].

4.2 Measures

4.2.1 Verbal aggressiveness scale

The Verbal Aggressiveness Scale was used to assess athletes' perceptions regarding coaches' verbal aggressiveness [54]. The scale included eight items (e.g., "insults athletes" "makes negative judgments on athletes' ability" etc). The development of this measurement instrument was based on the theory [4]. Preliminary examination [54] supported the psychometric properties of the scale. Confirmatory factor analysis revealed satisfactory fit indices (CFA: .97, SRMR: .02). The internal consistency of the scale has been supported ($\alpha=.96$). Respondents were asked to respond on a five-point Likert-type scale (1=strongly disagree, 5=strongly agree). The value of Spearman-Brown coefficient for the scale indicates that the reliability of the entire scale is .93. Similarly, Cronbach's α coefficient value is .94. Both methods imply that the reliability of the verbal aggressiveness scale is high.

4.2.2 Motivational climate

The motivational climate was measured with the short version of the Learning and Performance Orientations in Physical Education Classes Questionnaire (LAPOPEQ) [55]. The questionnaire consists of two scales referring to perceptions of coach-initiated motivational climate. The first-seven item scale measures perceptions of mastery climate (e.g., "My coach is completely satisfied when every athlete's skills are improving") and the other six-item scale measures perceptions of the coach's try to promote performance climate (e.g., "My coach attends to the best records only"). Following the item "In this training session," responses to the items were indicated on a five-point Likert-type scale (5=strongly agree, 1=strongly disagree). CFA findings suggested that the overall 2 factors motivational climate model fit the data well [56]: (CMIN = 135.372 [df =54], CMIN/df = 2.507, TLI = .966, CFI = .976, RMSEA = .064). The Cronbach's alpha value varied between .74 and .87 indicating good internal consistency for the scale. Based on both methods values (Spearman-Brown coefficient = .85 and Cronbach's α = .90) it can be stated that the reliability of the mastery climate is high.

4.2.3 Lesson satisfaction scale

The Lesson Satisfaction Scale was developed [57] and has been successfully adapted to the

Greek language [58]. The scale consisted of five items (e.g., "Today I found training interesting") and the athletes respond to a Likert five-point scale from "totally disagree" to "totally agree" (Totally disagree=1, Disagree=2, Somewhat agree=3, Agree=4 and Totally agree=5). CFA findings suggested that the overall 2 factors motivational climate model fit the data well [56]: (CMIN = 34.947 [df =5], CMIN/df = 6.989, TLI = .935, CFI = .967, RMSEA = 0.537). The value of Spearman-Brown coefficient for the scale indicates that the reliability of the entire scale is .86. Similarly, Cronbach's α coefficient value is .90. Both methods imply that the reliability of the verbal aggressiveness scale is high.

4.3 Analysis

Prior to analysis, the accuracy of data entry, missing values, and fit between their distribution, univariate and multivariate outliers were examined. Normality was checked for each cell of the analysis (Std. skewness/kurtosis > 2.58). Univariate outliers were examined by using z scores > ± 3.29 . Also, multivariate outliers were detected by using the Mahalanobis distance method with $p < .001$ [59].

A hierarchical multiple regression analysis (blockwise) was performed. The hierarchical regression was chosen because the order in which predictors entered into the proposed model depends on predictors suggested by previous studies findings [60]. According to literature, coaches are considered influential individuals in athletes' performance and behavior, psychology and emotions as well [61]. Therefore, verbal aggressiveness which is considered as coaches' personality trait was used as the first predictor. On the other hand, coaches' activities influence motivational climate [62]. Consequently, mastery and performance motivational climate were included in the second stage of analysis aiming at predicting athletes' satisfaction.

Athletes' satisfaction was the predicted variable, and perceived coaches' verbal aggressiveness, athletes' perceived motivation climate emphasized on mastery and performance respectively were the predictor variables. Differences in athletes' perceptions about the verbal aggressiveness, and motivation climate respectively with the gender and type of sports, were examined by performing a two-way MANOVA analysis.

5. 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, mastery motivation climate, and performance motivation climate.

Pearson product moment correlation revealed that athletes' satisfaction were significantly and negatively correlated with verbal aggressiveness ($r = -.88, p < .01$) and performance climate ($r = -.94, p < .01$), but significantly positively ($r = .84, p < .01$) with mastery motivational climate. Finally, coaches' verbal aggressiveness was negatively correlated with mastery climate ($r = -.83, p < .01$) and positively with performance climate ($r = -.91, p < .01$) (Table 1 displays the correlation analysis).

Table 1. Pearson's product moment correlations between motivation climate, verbal aggression and satisfaction

Measure	1	2	3
Verbal aggressiveness	1		
Mastery climate	-.830**	1	
Performance climate	.908**	-.776**	1
Satisfaction	-.940**	.835**	-.884**

A multiple hierarchical regression analysis was conducted in order to predict athletes' satisfaction. The first analysis included as predictor verbal aggressiveness while the second one included mastery and performance climate as well. The regression equation with verbal aggressiveness was significant, $R^2 = .88$, adjusted $F(1, 322) = 2334.78, p < .001$. The regression equation with mastery and motivation climate was also significant, $R^2 = .89, F(2, 320) = 12.58, p = .001$. This pattern of results suggests that athletes' satisfaction is negatively predicted by coaches' verbal aggression, while mastery and performance climate contribute the least to that prediction (Table 2 displays the regression analysis).

Two-way MANOVA was performed to examine differences in motivational climate and verbal aggressiveness between gender and the sports' type (contact and non-contact). The findings showed statistically significant multivariate effect

on gender ($F[3,316] = 8.99, p < .01, \eta^2 = .08$) and on sports' type ($F[3,316] = 6.59, p < .01, \eta^2 = .06$), but no interaction between gender and sports' type was detected.

The examination of the univariate effects revealed significant effect of gender on verbal aggressiveness ($F[1,318] = 24.38, p < .01, \eta^2 = .07$), mastery climate ($F[1,318] = 24.35, p < .01, \eta^2 = .07$) and performance climate ($F[1,318] = 20.40, p < .01, \eta^2 = .06$). An examination of the mean scores indicated that female athletes presented higher levels of perceived verbal aggressiveness ($M = 3.65, SD = 0.75$) and performance climate ($M = 3.48, SD = 1.0$) than the male ones ($M = 3.09, SD = 0.85$ and $M = 2.90, SD = 0.86$, respectively). On the contrary, male athletes presented higher levels of perceived of mastery climate ($M = 2.46, SD = 0.65$) than female ($M = 1.98, SD = 0.73$).

Also, the examination of the univariate effects revealed significant effect of sports' type on verbal aggressiveness ($F[1,318] = 17.04, p < .01, \eta^2 = .05$), mastery climate ($F[1,318] = 17.10, p < .01, \eta^2 = .05$) and performance climate ($F[1,318] = 17.31, p < .01, \eta^2 = .05$). The examination of mean scores of sports' type revealed that athletes of non-contact sports are characterized by higher levels of perceived verbal aggressiveness ($M = 3.60, SD = 0.86$) and performance climate ($M = 3.45, SD = 1.0$) than athletes of contact sports ($M = 3.14, SD = 0.75$ and $M = 2.91, SD = 0.89$, respectively). Finally, athletes of contact sports perceived training session as more mastery oriented ($M = 2.42, SD = 0.62$) than athletes of non-contact sports ($M = 2.0, SD = 0.74$).

6. DISCUSSION

The goal of this study was twofold: (a) To explore the relationship between coaches' verbal aggression and motivational climate; (b) To explore the influence of coaches' verbal aggressiveness and training motivational climate on athletes' satisfaction; and (c) To examine differences in motivational climate and verbal aggressiveness between gender and the sports' type (contact and non-contact). The findings of the present study are congruent with studies which have been conducted in the educational and in sport field. Specifically, athletes' motivation proved to be negatively influenced by their coaches' verbal aggressiveness [15]. Additionally, the findings of previous studies indicated that teachers' verbal aggressiveness is

Table 2. Hierarchical regression analysis for variables predicting athletes' satisfaction

Variable	R ²	ΔR ²	B	SE B	β
Step 1					
Verbal aggressiveness	.878		-0.91	0.019	-.93**
Step 2		.011			
Verbal aggressiveness			-0.70	0.048	-.72**
Mastery climate			0.14	0.037	.12**
Performance climate			-0.12	0.038	-.13*
Total R²	.889				

*p < .01; **p < .001

negatively related with students' state motivation [63,64]. State motivation seems to share common background with intrinsic motivation which was in turn found to be positively related with mastery climate [65]. Provided that in a training session competition is a dominant characteristic and coaches lay emphasis on personal performance by prioritizing achievement such as "who can run faster" or "who will be the most valuable player", then it is likely to urge coaches to adopt an aggressive behavior because of the tension and anxiety promoted by such a context. On the other hand, in a training session in which learning is the prevalent goal and coaches focus on their athletes' personal development; they are likely to practice less verbally aggressive behavior. Then arguably verbal aggressiveness is expected to positively related with performance climate and negatively with mastery climate.

Previous study's findings [61] suggested that coaches' personality plays a determinant role in the interrelationship with their athletes and influences their emotions as well. In this specific case, athletes' satisfaction was influenced by coaches' verbal aggressiveness and motivational climate of training. Coaches' verbal aggressiveness emerged as the most important negative predictor of athletes' satisfaction. Similarly, the findings of a previous study suggested that coaches' verbal aggressiveness perceived as unpropitious by their athletes and lead them to be less satisfied with their coaches [14]. Also, this is in accordance with the findings of study [10] which suggested that teachers' verbal aggressiveness is negatively related with undergraduate physical education students' satisfaction. A reasonable explanation of this finding could be the fact that athletes prefer to receive positive and encouraging feedback from their coaches [66,67], which is perceived by athletes as rewarding. In any case, coaches' verbal aggressiveness could be perceived by athletes as positive reinforcement. Although, verbal aggression in specific circumstances may

help coaches to motivate their athletes to perform well and to confront with the demands of a competitive environment [68]. However, the findings of the present study did not support this perspective. A rational explanation could be the fact that the participants in the present study were adolescences while in aforementioned study young adults. The literature revealed that during puberty develops an inconsistent relationship between adolescents' emotion, cognition and behavior which may influence their understanding and increase their need for rewards [69]. Thus arguably the participants in the present study may perceived their coaches as more verbally aggressive compare to young adults of the aforementioned study.

Similarly, when athletes deem the training session more performance-oriented then they feel less satisfaction. In contrast students which perceived as mastery-oriented the training session found to be more satisfied with the training session. This finding is compatible with previous studies which suggested that mastery-oriented climate influences positively young athletes' satisfaction [70,71,47]. Taking into consideration [72] suggestion that in a mastery-oriented training session athletes' satisfaction derived from their skill improvement then arguably athletes of the present study reported more satisfied within this context, because athletes could improve their skill through and outperforming themselves than other athletes.

Regarding differences concerning gender, it was supported that female athletes were keener on considering their coaches more verbally aggressive than male athletes. The aforementioned finding is in accordance with a study conducted also in Greece [13]. Bearing in mind that boys are more accustomed to physical violence or bullying episodes than girls [73] then it is rational to assume that it is likely to ignore their coaches' verbally aggressive behavior. As far as the motivational climate is concerned, the findings of the present study are aligned with

previous studies' findings [71,41] which also emphasized that female athletes feel less satisfied with their training than male athletes. This implies that female athletes perceived the training climate as performance-oriented rather than as mastery-oriented in contrast to male athletes. Taking into account [74] study, this can be attributed to the fact that social stereotype demands from male to be more competitive and skillful than female. Since female perceived coaches as more verbally aggressive and the training session as more performance-oriented than male athletes do, then arguably they appear to be less satisfied with the training session.

The aforementioned findings partially support the findings of a study conducted [11] which also pointed out that athletes of non-contact sports perceived their coaches as less verbally aggressive and the training session as more characterized by mastery climate while they expressed greater satisfaction during the practice than athletes of contact sports. Although the present study included track and field athletes as well as football players it shows that contact type sport athletes still perceive their coaches as more verbally aggressive than non-contact type sport athletes. Thus, it can be assumed that athletes participating in contact sports inherently emit more frequently aggressive behaviors than non-contact sports due to the nature of the sports (physical contact, prolonged tension and effort for win). For example, researchers [17] found that athletes who participated in high contact sports (e.g., rugby) are more aggressive than those who participated in low contact sports (e.g., basketball). Similarly, contact sport coaches are likely to practice aggressive behaviors under the pressure of the game conditions. Consequently, non-contact sport athletes are expected to perceive their coaches as less verbally aggressive than contact sports athletes do.

The following limitations should be considered in the present study. Firstly, the cross-sectional detects only association and no causality between the variables. Thus, a longitudinal study could be challenge for future research. Secondly, the athletes came from a specific area only. Future studies could recruit larger number of athletes from other districts of Greece in order to increase findings' generalizability. Thirdly, there was a disproportional ratio between team and individual sports athletes. A more balanced sampling is recommendable in future research. Peer influence on motivational climate and athletes' satisfaction should be included in a

future study. Also, a study could be conducted through the lens of the qualitative approach and examine athletes' underlying perception of motivational climate and coaches' verbal aggressiveness during practice as well as its effect on training satisfaction. In spite of the aforementioned limitations, the present study is expected contribute to the literature of verbal aggression and motivational climate in the sport setting. It brings to the forefront the relevance of coaches' aggressive behavior for athletes' motivation climate and satisfaction which have often been neglected.

Based on the findings of the present study and the literature about coaches communication, it can be concluded that coaches tendency to use negative communication techniques such as verbal aggression, not only do not lead to enhance performance but could additionally be harmful for their athletes [75]. In the light of the afore-mentioned findings, it is imperative that coaches adopt a mastery climate and avoid verbally aggressive behaviours in order to increase their athletes' satisfaction. However it is counterintuitive to be suggested that coach purposefully aim in decreasing his/her athletes' motivation and satisfaction. Thus, coaches should be informed about the harmful consequences of their verbal aggressive behaviour on their athletes' emotions. As researchers [76] suggested coaches could be trained by participating in coaching programs, in which they will be informed about the constructive and destructive characteristics of the communication and their consequences on their athletes. Only then they will be able to adopt the appropriate communication traits attempting to establish an excellent training climate.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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