



# Development Process of Fencing Sport in Türkiye and Factors Affecting Success

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## Abstract

The purpose of this research is to measure and interpret the opinions of the coaches who actively participate in competitions in our country and who have a Turkish Fencing Federation 2020 visa, on the Development Process of Fencing Sport in Turkey and the Factors Affecting Success. Research group; In 2020, there are 74 coaches in the Turkish Fencing Federation 2020 visa coach list. An online data collection form was used as a data collection tool in this study, which was structured through the qualitative research method. The survey form, which was drawn up by the researcher by taking expert opinion, consisting of a total of seven questions, and devised to learn the opinions of the participants on the subject matter of the study, includes multiple-choice and open-ended question types. In this study conducted in collaboration with the Turkish Fencing Federation, the respondents answered the questionnaire online via the website of the respective federation and took part in the study voluntarily. Consent regarding the study was presented in the "Remarks" section of the form to the participants for approval. In the analysis process of the data obtained, the data analysis program called MAXQDA Analytics Pro 2024 was used. While closed-ended questions were summarized by indicating percentages, the content analysis method was used in the process of analyzing open-ended question and answer reports. For this study, an approval was received from the Ethics Committee for Non-Invasive Clinical Research of the School of Sport Sciences of Selçuk University. As a result of the research; The factors affecting the development of fencing sport were tried to be determined. In this context, subcodes such as correct planning of athletes' psychological preparation processes, implementation of coach training programs, determination of training programs according to the level of the athlete, correct determination of national targets and programs and sharing them with the relevant parties, inadequate financial situation of athletes or families, athletes' anxiety disorders and failure to cope with stress, intensity of academic exams and academic education process, and referee mistakes and their effects have been classified. The data obtained were visualized with the help of frequency tables and code maps. Finally, some of the opinions of the participants, which were coded, were directly conveyed by interpreting the findings obtained through the tables and code maps.

**Keywords:** Fencing, Coach, Sportive Success

## Özet

### Türkiye'de Eskrim Sporunun Gelişim Süreci ve Başarıya Etki Eden Faktörler

Bu araştırmanın amacı, ülkemizde faal olarak yarışmalara katılan ve Türkiye Eskrim Federasyonu 2020 yılı vizeli antrenörlerinin, Türkiye'de Eskrim Sporunun Gelişim Süreci ve Başarıya Etki Eden Faktörler hususlarda görüşlerini ölçmek ve yorumlamaktır. Araştırma grubunu; 2020 yılında Türkiye Eskrim Federasyonu 2020 yılı vizeli antrenör listesinde yer alan 74 antrenör oluşturmaktadır. Nitel araştırma metoduyla kurgulanan bu çalışmada; veri toplama aracı olarak online veri toplama formu kullanılmıştır. Araştırmacı tarafından uzman görüşü alınarak hazırlanmış, toplam 7 sorudan oluşan ve katılımcıların, araştırma amacına yönelik görüşlerini öğrenmek amacıyla kurgulanan soru formu çoktan seçmeli ve açık uçlu soru tiplerini içermektedir. Türkiye Eskrim Federasyonu ile ortak hareket edilerek gerçekleştirilen bu çalışmada, katılımcılar ilgili federasyonun web sitesi aracılığıyla online ortamda soru formunu cevaplamış olup, çalışmaya gönüllü olarak katılmışlardır. Araştırma ile ilgili onam, formun açıklama kısmında katılımcıların onayına sunulmuştur. Elde edilen verilerin analiz sürecinde ise MAXQDA Analyctis Pro 2024 isimli veri analiz programı kullanılmıştır. Kapalı uçlu sorular yüzde verilerek özetlenirken, açık uçlu soru cevap raporlarını analiz etme sürecinde içerik analizi metodu kullanılmıştır. Bu araştırma için Selçuk Üniversitesi Spor Bilimleri Fakültesi Girişimsel Olmayan Klinik Araştırmalar Etik Kurulundan onay alınmıştır. Araştırma sonucunda; eskrim sporunun gelişimine etki eden faktörler tespit edilmeye çalışılmıştır. Bu kapsamda; sporcuların psikolojik hazırlık süreçlerinin doğru planlanması, antrenör eğitim programlarının gerçekleştirilmesi, antrenman programlarının sporcunun seviyesine göre belirlenmesi, ulusal hedef ve programın doğru belirlenmesi ve ilgililerle paylaşılması, sporcuların veya ailelerin maddi durum seviyesinin yetersiz olması, sporcuların kaygı bozuklukları ve stresle başa çıkma başarısızlıkları, akademik sınavların yoğunluğu ve akademik eğitim süreci ve hakem hataları ve etkileri gibi alt kodlar tasnif edilmiştir. Elde edilen veriler, frekans tabloları ve kod haritaları yardımıyla görselleştirilmiştir. Nihai olarak tablo ve kod haritaları ile elde edilen bulgular yorumlanarak, katılımcıların kodlama yapılan bazı görüşleri doğrudan aktarılmıştır.

**Anahtar Kelimeler:** Eskrim, Antrenör, Sportif Başarı

## INTRODUCTION

Success is a concept that needs to be prepared for in terms of physical, technical, tactical, and psychological factors, which are inherent to human nature. These factors, which athletes and coaches must focus on in their training to achieve success, are the most crucial elements in achieving athletic success. However, success is not solely dependent on these factors; it also varies based on the athletes' and coaches' beliefs, motivation, and willpower. These factors are generally effective tools in achieving results across all sports. Additionally, each sport has specific techniques that are unique to it. In fencing, to become an elite athlete, factors such as speed, strength, skill, flexibility, endurance, distance perception, and reaction time are required. When combined with the specific techniques of the fencing discipline, all these factors form the necessary elements for success (11). In fencing, the primary focus is to eliminate the opponent's attack, create pressure during the attack, and counterattack. These all contribute to the development of mental focus, reflexes, and strategic thinking abilities in athletes (18). Due to the unique techniques of fencing, both athletes and coaches must continuously develop themselves in this area. Furthermore, the high level of competition in matches plays a significant role in ensuring fair outcomes. Therefore, many factors play a crucial role in achieving success (4).

The quality of the relationship between coaches and athletes also reflects on the outcomes of competitions. Mageau and Vallerand (9) found that a good coach-athlete relationship increases motivation in athletes. For coaches, the most important factor in achieving their goals is establishing a good relationship with their athletes. The more time coaches spend with their athletes, the more aware they become of their athletes' needs. The quality of the coach-athlete relationship is essential for achieving success. The coach's primary duty is to support the athlete physically and psychologically, analyze the performance level that can be obtained from the athlete, and apply the necessary training program at regular intervals (14). Therefore, coaches must first strengthen their relationships with athletes to achieve success. Tolukan and Akyel (15) emphasize that the relationship between coaches and athletes is crucial for performance and psychological resilience in athletes.

In light of all the data obtained, it can be concluded that one of the most important factors affecting coaches' success is their relationship with their athletes. However, this situation is generally the same across all sports. Still, there can be specific differences in each sport. Indeed, our research focuses on the factors influencing success among coaches in the context of fencing. Therefore, the purpose of this study is to investigate the development of fencing in Turkey and the factors affecting success in this sport. This research is expected to make a unique contribution to the literature.

## METHOD

The descriptive content analysis method refers to the in-depth examination and organization of qualitative and quantitative studies conducted independently of each other in a particular subject or field. In this way, general trends in that subject or field are identified. The results obtained in this method are expected to guide future studies on targeted topics (16). The analysis method designed in this study is content analysis. In addition, a case study design was used in the research. The opinions of the coaches participating in the research, regarding the positive and negative factors affecting the development process of fencing sport, were tried to be classified with the help of code maps (Figure 1-2). In addition to these opinions, demographic information of the coaches such as gender, education level, coach license level, length of experience and the number of athletes they work with are also included in the findings section.

### Study Groups

The study group consists of 74 coaches who are on the 2020-2021 season visa list of the Turkish Fencing Federation and are actively working. While 68.9% (n=51) of the referees participating in the study were male coaches, 31.1% (n=23) were female participants.

### Data Collection Tools

An online data collection form was used as a data collection tool in this study, which was structured through the qualitative research method. The survey form, which was drawn up by the researcher by taking expert opinion, consisting of a total of seven questions, and devised to learn the opinions of the participants on the subject matter of the study, includes multiple-choice and open-ended question types. In this study conducted in collaboration with the Turkish Fencing Federation, the respondents answered the questionnaire online via the website of the respective federation and took part in the study voluntarily. Consent regarding the study was presented in the "Remarks" section of the form to the participants for approval.

### Research Design

In the analysis process of the data obtained, the data analysis program called MAXQDA Analytics Pro 2024 (Professional Data Analysis Software for Qualitative and Mixed Methods) was used. While closed-ended questions were summarized by indicating percentages, the content analysis method was used in the process of analyzing open-ended question and answer reports. The data obtained were visualized with the help of frequency tables and code maps. Finally, some of the opinions of the participants, which were coded, were directly conveyed by interpreting the findings obtained through the tables and code maps.

In the research, six closed-ended questions were asked to the participants, and the frequency tables created with the answers to the relevant questions are included in the findings section.

Within the scope of the research, one open-ended question was asked to the participants. The answers to the question "What are the negative and positive factors affecting performance in fencing in Türkiye?" were classified with the help of codes and subcodes using the content analysis method.

### Ethical Approval and Institutional Permission

For this study, an approval was received from the Ethics Committee for Non-Invasive Clinical Research of the Faculty of Sport Sciences of Selcuk University. (E-40990478-050.99-51591) In addition, permission was obtained from the Turkish Fencing Federation for the study.

## FINDINGS

The demographic information of the coaches participating in the research is as follows.

**Table 1.** Gender status of the coach participating in the research

		f	%
Gender	Female	23	31,1
	Male	51	68,9
	Total	74	100

**Table 2.** Educational status of the coach participating in the research

		f	%
Educational Status	High School and Equivalent	13	17,6
	Associate Degree	3	4,1
	Bachelor Undergraduate	49	66,2
	Graduate	9	12,2
	Total	74	100,0

**Table 3.** License status of the coach participating in the research

		f	%
What is the degree of your coach license?	Level 1	20	27,0
	Level 2	39	52,7
	Level 3	14	18,9
	Level 4	1	1,4
	Total	74	100,0

**Table 4.** Experience duration of the coach participating in the research

		f	%
Experience duration	1-3 Years	17	23,0
	5-6 Years	16	21,6
	7-10 Years	13	17,6
	11 Years and Over	24	32,4
	Inactive referee	4	5,4
	Total	74	100,0

**Table 5.** Number of athletes actively coached by the trainer participating in the research

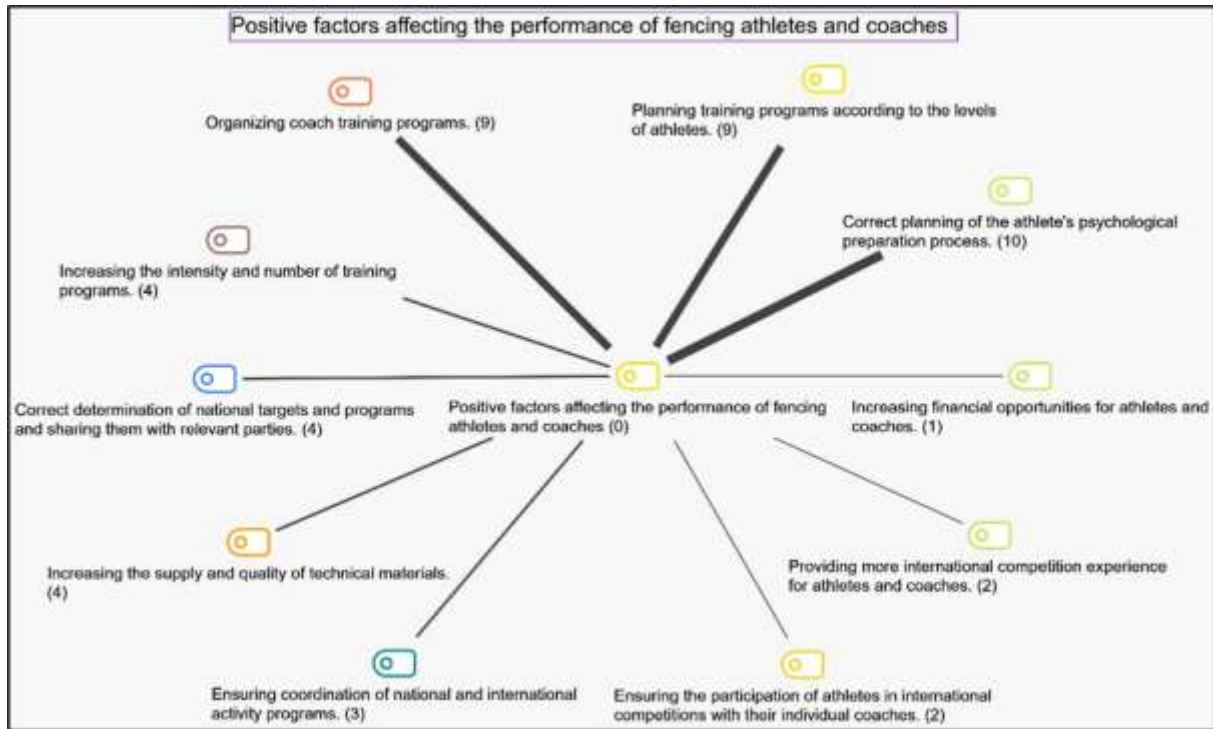
		f	%
Number of athletes	1-10	17	23,0
	11-20	14	18,9
	21 and over	43	58,1
	Total	74	100,0

**Table 6.** Number of athletes ranked in the top 3 in national competitions in the last 5 years

		f	%
Number of athletes ranked in the top 3 in national competitions in the last 5 years	Yes	53	71,6
	No	21	28,4
	Total	74	100,0

Of the coaches participating in the study, 68.9% (N=51) are male participants. According to their education level, the majority of the participants are undergraduate graduates. It is seen that 52% (N=39) of the coaches participating in the study have a Level 2 coaching certificate. 32.4% (N=24) of the coaches

have 11 years and above experience, and 43 coaches continue to work with 21 or more athletes. In addition, it was determined that the athletes that 71.6% (N=53) of the coaches continue to work with are the athletes who have ranked in the top 3 in the national competitions held in the last 5 years.



**Figure 1. Positive factors affecting the performance of fencing athletes and coaches code-subcode map.**

The code map of the views of the coaches participating in the study that positively affect performance is as above. In this context, there are 48 statements categorized under 10 different subcodes.

1. Correct planning of the athlete's psychological preparation process.
2. Organizing coach training programs.
3. Planning training programs according to the levels of athletes.
4. Increasing the intensity and number of training programs.
5. Correct determination of national targets and programs and sharing them with relevant parties.
6. Increasing the supply and quality of technical materials.
7. Ensuring coordination of national and international activity programs.
8. Providing more international competition experience for athletes and coaches.
9. Ensuring the participation of athletes in international competitions with their individual coaches.
10. Increasing financial opportunities for athletes and coaches.

Some examples of the opinions of the coaches participating in the research, the opinions that make up the code map, are classified as follows.

Participant C4: *“The coach’s planning and correct implementation of training according to the athletes’ conditions positively affects performance.”*

Participant C54: *“I believe that training programs prepared according to individual differences are much more efficient.”*

Participant C33: *“Giving importance to coach development will be important in terms of training athletes.”*

Participant C37: *“Conducting seminars positively affects performance.”*

Participant C53: *“For longer term and more systematic success; trainers, i.e. educators, need to be trained.”*

Participant C53: *“To equip existing coaches with more elite skills, while to further qualify new coaches with more intermediate level coaches and/or similar programs.”*

Participant C30: *“I believe that athletic concentration skills and disciplined and programmed work will positively affect performance.”*

Participant C47: *“The athlete must be mentally prepared for the tournament.”*

Participant C58: *“Practices to reduce stress levels.”*

Participant C10: *“I think it will be positive if the athletes selected for the national team at least attend the camps with their own coaches before the competition.”*

Participant C27: *“It is very important for the motivation of the athletes to send their own coaches as officials in international competitions.”*

Participant C23: *“Preparation of the national program within the international program.”*

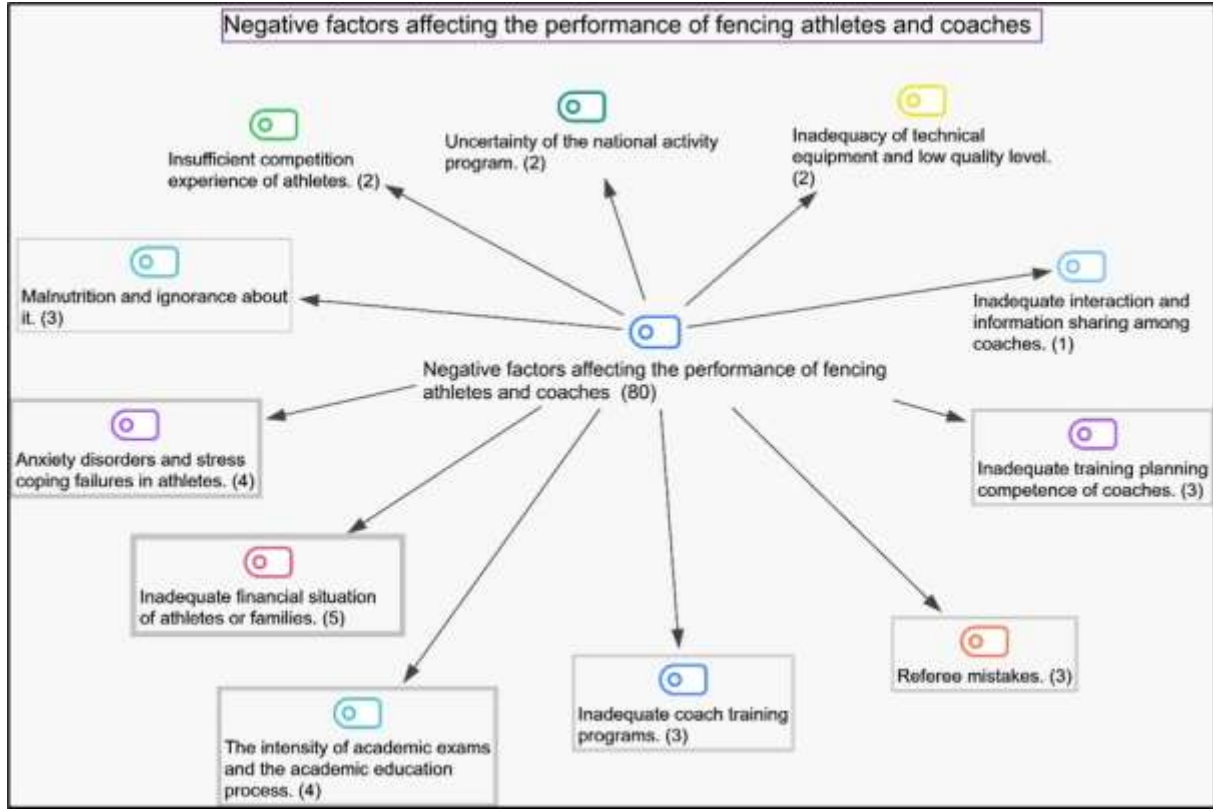
Participant C23: *“Determining international goals and competitions for branches and sharing the goals with branch coaches will have a positive impact.”*

Participant C53: *“Category-Specific Programming (For example, what is the program of the foil in the international arena, who is authorized, who is responsible, what are its goals, etc.).”*

Participant C27: *“The quality of the materials used is important for the competitions to be completed on time without any disruption..”*

Participant C74: *“In small settlements, public support for technical equipment is necessary.”*

Participant C39: "Our current system that I will write for the foil branch is sufficient for technical tactics and conditioning, but considering that 70% of fencing is match and experience, our request from the federation is to organize organizations that provide plenty of match opportunities abroad in the foil and epee branches."



**Figure 2. Negative factors affecting the performance of fencing athletes and coaches code-subcode map.**

The code map of the views of the coaches participating in the study that negatively affect performance is as follows. In this context, there are 32 statements categorized under 11 different subcodes.

1. Insufficient competition experience of athletes.
2. Uncertainty of the national activity program.
3. Inadequacy of technical equipment and low quality level.
4. Malnutrition and ignorance about it.
5. Inadequate interaction and information sharing among coaches.
6. Anxiety disorders and stress coping failures in athletes.
7. Inadequate financial situation of athletes or families.
8. The intensity of academic exams and the academic education process.
9. Inadequate coach training programs.
10. Referee mistakes.
11. Inadequate training planning competence of coaches.

Some examples of the views of the coaches participating in the study, the views that make up the code map are classified as follows.

Participant C74: *"Families in our region cannot provide sufficient economic support."*

Participant C44: *"Sports are becoming more expensive day by day."*

Participant C6: *"Lack of interaction, communication and personal development among coaches and institutional training to support these."*

Participant C21: *"lack of personal development and institutional training to support them."*

Participant C7: *"Uncertainty of the activity calendar."*

Participant C49: *"The fact that a camp environment where elite athletes in the epee branch can train together outside of this year has not been provided until this year."*

Participant C27: *"The quality of the materials purchased and sent through tender is also inadequate and they become deformed in a short time."*

Participant C30: *"Nowadays, especially with the influence of family, anxiety disorders and stress, the biggest problem of our time is concentration."*

Participant C64: *"Athletes not showing the necessary interest due to the emphasis on academic education."*

Participant C63: *"I think it is a big deficiency that they think they cannot manage sports and school at the same time and that they have no future in sports.."*

Participant C71: *"What is it that some referees can exhibit negative behaviors towards athletes? When this happens during a match, it negatively affects the athletes' performance during the match."*

Participant C73: *"Referee decision errors and their negative consequences.."*

## DISCUSSION AND CONCLUSION

When examining the research findings, several prominent themes emerged regarding the coaches' opinions on the negative factors affecting performance. These include: athletes' lack of competitive experience, the uncertainty of the national activity calendar, inadequacy and low quality of technical equipment, insufficient nutrition and lack of knowledge, lack of interaction and information sharing among coaches, anxiety disorders and failure to cope with stress among athletes, insufficient financial resources of athletes or their families, the intensity of academic life and the academic process, inadequacy of coach education programs, referee errors, and insufficient knowledge of training periodization among coaches.

In their study, Kalkan and Zekioğlu (7) stated that among the factors influencing training motivation, inadequate training facilities directly affected athletes' motivation and were perceived as influencing performance. Furthermore, deficiencies in training methods and the absence of pre-training preparations were also identified as factors impacting success. The study also pointed out that athletes' mental factors—particularly their levels of concentration and attention—could have a direct impact on performance. In this context, it can be stated that the findings of the current study are consistent with those of previous research. Pensgaard (12) emphasized that anxiety is one of the major problems among athletes and that early engagement in sports, combined with proper coach education, could reduce this issue. Similarly, our study suggests that anxiety disorders and failure to manage stress—identified as negative performance factors in fencing—could be mitigated through comprehensive and well-structured coach education programs.



Another prominent finding was communication deficiencies, which were cited as critical shortcomings. These could be addressed by organizing joint training camps or work groups to facilitate interaction among coaches. Burton and Readeke (2) emphasized that effective communication contributes significantly to coaching success.

Onağ et al. (10) found that coaches' technical knowledge significantly contributes to athletic success. Consistent with this, many studies have highlighted the inadequacy of coaching education and seminar programs and stressed the need for up-to-date training to enhance coaches' technical knowledge and competencies.

In their study on the financial structures and revenue sources of sports clubs, Wicker and Breuer (17) underlined the influence of social welfare levels and environmental factors. In line with this, our research findings—shaped by participant coaches' feedback—suggest that the insufficient financial means of fencers or their families are among the negative factors affecting performance.

Hanton et al. (3), in their study evaluating athletes' competitive experience and performance, observed that such experience has a positive effect on performance. The lack of competitive experience, which participant coaches cited as a negative factor, aligns with this finding. Increasing the national and international competition exposure of elite athletes could contribute positively to performance.

In their 2023 study on student-athletes, Koçak et al. (8) found that elite athletes often face challenges in dual career planning due to competing demands between academic and sporting responsibilities. Coaches in our study also cited academic transition exams and the intensity of academic curriculum as negative factors influencing performance. This dual-career dilemma, common among athletes in our country, underscores the growing need for structured support. Recent agreements with higher education institutions and scholarship opportunities are significant steps toward resolving this issue.

Burke et al. (1) examined basketball referees' anxiety levels before, during, and after games. They emphasized that decision-making under pressure contributes to referee anxiety. Given that fencing is a sport characterized by rapid decision-making, potential referee errors are inevitable. To minimize such errors, referee education seminars and experience-building activities should be prioritized.

Regarding positive factors, participant coaches identified several key themes that enhance performance and success in fencing: proper planning of athletes' psychological preparation processes, structured coach education programs, training plans tailored to athlete levels, increased training frequency and intensity, clearly defined and communicated national goals and programs, enhanced quality and provision of technical equipment, coordination of national and international activity calendars, greater exposure to international competitions for athletes and coaches, support for participation in competitions alongside personal coaches, and improved financial support for both athletes and coaches.

Sherwin et al. (13) emphasized the importance of coaching experience in their study on the relationship between coaches' educational and athletic backgrounds and success. Jia et al. (5) also noted that coaches' ability to apply knowledge in practice and their drive for success were key predictors of coaching effectiveness. Additionally, coaches' suggestions for improving the quality and availability of technical equipment were also reflected in the findings. In a study examining football coaches' perspectives, factors such as technical staff and facilities were listed among the performance-enhancing components (10). These findings suggest that improving such conditions can directly influence both motivation and success. Furthermore, Kalkan and Zekioğlu (7)'s emphasis on training methods aligns with our findings related to training variety and individualized planning based on athlete levels.

Kajnta and Baric (6), in their study involving coaches, reported that those who maintained close and empathetic relationships with athletes—recognizing their emotions and needs—were more likely to coach successful athletes. This is echoed in our findings that emphasize the need for more international competition experience and participation alongside personal coaches, which may help strengthen these interpersonal dynamics.

In conclusion, the positive and negative factors affecting performance in fencing, as identified by coaches, align with findings from studies conducted with coaches from various disciplines. To address these factors, measures should be taken including the development of coach education programs, enhancement of coach-athlete relationships, increasing athletes' competition experience to reduce anxiety, and ensuring sufficient technical equipment and facilities are available.

### Limitations and Recommendations:

This study evaluated the perspectives of coaches working in the sport of fencing. Following the evaluation, a report on the factors positively and negatively influencing the success of fencing coaches was prepared and shared with relevant federation officials, with the aim of contributing positively to the development process.

The sample group of this study consisted of 74 coaches listed in the 2020 official registry of the Turkish Fencing Federation. A research model including participants from different countries could further strengthen the study's findings and generalizability.

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