

ARMENIAN ADULT MALE ARTISTIC GYMNASTS SPORT CAREER TERMINATION REASONS

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Original article

DOI: 10.52165/sgj.16.2.255-265

Abstract

The information about the reasons for sports career (SC) termination among athletes is of significant importance, as it provides a theoretical foundation to prevent early withdrawal. A sociological survey was conducted among 76 former male artistic gymnasts who have ended their careers to determine the causes of SC termination. As a result, 11 different reasons for SC termination were identified. The most frequent reasons include sports injuries (35.52%), mandatory military service (31.57%), and employment (25.0%). The least mentioned reasons are coach-related issues (5.26%), health problems (2.63%), and age (2.63%). The survey offers a broader understanding of why Armenian athletes terminate their sports careers. This insight will enable the governing bodies of Armenian gymnastics and sports to provide targeted assistance to adult artistic gymnasts, helping to prevent early withdrawal in the future.

Keywords: *sports career, termination, reasons, artistic gymnast.*

INTRODUCTION

Each person's career is an indicator of their success in life since every individual reaches a certain status through professional development (Rykova & Pokatov, 2020). In trying to achieve success in any sphere of human activity, including sports, one faces numerous challenges and hardships that can hamper desired progress or cause its termination altogether. A sports career involves years of sports activity characterized by regular and constant self-development in one or several sports, aimed at high achievements (Stambulova, 1997). Numerous studies have been conducted among female and male athletes in various countries in recent decades to uncover the actual reasons for terminating their sports

careers (Lavalley et al., 1997; Kerr & Dacyshyn, 2000; Stambulova et al., 2007; Moesch et al., 2012; Carapinheira et al., 2018, etc.). Interestingly, current research reveals certain differences among studies conducted in different countries. For instance, according to Moesch et al. (2012), the lack of motivation and injuries top the list of reasons for sports withdrawal among Danish athletes. The study results of Dergach & Ryabinina (2011) demonstrate that 18–21-year-old Russian athletes withdraw from sports mainly because of a lack of motivation and financial instability, whereas the leading reasons for sports withdrawal among 22–25-year-old athletes are financial instability and non-sport-

related professional issues. These differences may be explained by the social and economic characteristics of the respective countries, as well as the level of popularity of certain sports or other factors. As is known, a low level of popularity of a certain sport in a given city or country can cause withdrawal (Dergach & Zavyalova, 2013; Swan et al., 2022).

Moreover, the athletes involved in a series of studies (Dergach & Ryabinina, 2011; Moesch et al., 2012; Dergach & Zavyalova, 2013) represent both team and individual sports. Therefore, the results tend to be relatively general and do not provide accurate information about the specific reasons for the termination of the sports careers (SC) of athletes in certain sports, including artistic gymnasts. Research by López de Subijana et al. (2020) reveals significant differences in sports careers between individual and team sports. Theoretically, this fact can impact the reasons for SC termination.

Thus, the analysis of sports literature suggests that there may be differences in the reasons limiting the SC of Armenian adult artistic gymnasts as well. The current research aims to reveal the reasons for the termination of the SC of Armenian adult male artistic gymnasts, as well as the age range of career termination.

METHODS

The survey was conducted with 76 former gymnasts. The participants were selected based on three criteria: they had to have started their training from the preliminary preparation stage, retired from sports at the age of 18 or later, and ended their sports careers (SC) in the past 10 years. In Armenia, the first stage of multi-year training is called preliminary preparation.

From then on, children embark on their first training sessions. Typically, this stage starts at the age of 6 to 7, or sometimes even earlier (Khizantsyan & Seloumyan, 2016, p. 45).

Information and contact data about the participants were obtained from the Gymnastics Federation of Armenia. The survey was conducted in various gymnastics schools in Armenia (among coaches), the Armenian State Institute of Physical Culture and Sport (among students), as well as among former gymnasts currently engaged in activities other than sports. Former artistic gymnasts presently study and work in the institutions mentioned above. The questionnaire was individually presented to each participant in the study. The present research adopts a cross-sectional, retrospective design.

The sociological survey was carried out using a carefully developed questionnaire, which helped reveal the biographical data of the participants, the age at which they started and finished training, and the overall duration of their sports careers. An open-ended question was asked to find out the reasons for SC termination. In the open-ended question, the former athletes had to list the reason(s) for ending their sports careers. A qualitative content analysis of the reasons mentioned by the athletes was conducted. The reasons were carefully read and re-read, and subsequently grouped into categories with similar content. The statistical data were analyzed using the SPSS program with methodological standards of sports metrology (Zaciorski, 1982).

RESULTS

The study of the biographical data of the survey participants revealed that all of them had been champions and winners of various competitions among Armenian young and adult gymnasts. Additionally, 13.2% of them had won medals in various international gymnastics competitions. According to the biographical data of the survey subjects, at the time of ending their sports careers (SC), 7.89% were masters of sports of international class, 18.42% were masters of sports, 38.15% were candidates for master of sports, and 35.52% were gymnasts of the first adult category (first-class athletes). This classification of gymnast status is defined and awarded by the RA Ministry of Education, Science, Culture and Sports, and

the Gymnastics Federation of Armenia (RA Government decision No. 587 of May 4, 2006).

Eleven reasons for the sports career (SC) termination of Armenian gymnasts have been identified. The leading reasons mentioned by athletes are sports injuries (35.52%), mandatory military service (31.57%), and employment (25.0%). These are followed by financial reasons (inadequate financial assistance or lack of it) (18.42%), lack of success (17.10%), lack of motivation (15.78%), family-related reasons (14.47%), and improper state of infrastructure and sports equipment (10.52%). The least mentioned reasons are coach-related issues (5.26%), health problems (2.63%), and age (2.63%) (Table 1).

Table 1

Armenian adult artistic gymnasts SC termination reasons (N=76)

<i>N</i>	Reasons	n	%
1	Sports injuries	27	35.52
2	Mandatory military service	24	31.57
3	Employment	19	25.0
4	Inadequate financial assistance or lack of it	14	18.42
5	Lack of success	13	17.10
6	Lack of motivation	12	15.78
7	Family-related reasons	11	14.47
8	Improper state of infrastructures and sports equipment	8	10.52
9	Coach-related reasons	4	5.26
10	Health problems	2	2.63
11	Age	2	2.63

The investigation of the age index of the athletes (the arithmetic means, standard deviations) revealed the following indicators: starting age of training 6.51 ± 1.41 , training termination age 21.06 ± 3.28 , and SC duration 14.55 ± 2.97 . According to the Kolmogorov-Smirnov Test of Normality, the statistical data for SC

duration (sample) do not match the law of normal distribution ($p < 0.05$). The same applies to the age indicators of sports termination ($p < 0.05$). Of the survey participants, 88.16% finished their SC between the ages of 18 and 24, and 11.84% finished between the ages of 25 and 31

DISCUSSION

It's no secret that athletes often sustain various injuries during training and competitions (Lebedikhina, 2017; Thomas & Thomas, 2019). Sports injuries occur during athletic activities or exercise and can result from accidents, poor training techniques, inadequate equipment, or overuse of a particular body part (Elmagd, 2016). It's worth noting that artistic gymnastics is not considered one of the most injury-prone sports. Compared to others, its injury rate is considered average (Lebedikhina, 2017, p. 54). However, sports injuries remain a leading cause of sports career (SC) termination not only in artistic gymnastics but also in other sports (Ristolainen et al., 2012; Dergach & Zavyalova, 2013).

Studying cases across 16 different sports, Moesch et al. (2012) revealed that sports injuries are the main reason for SC termination among elite athletes. Enoksen (2011) concluded that injuries are the major reason for young Norwegian track and field athletes to leave the sport. Although sports injuries are considered an inherent risk of sports participation, experts have developed special methods to significantly reduce the likelihood of injuries if applied correctly (Aghajanyan, 2015). Currently, many coach activities contain methodological mistakes that contribute to sports injuries. It's estimated that 30-60% of injuries are caused by improper training methods and mistakes (Aghajanyan, 2015, pp. 435-437). Therefore, the role of the coach in preventing potential injuries cannot be overstated, along with the importance of sports doctors and rehabilitators. Rehabilitation after a sports injury is crucial for ensuring full recovery, minimizing time off from sports, and preventing reinjury (Dhillon et al., 2017).

Another major reason for sports career (SC) termination is mandatory military service. Armenian legislation mandates that all male citizens aged 18 must enlist for a 24-month military service (RA Law on Military Service and the Status of the Serviceman, Law No. HO-195-N of 15 November 2017). Withdrawal from training during this period significantly disrupts the principle of training continuity, considered one of the fundamental principles in sports preparation (Platonov, 2004, pp. 291-292). It's well known that breaks in training lead to de-adaptation processes in the body (Platonov, 2004, p. 145). Consequently, an athlete's sports results achieved after years of dedicated training can be dramatically affected due to insufficient training (Platonov, 2004, p. 148). Artistic gymnasts often struggle to regain their previous physical fitness due to lack of exercise, leading them to drop out of the sport. Responses from survey participants confirm this notion, with statements like "I was out of shape" and "I struggled to regain my previous physical fitness, but couldn't" being common. Others noted a lack of motivation to exercise after completing their military service. Therefore, it's evident that military service affects athletes' performance both physically and psychologically.

The third most mentioned reason for sports career (SC) termination is starting work (employment). On one hand, work provides an opportunity to earn money and begin a career. The need to earn money can become a decisive factor when athletes face financial problems. A study conducted by Dergach & Ryabinina (2011) reveals that 18.4% of athletes aged 22-25 give up sports due to financial instability. It's known that work can be balanced with training, and employment shouldn't always be seen as a reason to leave sports. However, unlike

individual sports, athletes in team sports often manage to combine training and work more effectively. According to a study by López de Subijana et al. (2020), team sports athletes typically reach their peak performance later than individual athletes, enjoy longer athletic careers, and more frequently balance their sport with work compared to athletes in individual sports.

The lack of financial assistance can lead athletes to give up sports, not only for artistic gymnasts but also for athletes engaged in other sports (Dergach & Zavyalova, 2013). The need for financial support or the opportunity to earn money through sports becomes more evident during adulthood. While the primary motivation for engaging in sports among athletes aged 16-18 is often emotional — such as socializing and traveling to various countries — after the age of 18, motives change significantly. At this stage, the primary motives for participating in sports are aspirations for sporting achievements and financial gain (Dergach & Zavyalova, 2013).

According to resolutions of the Government of the Republic of Armenia, only the top 10 athletes in the country receive financial awards each year (RA Government Resolution No. 187, February 20, 2020). Additionally, athletes who achieve significant success at international tournaments may receive financial support under certain government decisions (RA Government decision, December 15, 2022). Consequently, gymnasts who are talented and dedicated but have not yet achieved high-level results do not receive monetary or other support. In case of injuries or other training-related problems, gymnasts often have to overcome difficulties on their own.

Another reason for the sports career (SC) termination of artistic gymnasts is the lack of success. After years of training,

athletes may feel unable to further develop their sports achievements or improve their abilities and skills. Consequently, their sports results may plateau or even regress, which can demotivate them from continuing their training. Sports achievements are influenced by various factors, which can be classified into three groups: individual factors (first group), scientific-technical progress (second group), and social-economic factors (third group) (Kholodov & Kuznetsov, 2003, pp. 327-333).

The factors in the first group pertain to the personal traits of the athlete, including innate gifts, abilities, and level of preparation. Factors in the second group are influenced by the effectiveness of the sports preparation system, encompassing modern training methods, a rational system of training, and technical, scientific, medical, and biological factors contributing to athlete preparation. The third group reflects the state of the sport in the country, the quality of specialists involved, and the general social and economic conditions affecting sports (Kholodov & Kuznetsov, 2003, p. 328).

While each of these factors is important, the gifts and talent of the athlete play a crucial role in their sports achievements. Sports genetics specialists assert that, similar to other human endeavors, an athlete's success is predominantly influenced by their genotype, accounting for 75-80% of their success, with other factors such as upbringing, teaching, training, and environment contributing 15-20% (Mosse, 2012).

Research conducted among former Russian athletes aged 17-23 reveals that the lack of success (the cessation or decline in performance growth) is the second main reason (31.25%) for quitting sports (Ivanova, 2019).

Some artistic gymnasts terminate their sports careers due to a lack of motivation, a reason acknowledged in numerous studies. For example, Moesch et al. (2012) found that responses indicating a lack of motivation as the main reason for withdrawing from sports totaled 26.5%, while Dergach & Zavyalova (2013) reported a figure of 12.5%. The lack of sports motivation may stem from inadequate motivation formation during sports preparation, which is considered one aspect of athletes' psychological preparation (Platonov, 2004). The coach's skills and knowledge play a crucial role in this regard.

Sports motivation is influenced by internal and external factors that change at different stages of an athlete's career (Ilin, 2002, p. 288). Babushkin (2014) suggests that inadequate recovery of stamina after training or competitions is one reason for the decline in sports motivation among elite athletes. This not only negatively affects athletes' psychological and emotional states but also their planned sports achievements and overall desire to engage in sports. To boost sports motivation, psycho-regulative training and rehabilitation massage are recommended (Babushkin, 2014).

Sports motivation has been extensively researched (Cratty, 1978; Munkácsi et al., 2012; Nunomura et al., 2012; Ilin, 2002; Babushkin, 2014), providing a better understanding of athletes' motivation-related issues.

Responses such as family issues, negative family attitudes toward their training, marriage, or moving to another country are categorized as family-related reasons, as recorded in the research by Moesch et al. (2012) and Dergach & Zavyalova (2013). Interestingly, female athletes tend to give up sports due to family-related issues more frequently than male athletes (Moesch et al., 2012).

Responses indicating "inadequate equipment in training halls," "inadequate and outdated equipment," or "insufficient levels of rehabilitation and hygiene resources" are considered reasons connected with the inadequate state of infrastructure and equipment. It's known that outdated or insufficient sports equipment negatively affects training quality, while high-quality equipment contributes positively to training efficiency (Kholodov & Kuznetsov, 2003, p. 330). Additionally, the role of infrastructure and sports equipment in injury prevention cannot be overstated (Aghajanyan, 2015, pp. 435-437).

Changes in coaches, their withdrawal from sports, or their relocation to another country, as well as deteriorating relations with athletes, can be factors limiting or terminating athletes' sports careers. However, based on the data, coach-related reasons are not primary factors for sports career (SC) termination among adult gymnasts. Generally, adult and elite athletes rarely end their sports careers due to coach-related issues, as indicated by various studies (Dergach & Zavyalova, 2013; Ivanova, 2019).

Two participants in the survey cited health problems as their main reasons for giving up sports. Since the specific types of health issues were not provided, no further analysis was conducted in this regard. Other authors often group health problems and injuries into a single category (Moesch et al., 2012; Ivanova, 2019). However, in the current research, they are not grouped together since health problems may not necessarily be related to sports, whereas sports injuries are typical of sports participation.

Age was one of the least-mentioned reasons, with only two participants (aged 28 and 31) noting it as a reason for terminating

their SC. Retirement from sports at this age can be considered somewhat standard, as there is a certain decline in sports indicators for artistic gymnasts starting around age 25 (Platonov, 2004, p. 448). Foreign experts rarely cite age as a reason for sports withdrawal in their research (Moesch et al., 2012; Dergach & Zavyalova, 2013). It's worth noting that athletes often struggle to maintain peak performance for an extended period due to the specific demands of their sports. Artistic gymnastics and combat sports, for example, typically require athletes to maintain a high level of adaptation for only 1-3 years, making it challenging to sustain top performance over a longer period. Top level performance in these sports over the period of 5-8 years is viewed as successful (Platonov, 2004, p. 444).

The current research does not mention several reasons for sports career (SC) termination that are commonly encountered in studies conducted in other countries among athletes of various sports, such as overtraining, physical and psychological fatigue, low popularity of the given sports, deselection, study reasons, and positive doping tests (Moesch et al., 2012; Dergach & Zavyalova, 2013; Ivanova, 2019; Savchenko, 2019).

Overtraining and physical and psychological fatigue are noteworthy, as they have been frequently mentioned in several studies (Dergach & Zavyalova, 2013; Ivanova, 2019; Savchenko, 2019). For instance, Savchenko (2019) identified overtraining as the primary reason for young athletes in martial arts (aged 16-18) to leave sports. In Ivanova's (2019) research, 41.25% of students aged 17-23 dropped out of sports due to physical and psychological fatigue. It's estimated that 7-20% of elite athletes experience overtraining (Platonov, 2015),

with sports injuries and depression being related expressions of overtraining (Platonov, 2015). Overtrained athletes often exhibit weakness, mood decline, and a negative attitude toward training (Aghajanyan, 2015, p. 411).

While some reasons identified in this research (such as sports injuries and lack of motivation) theoretically may be connected with overtraining, further well-founded arguments are necessary to confirm or refute this hypothesis.

It's important to note that several factors limiting the sports careers of adult Armenian gymnasts may stem from the socio-economic characteristics of Armenia. Inadequate sports infrastructure conditions, insufficient financial support, and a lack of assistance for injury treatment or rehabilitation could be attributed to the socio-economic context of the country and the policies pursued in the sports sector. The sphere of sports in Armenia is overseen by the Ministry of Education, Science, Culture, and Sports of the Republic of Armenia (RA MoESCS) (Internet: www.escs.am/en). The activities of the sports sector and individual sports are regulated and developed by the RA MoESCS, the Olympic Committee, and federations in accordance with the legislation of the Republic of Armenia. An examination of the expenditures of the Armenian Gymnastics Federation in recent years has shown that finances have been primarily allocated for hosting championships and facilitating athlete participation in international events (Internet: www.escs.am). However, specific financial resources have not been earmarked in advance to provide assistance or support to individual athletes (such as injury recovery or financial aid).

The termination of a sports career should not always be viewed negatively,

although many athletes experience a range of psychological problems and difficulties during and after this transition (Ivanov & Stanislavskaya, 2009; Ivanova, 2019). Ending a sports career presents an opportunity for athletes to embark on a new career path. Statistics suggest that approximately 70% of athletes find employment in the sports field as coaches, heads of sports schools, lecturers at higher educational institutions, and so forth (Tsizidova, 2018, pp. 5-6).

The majority of participants in the research (88.16%) ended their sports careers between the ages of 18 and 24, highlighting the relevance of the identified reasons, especially during this period. The multi-year training period for male artistic gymnasts typically spans three stages: 1) preparation for high achievements (from 17 to 19); 2) maximizing individual potential (from 20 to 22); and 3) maintaining a high level of professionalism (from 23 to 24) (Platonov, 2004, p. 448).

It can be inferred that many Armenian gymnasts do not complete all stages of multi-year training. While the decision to continue or withdraw from sports is ultimately the athlete's personal right, from a sports perspective, a sports career can be considered complete when the athlete progresses through all stages of multi-year training.

LIMITATIONS

It's important to note that the reasons for terminating the sports careers of artistic gymnasts and athletes, in general, can be classified as voluntary or involuntary (Lavalley et al., 1997). However, the current research does not investigate this aspect. Additionally, some studies suggest variations in the reasons for sports career

termination among adult athletes of different ages (Dergach & Ryabinina, 2011). Therefore, exploring the reasons for sports career termination among adult artistic gymnasts based on data from different age groups could provide valuable insights.

CONCLUSIONS

Among adult Armenian artistic gymnasts, 11 reasons for sports career (SC) termination have been identified, with three factors (sports injuries, mandatory military service, employment) emerging as more frequent determinants for withdrawing from sports. Both similarities and differences exist between the SC termination reasons of Armenian artistic gymnasts and those of foreign athletes. Notably, mandatory military service ranks among the leading reasons for Armenian artistic gymnasts, whereas it is absent in studies conducted by several foreign researchers. The findings of this study will empower the governing bodies of artistic gymnastics and sports in Armenia to offer more targeted assistance to adult artistic gymnasts, thereby preventing their premature departure from sports. It is advisable for the RA Government and the Gymnastics Federation of Armenia to extend support to gymnasts who have undergone systematic training for many years but have yet to achieve significant sporting success. Additionally, creating specialized training conditions for athletes enlisted in the army can help them maintain physical fitness and facilitate their return to sports later on. Thus, these measures will lay a positive foundation for extending the sports careers of athletes.

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Article received: 31.12.2023

Article accepted: 1.3.2024



