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The impact of abusive coach behavior on athletes' motivation: analyzing the mediating role of psychological stress

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Abstract

Introduction: Coaching in sports plays a paramount role in guiding, motivating, improving, and enhancing the overall development of athletes for better performance in competition. Meanwhile, negative coaching behavior may have a detrimental effect on the well-being of athletes and boost psychological stress of athletes, which directly decreases the motivation and performance of athletes. The present study inquired into the influence of abusive coach behavior on athletes' motivation, mediated by psychological stress.

Method: Survey model data were gathered from 503 student-athletes (male = 192: 62% and female = 113: 38%) from different public sector universities, Khyber Pakhtunkhwa, Pakistan. Structure equation model was utilized to test the hypothesized model.

Results: The findings revealed that abusive coach behavior has a significant and negative influence on athletes' motivation, while also having a positive and significant effect on the psychological stress of student-athletes. Meanwhile, the psychological stress has partial mediation in the relationship between abusive coach behavior and athletes' motivation.

Discussion: Finally, the output of the study underlined the need for the coaches and administration of sports to comprehend the controlling, strict, and abusive behavior of coaches that cause to increase psychological stress and anxiety which ultimately decrease motivation among student-athletes in sports training and competition, and establish some proper code of conduct to regulate such kind of abusive behavior for the well-being and performance of student-athletes at university level.

Keywords: Abusive coach behavior, student-athlete, psychological stress, and motivation.

Introduction

Coaches play crucial roles in inspiring athletes, and even minor efforts of a coach can have a paramount influence on players' drive, efforts, as well as attitude (Weinberg & Gould, 2003). One of the most important factors influencing the motivational level of athletes is their relationship with their coach (Mageau & Vallerand, 2003). Coaching behaviors may have a substantial impact on both extrinsic motivation, which results from external outcomes, and intrinsic motivation, which results from engaging in specific activities for one's pleasure and fulfillment. To boost their athletes' motivation, coaches, for instance, often employ techniques including verbal feedback, nonverbal communication, and challenging players (Hansen, Gilbert, & Hamel, 2003).

Additionally, research indicates that the association between a coach and an athlete has a paramount influence on performance, satisfaction, and overall life quality (Frey et al., 2006). When deciding which motivational techniques are most effective to influence motivation and performance, coaches are frequently urged to take into account the contest level of athletes, whether it is high school, recreational, or professional level (Hansen, Gilbert, & Hamel, 2003).

According to Roberts (1993), motivation may be defined as "personality aspects, social factors, and cognitive abilities are believed to be put into play when an individual assumes an assignment at which he or she is assessed, moves in competition against an opponent, or tries to obtain some standard of excellence." It is critical to consider athletes' power on one's own success striving potential since coaches often link motivation with effort (Hansen, Gilbert, & Hamel, 2003).

Numerous studies have analyzed that motivation is a key aspect in sports' achievement (Vallerand, 2007). Athletes' cognition, performance, and behaviors were revealed to be highly influenced by understanding and fostering athletes' motivation (Ryan & Deci, 2000; Li et al., 2021). Numerous studies have examined how coaches' actions, including decision-making style, incentive distribution, and feedback techniques, are crucial elements influencing players' motivation because of the significance of motivation in sports performance (Mageau & Vallerand, 2003).

In sports psychology, self-determination theory (SDT; Deci and Ryan, 1985; Ryan and Deci, 2000) and accomplishment goal theory (AGT; Nicholls, 1989) are the two most popular theories of motivation. Based on the three central demands of relatedness, competence, and autonomy, SDT focuses on psychological behavior that is organically driven (Deci & Ryan, 1985).

AGT, on the other hand, emphasizes goal orientations more, especially task and ego orientation (Nicholls, 1989). This study investigated the impact of abusive coach conduct on players' motivation as well as the mediating function of psychological stress in athletes' motivation at the collegiate level.

In particular, it was predicted that coaching likeability would have a negative correlation with perceived stress and a positive correlation with student athletes' motivation. It was postulated that certain motivational factors, including fitness, competence, career, and student-athletic motivation, would be adversely affected by abusive coaching conduct. Furthermore, it was suggested that higher psychological stress would act as a mediator in the link between university players' motivation and abusive coach conduct, as well as between self-reported competence and experienced stress.

Numerous sport management researchers, including Davis and Jowett (2014) and Kim, Kim, and Won (2018), have examined how college coaches with different leadership philosophies, such as transformational, transactional, and servant, affect their athletes' performance, attitudes, and well-being. Even though coaching is the subject of several sports science research studies, relatively few of these studies examine the "dark side" of coaching, a term frequently used to characterize the unfavorable aspects of coaching. Think about abusive leadership. This leadership style includes followers' assessments of how frequently a leader participates in aggressive verbal and nonverbal actions, such as physical intimidation and disparaging remarks.

In contrast to research that examined the effects of harmful coaching practices on collegiate athletes, a study by Tepper (2000) has been connected to a number of unfavorable results, such as follower discontent, stress, and even a wish for players to stop participating in sports. Hence, the goal of this research work was to regulate the degree to which players' motivation is impacted by the abusive behavior of university coaches. The mediating role of psychological stress is also investigated in this study (Ogunfowora, 2013).

According to research, athletes' psychological burnout is made worse by coaches' abusive supervision, which includes public humiliation, verbal abuse, emotional neglect, and harsh criticism (Cho, Choe, & Kim, 2019; Mellano, Horn, & Mann, 2022). In a long-term study of teenage athletes in Switzerland, Gerber, Gygax, and Cody (2024) discovered that athletes' feelings of burnout significantly increased when coaches engaged in emotionally abusive behaviors, such

as screaming at them or making fun of them. In particular, these athletes reported experiencing emotional tiredness more quickly, losing interest in practice and competition, and even considering giving up sports entirely. From a motivational standpoint, players' excitement and drive for training are undermined by abusive coach monitoring (Zeng & Yin, 2025).

Self-Determination Theory states that people are particularly vulnerable to burnout when their core psychological demands for competence, relatedness, and autonomy are consistently unsatisfied (Mageau & Vallerand, 2003). Coaches who participate in abusive supervision often take a very controlling approach, depriving athletes of the chance to make their own decisions and undermining their self-esteem via continual criticism and derogatory remarks. For instance, when athletes observe their coaches as being overly monitoring and providing ambiguous or negative responses, they are likely to grow harmful attitudes toward them, feel more anxious, and show a severe decline in motivation toward sports (Fransen et al., 2018).

Preliminary research indicates that athletes suffer negative consequences from emotional abuse, even though emotionally abusive practices in sports are accepted and normal. Furthermore, a decline in desire for the activity (Yabe et al., 2019). A study found that athletes have linked the emotional abuse they experienced from their coaches to increased rage, sadness, anxiety, dissatisfaction, and disorders in eating habits (Stirling & Kerr, 2013). These outputs are tied to research on child abuse that shows emotional maltreatment raises the risk of low self-esteem, eating disorders, psychiatric therapy, depression, as well as suicide (Mullen et al., 1996).

The lasting repercussions of emotional abuse were not inquired into in the field of sports, despite preliminary data in sport indicating a wide variety of detrimental effects on athletes due to undergoing emotionally abusive coaching tactics. Research on child abuse has shown that the consequences of abuse last a long time and affect the victim long after the abuser has left (Arata, Langhinrichsen-Rohling, & Farrill-Swails, 2005; Lansford et al., 2003).

It was not investigated in sports, though the results from the literature on child abuse could apply to sports, or there might be characteristics of the players or the sporting environment that explain differing impacts. Thus, investigating the long-term consequences of emotionally abusive coaching techniques was the goal of this study. More precisely, the objective of the study was to explore how emotionally abusive coaching tactics affected female athletes throughout their time as competitive athletes and in their post-retirement life. This study focused on female athletes

Because research outside of sports has shown that women are more expected to experience gender-based violence than boys and men (Ellsberg, 2006), and research within sports has shown that female athletes are more likely than male athletes to experience emotional abuse (Kerr, Willson, & Stirling, 2019).

1.2 Objectives of the Study

1. To assess the influence of abusive coach behavior on athletes' motivation
2. To determine the mediating effect of psychological stress between abusive coach behavior and athletes' motivation.

2. Literature of the Study

According to current research, coaches' interpersonal actions and coaching philosophies help athletes succeed both within and outside of sports (Mageau & Vallerand, 2003). The majority of this study so far has been athlete-focused and has not examined how psychological experiences of coaches affect the conduct of their coaching (McLean & Mallet, 2012). Research should look at the needs and experiences of coaches as well as how their actions affect their players because coaches are so important in helping athletes achieve their goals (Giges, Petipias, & Vernacchia, 2004).

2.1 Abusive Coach Behavior

The term "abusive supervision" describes persistent hostile verbal and nonverbal actions (apart from physical contact) directed at subordinates (athletes) by a superior (coach), with the subordinate's subjective assessment of the severity of these behaviors. According to research, 22–25% of athletes who compete in sports have encountered abusive coach supervision (Tepper, 2000). Some contend that this abusive behavior has been normalized and justified as a result of the idea that "strict coaches produce top athletes" (Stirling & Kerr, 2014). However, other research has demonstrated that athletes who experience abusive supervision feel dissatisfied, foolish, and unworthy (Stirling & Kerr, 2008). Athletes who experience abusive coach supervision become more emotional and less tolerant (Yukhymenko-Lescroart et al., 2015).

Emotionally abused athletes frequently exhibit social disengagement, eating problems, sadness, and dissatisfaction. The most frequent ways of emotional abuse that elite athletes face from their coaches are shouting, belittling, threatening, and humiliating them (Gervis & Dunn, 2004). Stirling and Kerr (2008) also classified the negative behaviors of coaches into three categories: (a) physical behaviors (such as acts of aggression like throwing, punching, and hitting walls); (b) verbal behaviors (such as shouting and yelling at athletes, making disparaging remarks, and humiliating athletes; and (c) denial of attention and support (such as disregarding athletes and eliminating from practice).

2.2 Motivation

Several research works have surveyed motivation as a paramount aspect of sports achievement (Vallerand, 2007). Athletes' performance, cognition, and behaviors were shown to be highly influenced by an understanding of and support for athletes' motivation (Mallett, 2005; Ryan & Deci, 2000). Numerous studies have examined how coaches' actions, including decision-making style, incentive distribution, and feedback techniques, are crucial elements influencing players' motivation because of the significance of motivation in sports performance (Mageau & Vallerand, 2003). A framework for analyzing experiences of coaches and their interactions with athletes is provided by self-determination theory (SDT; Deci & Ryan, 1985; Hagger & Chatzisarantis, 2007).

2.2.1 Self-Determination Theory

According to self-determination theory (SDT), environmental circumstances and the degree to which the three fundamental psychological needs are met in a particular activity determine the level of motivation for that activity (Deci & Ryan, 1985). The environment's structure (e.g., conflicts within domains, organizational structure, etc.) and the individuals inside it (e.g., athletes, coaches) are examples of contextual variables. Psychological requirements include the basic need for relatedness (social support from others), competence (capacity and abilities to master objectives), and autonomy (adequate opportunities to be involved in actions (Deci & Ryan, 2002). According to SDT, people are more likely to feel need fulfillment if the environment supports the three psychological needs. When needs are met, people become autonomously motivated to participate in an activity because they want to, out of curiosity or interest (Deci & Ryan, 1985). Because it fosters favorable results, including improved learning, interest, effort, perseverance, and health, autonomous motivation is seen to be ideal (Mageau & Vallerand, 2003).

On the other hand, people are more likely to feel frustrated if the environment deliberately denies them their three psychological needs (Bartholomew et al., 2011). People experience need frustration when they feel compelled to engage in specific actions (autonomy frustration), get harsh criticism (competence frustration), or experience rejection from others (relatedness frustration; Vansteenkiste & Ryan, 2013). In terms of need satisfaction and frustration, low need satisfaction does not correspond to high need hindrance; hence, both constructs must be studied independently because they provide different results (Sheldon, 2011). People who suffer from thwarting of basic psychological needs are more likely to create organized motivation for an activity, where they engage in it to avoid guilt, obtain incentive, or thrill others. Because it can lead to unfavorable results like burnout, weariness, illness, or failure, controlled motivation is seen as less ideal (Deci & Ryan, 1985).

2.3 Psychological Stress

Psychological stress plays a significant role in shaping athletes' motivation, often exerting a detrimental influence on both their psychological functioning and performance outcomes. Athletes frequently encounter stressors such as intense competition, high training loads, fear of failure, and expectations from coaches and spectators, all of which can diminish their intrinsic motivation, the internal drive to participate for enjoyment and personal growth. According to Deci and Ryan (2000), intrinsic motivation is essential for sustained engagement, yet chronic stress can shift athletes toward extrinsic motivation or even amotivation, thereby reducing persistence and satisfaction. Empirical evidence indicates that prolonged psychological stress contributes to mental fatigue and burnout, characterized by emotional exhaustion and a reduced sense of accomplishment, which are strongly associated with declining motivation levels. Furthermore, stress negatively affects athletes' cognitive appraisal processes; as highlighted by Schwarzer (2014), individuals under stress are more likely to understand the condition of contest as threats rather than challenges, leading to reduced confidence and lower motivational intensity. Anxiety, closely linked with stress, has also been shown to impair performance and weaken motivational focus. However, it is important to note that moderate levels of stress may sometimes enhance motivation by increasing alertness and readiness when athletes possess effective coping strategies. Overall, the literature suggests that excessive and unmanaged psychological stress undermines athletes' motivation, emphasizing the importance of stress management interventions, psychological skills training, and supportive coaching environments to sustain motivation and optimize performance.

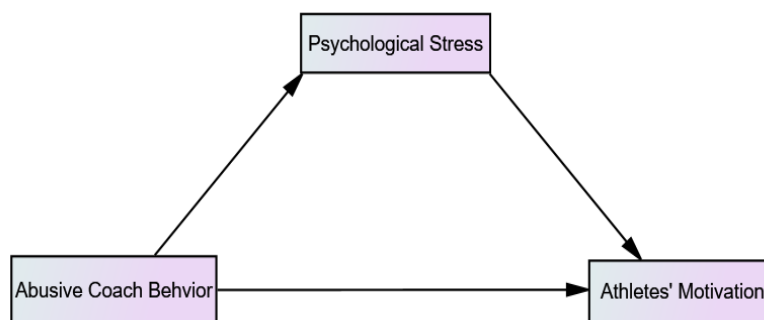


Figure 1: Proposed research model

3. Method and Material

3.1 Participants and Procedure of Survey

The population of the study was the student-athletes who participated in intervarsity-level sports competitions during the 2024-2025 session at a public-sector university in Khyber Pakhtunkhwa (KP), Pakistan. There were a total of 1520 student-athletes. A total of 305 student-athletes (male = 192: 62% & female = 113: 38%) were selected as the sample through a random sampling method. The researcher has personally visited different public sector universities of KP. Before conducting the survey, the researcher had received a permission letter from the concerned authority and also obtained a consent letter from the participants. The researcher explained the aim of the study and the procedure for filling out the questionnaires to the participants. Three adapted scales were used in the study.

To measure the perception of student-athletes regarding the abusive coach behavior on motivation, the Abusive Coach Behavior Questionnaire (ACBQ) was utilized. It consists of ten items with five-point Likert scale from 1(never) to five (Always) (Alexander, Stafford, & Lewis, 2011). Athlete motivation scale that comprised of total 10 item ranging from 1(strongly disagree) to 5 (strongly agree) was utilized to assess the motivation level of athletes (Pelletier et al., 2013). While 08 item scale of psychological stress developed by (Mitchell, Crane, & Kim (2008) was used as mediating variable in study were also scored five-point liker scale ranging from 1 (strongly disagree) to 5 (strongly agree). All the questionnaires were administrated among the expert of sports sciences and psychology in order to validate and extract the irrelevant and ambiguous items of the questionnaires. For internal consistency of the items of the scales, the Cronbach alpha method was utilized. The Cronbach alpha values for abusive coach behavior, athlete motivation, and psychological stress are 0.82, 0.88, and 0.78, respectively.

3.2 Data Analysis

In the current study, for data analysis, AMOS-24 was used. Confirmatory factor analysis (CFA) was applied to assess the measurement model, sequence equation model (SEM) was used to check the research model. Furthermore, path analysis was used to assess the mediating effect of the model (Anderson & Gerbing, 1988). For CFA, SEM, and mediation analysis, the researcher has used model fit indices (chi-square, goodness of fit index (GFI), comparative fit index (CFI), Tucker-Lewis Index (TLI), Root Mean Squared Error of approximation (RMSEA), and Standardized Root Mean Squared Residual (SRMR) to analyze the model fit of the structure. While the indexes are usually suggested to measure the equation model and also the mediation model (Browne & Cudeck, 1992; Hu & Bentler, 1999; Kline, 2015). In addition, Cronbach's alpha was used to assess the internal consistency of the items of the questionnaires. Descriptive statistics were utilized to describe the demographic information of the sample and the mean and standard deviation of each and every construct.

3.3 Results

The result of the CFA revealed acceptable model fit for measurement (chi-square = 3.45, CFI = 0.938, GFI = 0.943, TLI = 0.917, RMSEA = 0.078, and SRMR = 0.0815, respectively). Then, after, construct reliability (CR) and average variance extracted (AVE) were established (Ahmed et al., 2016). While discriminant validity was established to measure the correlation coefficient among the latent variables, which were less than the square root of AVEs. The output of convergent and discriminant validity with the findings of correlation analysis is shown in Table 3. For internal consistency of items of the constructs, Cronbach's α was utilized. The Cronbach's α for abusive coach behavior = 0.82, for psychological stress = 0.78, and for athlete motivation = 0.88, respectively (Lance et al., 2006).

3.3.1 Descriptive Statistic

Descriptive statistics (mean, frequency, percentage, and standard deviation) were used to provide demographic information and characteristics of the sample.

Table 1: Demographic summary of the subjects = 305

		N	%
Gender	Male	192	68
	Female	113	38
Experience	< 6 months	135	44.3
	6 months	105	34.4

1 years	36	11.8
1- 2 years	18	5.9
3 & more years	11	3.6

Calculated by the author

The demographic results show that males (68%) are slightly more represented than females (38%) in the sample. In terms of experience, most participants are beginners, with 44.3% having less than 6 months and 34.4% around 6 months of experience. Only a small proportion have higher experience levels, with very few (3.6%) having 3 or more years.

3.3.2 Measurement Model

Table 2: Measurement Model

	Λ	AVE	CR	α
Abusive Coach Behavior (Gervis & Dunn, 2004)	0.52418	0.4764	0.899799	0.82
What impacts have you experienced as a result of abusive coaching behavior?	0.3588	1		
How often have you experienced abusive behaviors during your training?	0.36603			
Did you report the abusive behavior?	0.68063			
If you reported the behavior, was any action taken?	0.50552			
Have these impacts influenced your decision to quit or change your sport?	0.5625			
Did the abusive behavior affect your relationships with teammates or others?	0.45428			
Did the behavior lead to any long-term psychological or emotional effects?	0.55056			
Did you notice any changes in your physical performance since experiencing abuse?	0.4624			
Do you feel stressed or anxious during training sessions?	0.29921			
Do you believe that your mental health has been affected by your coach's behavior?				
Athletes' motivation				
I participate in sports because I enjoy it.	0.828	0.5168	0.910508	0.88
I see sports as an important part of my life.	0.93			
I participate because I like learning new skills.	0.759			
I see sports as an important part of my life.	0.55			
I participate because it is beneficial for me.	0.568			
I believe sports help me achieve my goals.	0.983			
I feel guilty when I miss training.	0.568			
I feel pressure to continue sports.	0.637			
I participate to receive rewards or recognition.	0.553			
I don't see any benefit in continuing sports.	0.64			
Psychological Stress				
How often have you been upset because of something that happened unexpectedly?	0.582	0.4647	0.8707031	0.78
How often did you feel that you are unable to control the important things in your life?	0.68	3		
How often have you felt nervous and stressed?	0.668			
How often did you feel confident about your ability to handle your personal problems?	0.609			
In the last month, how often have you felt that things were going your way?	0.722			
How often did you find that you could not cope with all the things that you had to do?	0.615			
How often have you been able to control irritations in your life?	0.952			
How often have you been angered because of things that were outside your control?	0.542			

Table 3: Discriminant Validity

		ACB	PS	MT
1	Abusive Coach Behavior	0.6902		
2	Psychological Stress	0.371	0.681	

3	Athletes' motivation	-0.184	-0.754	0.718
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The values on the diagonal indicate the square root of AVEs. ACB: Abusive coach behavior, PS: Psychological stress, MT: Athlete motivation. $P < 0.000$, $p < 0.01$, and $p < 0.000$, respectively.

3.3.3 Structure Model

This model includes abusive coach behavior, psychological stress, and athletes' motivation. These were tested utilizing maximum likelihood estimation. After the validation of the proposed model, structure equation model (SEM) was tested to accept or reject H1 and H2. The model fit of revise structure model was accepted (chi-square = 3.45, CFI = 0.938, GFI = 0.943, CFI = 0.944, TLI = 0.917, RMSEA = 0.078 and SRMR = 0.0815 respectively). The results of the SEM indicate ACB has a negative and statistically significant effect on Motivation (MT) ($\beta = -0.164$, $p = 0.013$). This suggests that as abusive coaching behavior increases, the motivation level of athletes tends to decrease. It means that H1 has been accepted.

3.3.4 Mediation Model

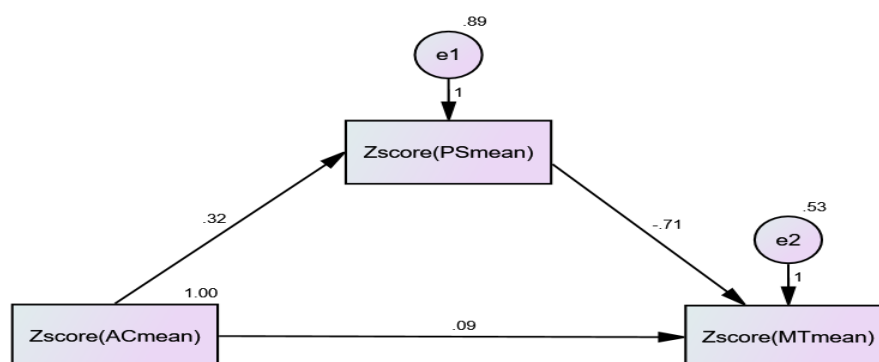


Figure 2 proposed structure research model with path coefficients

Table 4: Direct effect

		B	SE	t	CI
Abusive	Coach	0.32	0.054	5.991	
Behavior → PS					0.204, 0.547
Psychological Stress →		-	0.044	-16.45	0-
MT		0.71			.860, - 0.555
Indirect effect					
ACB→PS→MT		-	.043	-5.35	-
		0.23			.324, - .154

ACB, abusive coach behavior; PS, Psychological stress; MT, motivation.

The results show that ACB has a positive effect on PS ($\beta = .32$), indicating that an increase in abusive coach behavior (ACB) leads to an increase in psychological stress (PS). However, PS has a strong negative effect on motivation (MT) ($\beta = -.71$), meaning higher PS significantly reduces MT. Using the bootstrapping approach, 5000 bootstrap samples were created using random sampling with replacement from real data in order to test the mediating impact and evaluate the internal mechanism among the variables of the projected model. However, the hypothesis was tested using a single indirect channel in the suggested model. Athletes' motivation and abusive coach conduct were significantly mediated by PS (ACB→PS→MT) -0.23. Therefore, it seems that PS mediates the link between ACB and MT, and H2 is supported. The indirect pathway shows that ACB affects MT mainly through PS, and this effect is negative in nature.

4. Results and Discussion

This study aims to assess the influence of abusive coach behavior on athletes' motivation. There were total two hypothesis were made. Both developed hypotheses were supported. The output of the study assessed in understanding the influence of abusive coach behavior on the motivation level of student-athletes and also the mediating role of psychological stress in explaining the relationship between abusive coach behavior and athletes' motivation at the university level, Khyber Pakhtunkhwa (KP), Pakistan.

The descriptive statistics of the study stated that student-athletes at the university level at KP illustrated an average mean score for abusive coach behavior of 0.47641, for athletes' motivation of 0.51618, and for psychological stress of 0.46473 (on a five-point Likert scale). In the present study, there were two main findings from the structural equation modeling (SEM). The 1st

finding reported that abusive coach behavior has a significant impact on athletes' motivation at the university level. Such findings were found in the previous study of Stirling and Kerr (2008) demonstrated that athletes who experience abusive supervision feel dissatisfied, stressed, and unworthy. Similarly, it is reported that 22–25% of athletes who compete in sports have encountered abusive coach supervision (Tepper, 2000). Furthermore, in a long-term study of teenage athletes in Switzerland, Gerber, Gygax, and Cody (2024) discovered that athletes' feelings of burnout significantly increased when coaches engaged in emotionally abusive behaviors, such as screaming at them or making fun of them. In particular, these athletes reported experiencing emotional tiredness more quickly, losing interest in practice and competition, and even considering giving up sports entirely. From a motivational standpoint, players' excitement and drive for training are undermined by abusive coach monitoring (Zeng & Yin, 2025).

In light of the above findings and studies, it means that an abusive type of coaching behavior has detrimental impacts and may enhance stress, anxiety, exhaustion, and even withdrawal from training or competition. There should be rules and regulations for monitoring this kind of coaching behavior. Because a supportive way of coaching behavior may increase the interest, performance, and motivation of the athletes in training or competition. Such type of behavior is notable and frequently found by prior studies that the association between a coach and an athlete has a paramount influence on performance, satisfaction, and overall life quality (Frey et al., 2006).

Second, in contrast to the previous finding, the quality of connections between coaches and players was immediately and favorably influenced by the democratic coaching style. Additionally, via the interaction between coaches and athletes, autonomous motivation and athlete satisfaction were indirectly impacted by democratic leadership. These findings are generally consistent with earlier studies on these kinds of connections. Coaches seem to foster respect and trust with their players by exhibiting more democratic leadership behaviors (Gao et al., 2021; Mageau & Vallerand, 2003).

The findings of the study also revealed that abusive coach behavior has a significant impact on the psychological stress of athletes. Such a result is reported in past studies that psychological burnout is made worse by coaches' abusive supervision, which includes public humiliation, harsh criticism, emotional neglect, and verbal abuse (Cho, Choe, & Kim, 2019; Mellano, Horn, & Mann, 2022). Likewise, the consequences of abusive coach behaviors on college athletes were linked to some adverse consequences, including stress, dissatisfaction, and even dropout in participation of sports (Tepper, 2000). Such a coaching behavior may hinder the mood, interest, and performance of athletes and even result in anxiety, stress, and dropout from training and competition.

Regarding the aforementioned output, prior research has shown that while intrinsic drive is necessary for prolonged engagement, long-term stress can cause athletes to become less persistent and satisfied by shifting them toward extrinsic motivation or even amotivation. Long-term psychological stress is linked to mental weariness and burnout, which are marked by a diminished sense of achievement and emotional depletion and are closely linked to a decline in motivation, according to empirical research (Deci & Ryan, 2000).

On the other hand, according to House (1983), followers' assessments of the degree to which leaders offer their followers informational, instrumental, emotional, and appraisal assistance are referred to as helpful leader behaviors. In addition to having a deep interest in their followers' needs, preferences, and degrees of job satisfaction, supportive leaders are able to identify their tasks and responsibilities to help their followers (House, 1983).

In addition, the finding reported that psychological stress has a significant mediating role in explaining the relationship between abusive coach behavior (ACB) and athletes' motivation. Specifically, abusive coach behavior has significant direct and indirect influence on athletes' motivation through psychological stress at the university level, Khyber Pakhtunkhwa, Pakistan. Considering how the motivation and commitment of student-athletes to their team in sports competition were affected via ACB. Such findings of the mediation display the imperative role of psychological stress in the motivation and amotivation of student-athletes in sports teams at the university level.

The finding reported that psychological stress partially mediates the relationship between abusive coach behavior and athlete motivation suggests a nuanced mechanism through which coaching practices influence athletes' internal drive. Abusive coaching behaviors such as verbal aggression, intimidation, or excessive criticism can act as potent stressors that disrupt athletes' emotional and cognitive balance. According to the transactional model of stress proposed by Lazarus and Folkman (1984), individuals appraise such negative interactions as threats, which in turn trigger psychological stress responses. This stress can undermine intrinsic motivation by shifting the athlete's focus from skill development and enjoyment toward fear of failure or punishment. However, the partial nature of the mediation indicates that abusive coaching also exerts a direct negative effect on motivation beyond stress pathways, possibly by eroding trust, autonomy, and perceived competence, key components of self-determination theory (Deci & Ryan, 2000). Thus, while stress explains part of the mechanism, other psychological and relational factors are also involved.

Moreover, the mediating role of psychological stress highlights its critical position in shaping athletes' motivational outcomes in high-pressure environments. Elevated stress levels have been consistently linked with reduced motivation, burnout, and disengagement in sports contexts (Gustafsson, Hassmén, & Hassmén, 2011). Similarly, a longitudinal study reported that athletes with high levels of perceived stress experienced significantly greater levels of athlete burnout than those with low perceived stress levels (Gustafsson & Skoog, 2012). When athletes experience persistent stress due to abusive coaching, their coping resources may become depleted, leading to emotional exhaustion and diminished goal-directed behavior. At the same time, the partial mediation implies that some athletes may maintain motivation despite stress, possibly due to resilience, social support, or personal coping strategies (Fletcher & Sarkar, 2012). This underscores the importance of considering individual differences when interpreting the impact of coaching behavior. Overall, the findings emphasize that reducing abusive coaching practices and managing athletes' psychological stress are both essential for sustaining healthy motivation and long-term performance.

5. Practical Implication

The findings of the present study supported the hypothesis that abusive coach behavior has a significant effect on athletes' motivation via the mediating role of psychological stress among student-athletes at the university level in Khyber Pakhtunkhwa (KP). The study also reported that abusive coach behavior enhances psychological stress that directly declines extrinsic motivation and commitment of student-athletes to their sport's team. In respect to the past studies, abusive coach behavior like verbal abuse, bullying, and extreme criticism is linked with increased stress, exhaustion, and finally decreased performance and motivation among athletes in sports (Li et al., 2025; Zeng & Yin, 2025).

5.1 Implication for Department/University

In terms of implication at the university level, these results suggest that the athlete-centered model has to be followed rather than performance-centered approaches at the university level. There should be a proper and formal monitoring system at universities for sports teams that could measure, control, and evaluate such coaches' behaviors and their regular performance assessment of coaches, along with a secret feedback mechanism of student-athletes. Furthermore, integrating sports psychology services in sports may help in managing stress and maintaining motivation in sports among athletes.

Such findings are important because previous studies indicated that access to psychological support decreases stress, anxiety, and burnout and also enhances the capability to handle stress among athletes in sports (Gerber et al., 2024; Cho et al., 2019). Arrangement of a workshop on stress management, mental resilience, and providing access to a sports psychologist may help athletes to actively handle stress and maintain motivation in sports. Moreover, universities should implement continuous professional development programs for coaches focusing on athlete-centered approaches, emotional intelligence, and communication skills, as controlling coaching styles have been shown to increase psychological strain and reduce motivation (Gould, 2025).

5.2 Practical Implications for Policy Makers

The findings of the study suggest that policymakers should organize a comprehensive mechanism that could prevent and avoid abusive behavior of coaches in sports at the university level. Abusive coach behavior is a persistent means of psychological stress that could hinder mental health, participation, and motivation among athletes in sports. (Zeng & Yin, 2025). Policymakers, including sports authorities and higher education in Pakistan, should develop standardized codes of conduct for coaches, clearly defining unacceptable behaviors such as verbal abuse, humiliation, and excessive control, along with strict penalties for violations. Such policies would ensure accountability and create a safe sporting environment for student-athletes.

Moreover, policymakers should integrate the well-being of athletes and mental health frameworks into provincial as well as national sports policies. Previous studies revealed that abusive coaching behaviors not only enhance stress levels but also contribute to emotional exhaustion and result in amotivation among athletes (Li et al., 2025; Mellano et al., 2022). It is essential to make sure of the availability of coach education, psychological support services, and athlete protection programs at the university level for sports.

Awareness seminars, certification requirements of coaches, and regular assessment may further make sure sound implementation of such policies. Regular audits, certification requirements for coaches, and awareness campaigns can further ensure the effective implementation of these policies. Additionally, embedding mental health frameworks within university sports policies is essential, as psychological stress has been shown to mediate the relationship between coaching behavior and athlete outcomes (Mellano et al., 2022). The policymaker can foster a positive, sustainable, and motivating culture of sports at the university level by addressing both the psychological and behavioral dimensions of coaches in sports.

6. Limitations and Future Research Directions

Although this study has a significant contribution to sports coaching. Besides this, the current study has some limitations. The study has applied a cross-sectional research approach, which may limit the causal correlation among abusive coach behavior, athletes' motivation, and psychological stress. Longitudinal evidence suggests that the impact of coaching behaviors on psychological outcomes develops over time, highlighting the need for caution in causal interpretation (Gerber et al., 2024). Second, the study utilized a quantitative approach, relying on self-reported data collected through structured questionnaires. It may be subject to response bias, including social desirability and common method variance. Athletes may underreport abusive experiences due to fear of consequences. Such limitations are common in behavioral research and may influence the accuracy of the findings (Podsakoff et al., 2003). Third, the sample of the study was limited to only university-level student-athletes in KP, which may restrict the generalizability of the results to other populations such as school-level athletes, professional players, or athletes from other provinces. Coaching practices and athlete experiences may vary across levels of competition and socio-cultural environments, which may affect the perceived relationships (Mellano et al., 2022).

As the current study contributes significantly to understanding the relationship between abusive coach behavior, psychological stress, and athlete motivation, several paths are suggested for future research work. First, future studies should consider longitudinal research designs to examine causal relationships and track changes in athletes' motivation and stress over time. Second, researchers are encouraged to explore additional mediating and moderating variables, such as social support, resilience, emotional intelligence, and coping strategies, which may influence the relationship between coaching behavior and athletes' motivation. Previous studies indicate that individual and environmental factors can buffer or strengthen the effects of stress on motivation (Gerber et al., 2024). Third, future research should expand the scope beyond Khyber Pakhtunkhwa to include other provinces of Pakistan, allowing for comparative analysis across cultural and institutional contexts. Finally, qualitative approaches such as interviews and case studies are recommended to gain in-depth insights into athletes lived experiences of abusive coaching behaviors.

Data availability

The author will disclose the data that supported the study's current findings without unnecessary hesitation.

Ethics statement

The study involved the participants, who were approved by the review committee of the sports sciences & physical education department of International Riphah International University, Faisalabad, Pakistan. Before the survey, a proper approval letter from the concerned authorities of universities and a consent letter from the participants were obtained.

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