

Investigating the reasons for dropping out by competitive artistic gymnastics

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Abstract

Objective/Background: Taking part in sport can help decrease the risk of children developing obesity and related diseases in an enjoyable way, yet 35% of children dropout from sport each year. In particular, artistic gymnastics struggles with a high dropout rate, with the average age to stop the sport being only 9 years old. The aim of this study was to investigate why competitive artistic gymnasts were leaving the sport and explore ways to keep them engaged. *Materials and Methods:* Following a mixed methods design, 69 participants completed a reasons of attrition questionnaire (Gould et al., 1982) and 7 took part in semi-structured interviews. Descriptive statistics and inductive thematic analysis were used to analyse the quantitative data and qualitative data respectively. *Results:* The data gathered from the questionnaire showed that participants dropped out due to other commitments, not reaching the level they wanted, and because of their age. The qualitative data showed that a variety of factors influenced the decision of gymnasts to withdraw from the sport. The key themes identified through the interviews were having other priorities, negative social experiences, poor perceived competence, lack of motivation, feeling too old and poor coaching behaviours. *Conclusions:* Multiple demands and commitments can be an influential factor particularly for young athletes and as such support plans need to in place to prepare and assist them during that period. The nature of gymnastics as an early specialising sport may lead to drop out at a younger age compared to most sports and therefore strategies that facilitate talent transfer could be in place to provide alternative opportunities for the athletes to remain engaged in sport. Lesson plans ensuring skill progressions and classes specifically designed for young adults would also be beneficial for wider participation. Finally, coaches need to undertake continuous professional development to be equipped with the necessary knowledge and skills for effective talent development.

Keywords: Gymnastics, Mixed Methods, Dropout, Sport Participation, Disengagement

Introduction

Previous research suggests that the sporting world struggles to keep children and teenagers engaged and involved in sports, with approximately 35% of children enrolled in sport dropping out each year (Breuner, 2012; Witt & Dangi, 2018). This proves to be an issue due to the significant increase in child obesity, diabetes, and cardiovascular diseases, that have been witnessed in recent times (Cesare et al., 2019). Keeping children interested and participating in sports could aid in decreasing the risk of developing such diseases by helping them reach the minimum physical activity guidelines of 60 minutes of moderate to vigorous activity per day (NHS, 2019). Sport provides children with an enjoyable way to be active and according to Bailey et al. (2015), sports participation or physical activity is crucial for healthy human development. Continued participation in sport causes many health benefits including physical and psychological improvements (Malm et al., 2019). Long term engagement enhances cardiorespiratory fitness, muscular strength and plays a role in increasing sleep quality and immune system function (Bailey et al., 2015). Mentally, those who take part in sport have been found to experience greater levels of happiness and self-confidence than those who do not partake (Collins et al., 2020; Frey & Gullo, 2021). These benefits can help reduce the health issues associated with child obesity, thus stressing the importance of younger populations continuing in sport.

Despite the wellbeing benefits associated with sport participation, there are also negative connotations connected to sport which can influence a child's decision to continue taking part in sport. Competing in sport has often been referred to as a stressful experience with excessive pressure being placed on the athlete to perform well (Hsu et al., 2019). Young athletes are not only held to high expectations from their coach but by themselves, their teammates, and their parents (Kroshus et al., 2015). This can cause an increase in anxiety which often negatively affects the athlete's performance and in turn leads to a decrease in motivation (Sagar & Lavallee, 2010). There is also a high risk of getting seriously injured when taking part in sports (Davies et al., 2020). Therefore, it is clear to see why some individuals do not want to continue.

The act of an athlete dropping out from their sport has been described as a multidimensional process and thus it is not possible to define the reasoning with any single factor (Koukouris, 2005). Previous research has examined a variety of different sports and the athlete's reasoning for withdrawing from them. Despite the

differences between each sport many studies have identified the same key findings. A main discovery of dropout was that negative social experiences caused disengagement. Persson et al. (2020) found that athletes withdrew because of poor relationships between players which created an unpleasant atmosphere to train in. This included not making any friends within their team or examples of being bullied. It was also suggested that different levels of commitment required at competitive level impacted these relationships, with those who did not like the seriousness or pressure of being on the team feeling excluded from their peers (Persson et al., 2020). Similarly, Rottensteiner et al. (2013), completed a study focusing on football, basketball, and ice hockey, where it was found that the athletes dropped out due to a strain in team dynamics.

In addition, another common reason for sport dropout is that athletes would rather prioritise their time elsewhere. A study by MacCosham and Gravelle (2018) revealed that junior ice hockey players withdrew because they 'had other things' they would rather be doing. It was found that the athletes had limited time to spend on leisure activities as a result of their training schedule taking up most of their time meaning the players did not have the opportunity to explore their other interests. This is mirrored by Mudrak (2010) who found that sprinters dropped out prematurely as a result of needing a new direction in life as all they had known since childhood was competing and training.

Although many sports suffer from high dropout rates, artistic gymnastics is one sport in particular that struggles to keep children involved. To achieve the complex skills that are required, gymnasts must develop physical components such as power, strength, and flexibility, whilst overcoming psychological barriers including fear and pressure (Mkaouer et al., 2018). Due to the intricate nature of the sport athletes must train for numerous hours each week to perfect their routines and often begin the sport at a young age of approximately 6 years old (Pion, 2015). The young starting age is essential to become a competitive gymnast with those who wish to perform at an elite level needing between 8 to 10 years of prior training (Martindale et al., 2007). As a result of the intense training, it is common for athletes to specialise in the sport at an early age meaning gymnastics becomes the only sport they focus on, which can often lead to an early dropout (Myer et al., 2015). When athletes are forced to spend all their time training it can be detrimental to their health. In extreme cases, completing the strenuous exercise regularly that is required to be a competitive athlete, in conjunction with the psychological pressure of competing, can lead to athletes burning out (Kliethermes et al., 2020). This is both a physical and mental state of exhaustion, suggesting that if athletes are not given enough time to recover between sessions it could limit their performance (Sarkar, 2017). Specialised athletes are more likely to train year-round and compete in more competitions than those who are not focused on a single sport (Bell et al., 2016). This is an issue as it has been found that participating in one sport for a period greater than 8 months within a year causes an increase in injury risk to the hip or knee from overuse (Bell et al., 2016). Athletes withdraw from the sport when they can no longer cope from the physical or mental burnout (Isoard-Gauthier et al., 2016).

It is also common for those who cannot keep up with the constant progression of skills and increasing difficulty to quit gymnastics. When athletes are unable to persevere with the loads, they can become demotivated because their skill level is not as high as their peers and no longer want to continue. A study by Pion (2015) found that over a 5-year period approximately 200 gymnasts had stopped the sport while only 35 continued to compete. Those who were still competing had a much greater score on all physical fitness tests for flexibility and strength than those who decided to withdraw. It has been suggested that this is linked with the self-determination theory where athletes who are more intrinsically motivated have a greater chance of being self-determined (Calvo et al., 2010; Ryan & Deci, 2000). Ryska et al., (2002) revealed that gymnasts who dropped out had a greater chance of being extrinsically motivated compared to those who were still participating. This suggests that those who do not possess the skill level to win medals in competition, withdraw from the sport.

A study by British Gymnastics (n.d.) discovered that among the top reason's participants left the sport were that they did not get on with the coaches or the classes were too boring and repetitive. These factors could contribute to the fact that 91% of the former gymnasts went on to pursue another sport. As the skills in gymnastics are so complex, they will often repeat the same drills or moves to try and achieve a new skill (Sands, 2000). Therefore, it is understandable that gymnasts may feel the classes are boring, especially if coaches lack the creativity to make drills engaging. However, if the athlete's goal is to perform a back somersault but they cannot yet execute a backward roll, it is not practical for the athlete to expect to achieve such goals without going through the relevant progressions (Culjak et al., 2014). Therefore, it is essential for coaches to plan lessons in a way that is enjoyable yet ensures skill development. On the other hand, it may be the coach who experiences impatience with the lack of progress their athletes are making especially if they know the gymnast is physically capable but not mentally ready (Chase et al., 2005). This often leads to coaches teaching through an authoritarian style and leaving gymnasts especially vulnerable to abuse (Smits et al., 2017). Gymnastics coaches have been known to force their athletes to continue training or competing despite being injured, give physical punishments, or verbal abuse and put their gymnasts on dangerous diets (Kerr et al., 2019; Pinheiro et al., 2014; Tynan & McEvilly, 2017). Due to these coaching methods, it is understandable why some gymnasts may dropout.

More research is needed to focus specifically on competitive artistic gymnasts, as at present there is very limited literature on this population. The existing studies do not cover both psychological and physical aspects of dropout, nor does it explore ways to keep gymnasts engaged in the sport. Therefore, the topic needed to be examined from a holistic perspective. The aims of this study were to a) investigate why competitive artistic

gymnasts are stopping the sport and b) explore ways to keep competitive artistic gymnasts engaged in the sport. The research question was, why are competitive artistic gymnasts leaving the sport?

Methodology

This study followed a mixed method design using both a questionnaire and interviews to investigate why the participants had dropped out from gymnastics. This design allowed for the strengths of both instruments to be used in conjunction. The questionnaire enabled a broad range of data to be gathered from a large sample size whilst the interviews meant the topics and answers received in the questionnaire could be examined in more depth (Regnault et al., 2018), allowing for a greater comprehension of the data. Ethical approval was obtained from the Edinburgh Napier Research Ethics and Integrity Committee prior to collecting any data (approval code UG2021_041).

Participants

To be eligible for involvement in the study the participants must have been a retired competitive artistic gymnast over the age of 16 years old. Participants were excluded if they competed in a different gymnastics discipline or if they only participated recreationally. Participants were recruited voluntarily through social media posts, with those willing to complete the questionnaire clicking the link attached at the bottom of the post and those who were interested in completing an interview contacting the researcher *via* email. The beginning of the questionnaire included an information sheet and consent form where a check box had to be ticked saying the participant understood the study and agreed to take part before they could progress onto the questions. For the interviews, an email was sent out to participants containing the information sheet and consent form, which had to be sent back to the researcher electronically signed before organising a date and time for the interview to take place on. The questionnaire had a final total of 69 participants (66 females, 3 males) whilst 7 participants (6 females, 1 male) completed an interview.

Questionnaire

The questionnaire was based on the reasons of attrition questionnaire (Gould et al., 1982) and was made using Qualtrics software (Qualtrics, 2020, Utah, USA). The first page consisted of asking background information which included the participant's gender, age, age they left gymnastics and the level they last competed at. Following this was the reasons of attrition questionnaire which involved 29 factors such as 'it was boring' which may have impacted the participant's decision to stop gymnastics. Each factor was scored based on how important it was in impacting their decision to stop gymnastics using a Likert scale ranging from 1. Not important, 2. Slightly important, 3. Moderately important, 4. Quite important to 5. Very important.

Interviews

All interviews were conducted online *via* WebEx (Cisco Systems, USA, 2007) and lasted approximately 15 minutes. Each interview was recorded with audio only as participants were instructed to turn off their cameras before the recording began to allow for privacy. All recordings were anonymised by using numbers instead of names and the participants were unidentifiable. The interviews were semi structured as this allows the researcher to be organised prior to conducting them and gives flexibility to ask questions so the participant can expand on thoughts if the researcher believes it is relevant (Magaldi & Berler, 2018). There were 11 questions used which were open-ended as this permits the researcher to gain an in depth understanding of the participant's experience and feelings on their time in gymnastics (Singer & Couper, 2017). The questions were centred on the following topic areas: overall experience, training load, period of dropout, coaches, teammates, other sports and what could have been done to keep them in gymnastics. The questions were based on previous literature as it has been suggested that doing so increases the validity of the questions due to being created by multiple experts in the subject area (Bolderston, 2012). In this study the questions were based on literature by Sports England (2012), Fraser-Thomas et al., (2008), and Boiche & Sarrazin (2009).

Data Analysis

The responses to the questionnaire were reviewed and screened for any missing data. The responses that were incomplete were removed from the analysis. Descriptive statistics were run on SPSS software (IBM SPSS Statistics for Windows, Version 24.0, USA) to calculate means and standard deviations for each factor impacting the participants decision to stop gymnastics. The means were then ranked from highest to lowest, to determine which factors were most to least influential in deciding to disengage from the sport.

For the qualitative data, each interview was transcribed into text which included all pauses, stutters, and slang words to make the data as accurate as possible to what each participant said. Once transcribed, the audio recordings of the interviews were deleted for privacy. Thematic analysis was used to analyse the interviews as it allows flexibility when uncovering themes in the data (Nowell et al., 2017). The first step involved becoming familiar with the data through reading the transcripts several times. The second step of initial coding was completed by highlighting and documenting interesting and key quotes from each interview. Then, the codes were assembled into possible themes and data was collected for each theme. Next, the themes were reviewed to ensure they worked with the data as a whole and a thematic map was created. Finally, the themes were defined and selected (Javadi & Zarea, 2016).

Trustworthiness

Several steps were taken to ensure the trustworthiness of the data. A pilot interview was completed to test the relevance of the interview questions and alter them if there were any issues (Majid et al., 2017). The participants were emailed a copy of the transcription from their interview and asked to review it as research suggests that doing so increases the credibility of the data (Korstjens & Moser, 2018). The participants were given the chance to change or add anything to their answers, to confirm that the data accurately represented the points they wished to make. There were 5 participants that responded and said there was nothing they would like to change while 2 participants did not respond. To further guarantee trustworthiness, the study supervisor reviewed the transcripts to verify that they came up with the same themes as research recommends doing this to increase the confirmability of the data (Korstjens & Moser, 2018).

Results

Questionnaire

The highest ranked reason found for withdrawing was that the participants had other things to do (M = 2.91, SD = 1.28). Not being as good as the participant wanted followed in second place (M = 2.83, SD = 1.38) and being too old (M = 2.77, SD = 1.40) came in third place. The factor which held the least impact on their decision to dropout was that the sport was not popular (M = 1.09, SD = 0.33). Parents or friends no longer wanting the participant to compete (M = 1.20, SD = 0.63) and not liking to awards (M = 1.20, SD = 0.63), also held little impact on the participants' decisions.

Interviews

The average age to start gymnastics was 5.6 years old and to stop gymnastics was 14.5 years old. This meant that the average time the participant's spent training in gymnastics was 8.9 years. From the thematic analysis of the interviews common themes were detected. In the following results, descriptions are used as this gives the reader an overview of the themes in context and quotes are used to provide evidence (Eldh et al., 2020). The themes and sub themes that arose during the interviews about the participants' experience in gymnastics are shown in table 1.

Table 3. Themes and sub themes identified in interviews about gymnastics experience

Main Themes	Sub Themes
Overall Experience in Gymnastics	Social Experiences
Poor Coaching Behaviours	
Poor Perceived Competence & Lack of Motivation	
Steps to keep Gymnasts Engaged in the Sport	

In general, the majority of the participants enjoyed their overall experience in the sport. Out of the 7 participants 6 of them all had something positive to say when asked about their time as a gymnast; however, many participants admitted that the sport was not always enjoyable. As a result of the training being difficult the overall experience was often described as having periods of loving the sport mixed with periods where they struggled with aspects of the training.

'It was good overall [the experience]. It's an interesting sport but it can be hard at times, like there were days where you would be motivated to train and vice versa. Like it just depends on your mood and the day.'

Participant 5

'I look back on it fondly. I do remember enjoying a lot of it. I think I remember being quite scared as well though... So I remember it being like a bit of a rollercoaster in a sense of when things were easier I was probably enjoying it more than when things go a little bit tough.'

Participant 6

Despite these participants stating they had an overall positive time in gymnastics, there were several aspects that negatively impacted their experience, as they all withdrew from the sport. These factors were negative social experiences, poor coaching behaviours, poor perceived competence, lack of motivation and other priorities and are expanded upon below. Only 1 participant described their overall experience in gymnastics as negative. This participant stated that their time in the sport was only positive when they first started, but as they got older the sport became more intense and less enjoyable, as a result of poor coaching. The coaches were described as not caring about the gymnasts and were only there to make money.

'I found my younger years a lot better, it was a lot more fun and I was doing a lot more stuff... but the older I got the more pressure, I don't want to say pressure but pressure in a bad way... the coaches were

horrible like the coaches were just not there for you. They were just, they were making money so they're gonna get what they can out of it.'

Participant 2

All the participants got on well with their teammates and the other people in the club. Through the quotes it is easy to see that the social aspect of gymnastics made a great impact on their overall experience. For many of the participants, there was a strong bond formed between themselves and their friends in the sport and they showed a great deal of loyalty towards them. One participant expressed the reason they did not leave gymnastics sooner was because they did not want to leave their friends. Similarly, another participant found that having good friends in the sport really motivated them in training.

'I got on really well with the team. I'm still friends with a lot of them... they wanted me to stay [in the sport] and that was kind of why I did stay because I didn't want to leave my pals.'

Participant 2

'Some of my best friends are from gymnastics... I love being with my friends and getting to do my sport with them was really good and motivating.'

Participant 7

Despite getting on with all the other gymnasts in their club, 2 participants found that the age gap between teammates started to negatively impact their time in the sport, with 1 participant determining that this was a main reason for dropping out. Being older than most of the other gymnasts in their group caused these participants to feel that the social aspect of going to training was taken away, with one stating that they began to feel isolated having no one left their age to talk to. This also led to 3 of the participants stating that they felt too old to still be in gymnastics and was a main reason they dropped out.

'I think that people you train with are a big part of the sport... I trained with people that I did like but I also got older and there was too many younger ones getting moved up to the group so that social aspect wasn't really there anymore... I ended up just feeling more alone and too old and all that. So that was mainly why I didn't enjoy it as much.'

Participant 3

'I remember getting on really well with them but I do remember it being quite like a mixed age range... I think I was just getting to that age where I was thinking is it okay to have friends that are 3 years younger than me and I'm gonna go to high school and I did start to worry about those kinds of things.'

Participant 6

The opinions that the participants had on their coaches were mixed. Out of the 7 participants 3 only had praise to give their coaches, while 4 participants had undergone negative experiences with theirs. These ranged from the coaches not caring about their gymnasts or their progress, to harming behaviours such as physical punishments and verbal attacks.

'I had a couple [coaches] who were like bullies. I was like telling my friend as well that we were like on a diet when we were like 8 and my coaches used to like come and look through our lunch box and tell us what we could and couldn't eat. And my friend was like that's really messed up. But then I had some really nice coaches who were like motherly you know?'

Participant 4

'The coach I had in my group was really nice... she did make it quite exciting and interesting... she did push you enough to get you to try new skills, she did say she believed in you and encouraged you and stuff like that but she was never really nasty or strict with the coaching I wouldn't say... If I did have another one of the coaches I would of maybe quit a bit earlier... they just didn't really care about their gymnasts as much. They didn't really want to be there as much as the other coaches. They just wanted the dollar.'

Participant 3

Developing further on the negative experience with coaches, a total of 2 participants named their coaches as the main reason they dropped out. One of these participants said this was because the coach did not care about the gymnasts improving so did not see the point in continuing while the other participant found their coach said inappropriate comments.

‘The main coach, he would not push you to do anything and would constantly insult you... they just thought they could say whatever and it was okay or it was a laugh and it just got to the point where I was just like nah I don’t think, I don’t find this funny.’

Participant 2

A common theme that arose when talking about the coaches was that the ex-gymnasts felt the coaches only cared about the younger athletes as they had a greater chance of making it as an elite gymnast compared to those who were older and not showing as much potential anymore.

‘I felt like they were very focused on like the elite level kids if that makes sense. So like if you couldn’t do something they didn’t really focus on you, they’d focus on the better ones so it wasn’t very fun like they weren’t very interested... When I was younger they just wanted you to get better, they didn’t really care if you were enjoying it.’

Participant 7

‘I feel like everybody in this sport is kind of um just very orientated about like the younger kids, so as soon as you get to the stage that I was at when you’re a bit older, you’re kind of not going anywhere with it so they don’t really like pay attention to you as much even if you’re there just for the fun of it, they just focus on the younger ones.’

Participant 3

Three participants found that they lacked the motivation to continue training and had a decrease in skill progression. Several of the participants felt their skills were no longer improving which heavily impacted their decision to withdraw.

‘I couldn’t be bothered and like I wasn’t getting any better or anything cause I didn’t really want to, like I wasn’t competing anymore, so then like cause I wasn’t really competing I just couldn’t really be bothered doing the training.’

Participant 4

‘It just felt like I was doing things that I couldn’t really be bothered doing. Like in the stretch everybody else was doing I’d be liking making excuses like oh I can’t do that my foot hurts but it was just a bit like awkward I can’t really be bothered.’

Participant 1

A further 2 participants found that they would rather prioritise their time doing other activities. For 1 participant they discovered that their passion was in rugby and dropped out from gymnastics to focus on this. They also thought they were less competent at gymnastics than they were at rugby. The second participant wanted to spend more time with their friends and focus on school exams.

‘I was enjoying rugby more but I also think I hit a bit of a ceiling in terms of my gymnastics. Like I wasn’t the most talented... it started to get quite tricky and I was struggling with that.’

Participant 6

‘I had a lot on at school and it was just like a different stage of my life. I had, I wanted to see my friends more...’

Participant 7

When asked if there was anything that could have been done to make the participant want to stay in gymnastics, 6 participants said there was. There were 3 participants that mentioned altering the training load and 1 participant talked about adding a class specifically for older gymnasts but who were still too young to move into an adult level class. A further 2 participants said that they would like the coaches to be more relaxed if they wanted to miss a day of training and another 2 participants stated that they wished they had known about the other disciplines in gymnastics which they felt might have suited them better. A single participant would have stayed if the classes were not so repetitive.

‘If they had classes for either adults or more teenage classes where there were more people my age and similar ability then I think I would continue for a bit longer.’

Participant 3

‘I wasn’t really aware of any other disciplines within gymnastics other than just women’s artistic and men’s artistic so um maybe if there was an option to not do 3 days a week or go into a different

discipline or to go into just like a more recreational sense... freestyle wasn't a thing back then, team gym was but it was only the very beginning. Those were potentially options that would have suited a bit better because they don't train as much and are a little bit less strict and rigid.'

Participant 6

Discussion

The aim of this study was to determine the main reasons that competitive artistic gymnasts were leaving the sport and discover ways to keep athletes engaged for longer. The results showed that the reasoning could not be defined to any single theme but instead a variety of factors impacted why the gymnasts dropped out. The main findings from the questionnaire suggested that the key themes impacting dropout were linked to having other priorities, poor perceived competence and feeling too old. The interviews supported these key themes alongside poor coaching behaviours and negative social experiences.

Having other priorities has been a commonly cited issue for athletes leaving different sports within previous literature (Eliasson & Johansson, 2020; MacCosham & Gravelle, 2018; Rottensteiner et al., 2013). These priorities were specified in this study's interviews as wanting to spend more time with their friends, focusing on school exams and other sports. As children are given more freedom the older they become, it comes as no surprise that they do not wish to be left out from any activities planned by their friends to go to training instead. However, those who truly wish to become a competitive champion know that this is a sacrifice that must be made to be successful, which suggests that the sport is not exciting enough to be their main focus. On the other hand, it could be that adolescents have many hobbies, family and school commitments going on in their life to balance and have yet to fully develop their organisational skills (Rottensteiner et al., 2013). MacCosham & Gravelle (2018), found in a study of ice hockey players that the athletes began to form a certain resentment towards the sport as it took up too much of their time when there were other things they wanted to try out. Past research has not taken the time to expand upon what 'having other things to do' means specifically, resulting in it being left open to a wide interpretation on what they would rather be doing. Further research should clarify what the athletes prefer to do to add validity to the results of this study.

In contrast to this finding, Thomas (2017), discovered that their athletes had no issue committing all their time to their training as most of their friends came from within their sport, meaning they got to socialise with them at training and they understood each other's dedication to sport. Differences between the 2017 study and this study could be a result of Thomas' study exploring athletes aged 18 - 21 years old who are still participating in sport, whereas in this study the average dropout age was 14.5 years old and all participants had dropped out. Athletes who are still engaged in sport as adults may have kept participating because they are intrinsically motivated or perhaps, they are competing at a higher level and are dedicated to becoming a champion. The athletes still participating at over 18 years old do not find their age to be an issue however, feeling too old was identified as a cause of dropout in this study. A possible explanation for this is that gymnasts tend to peak at an early age due to the physiological benefits that exist when the athlete is young (Kerr et al., 2015). When younger, gymnasts have a greater chance of possessing a smaller physique and weighing less than compared with when they get older (Bacciotti et al., 2017). This provides them with a better strength to body mass ratio which offers biomechanical benefits in the sport such as creating optimum torque when performing somersaults (Arazi et al., 2013). Kerr et al., (2015), stated that gymnasts who were still competing in their twenties were not able to complete as many repetitions in training and their bodies could not generate the same power for skills as their younger counterparts, suggesting another explanation for feeling too old. Furthermore, this could be a result of the athlete's peers - who do not compete - reaching an age where they are dedicating their time on finding a full-time job or proceeding on to higher education, making the athlete feel they should not focus all their time on sport.

Athletes feeling too old is contradicted by McCarthy et al., (2016), who found that in Rugby Union older players held a greater chance of being selected for the starting team over the younger players. The differences between McCarthy and the present study could be due to variances in the sport. Where gymnasts benefit from a smaller physique, rugby players, specifically forward players, benefit from a larger figure, consequently explaining why they may peak at a later age (Posthumus et al., 2020). This contrast is further supported by Rottensteiner et al., (2013), who found feeling too old was ranked second to last important on a list of 31 factors which may have impacted sport dropout. An explanation for this could be that older athletes have greater experience in the sport thus are able to cope better with the pressure and anxiety that comes with competing so keep training for greater periods of time (Fumarco et al., 2017). This data however, needs to be interpreted with caution as it was gathered through a questionnaire, meaning that it is not possible to fully understand what the participants meant, as they were not given a chance to expand upon the options that were given, reducing the reliability of the data.

One participant in this study suggested that to reduce the dropout rates in gymnastics as a result of feeling too old, the clubs should add another class designed specifically for young adults. Currently, this is not very common for gymnastics clubs. Some gyms do hold an adult's class; however, the athlete must be at least 18 years old to attend and often the classes are not coached, just supervised. By adding a young adult's class, it would allow gymnasts to continue to develop their skills, without taking away the social aspect of the sport that the athletes value.

Lack of motivation and poor perceived competence were found to be an issue for dropping out of gymnastics. This has been a frequent theme found in existing literature (Crane & Temple, 2015; Carlman et al., 2013; Cervelló et al., 2007). It has been reported that athletes who perceive themselves as competent are more likely to be motivated in their sport due to self-efficacy, whereas those who do not believe they are competent, have an increased risk of dropping out from sport (Moulds et al., 2020). This links with the self-determination theory which states that if the three human needs of competence, autonomy and relatedness are met then an individual can grow and change (Deci & Ryan, 2000). Moreover, if the gymnasts are struggling to cope with the skills in artistic gymnastics, advertising the other disciplines within gymnastics could keep them active and engaged in the sport. For example, if an athlete is very flexible but lacks the arm strength to perform on bars, rhythmic gymnastics could be an alternative option (Russo et al., 2020).

The self-determination theory could also provide a possible explanation for the study findings that gymnasts dropout due to poor social experiences. The participants said the age gap between their teammates was too great, which could suggest that they are not experiencing relatedness. This could be a result of not having anything in common to talk about with their peers and not connecting. Additionally, if the teammates create an ego focused motivational climate it can create feelings of jealousy and rejection (Trbojević & Petrović, 2020). This finding is in line with Eliasson & Johansson (2020), who found that when new teams were created in the sports club, it created an age divide which caused the athletes to feel anxious and insecure, influencing their decision to drop out. Interestingly, a recent study identified that features of the talent development environment can predict the motivational outcomes of athletes and therefore characteristics of the motivational climate and coach behaviours need to be carefully considered (Andronikos, Souglis et al., 2021). As such, coaches can include team-building exercises and encourage team bonding. This could help develop a task focused motivational climate, where the team praises and admires each other and their efforts (Trbojević & Petrović, 2020). The issue with this however, is that many coaches may not know how to incorporate this into practice the same way they would know how to teach the technical skills.

Poor coaching behaviours were also identified as a reason to withdraw from gymnastics. This finding is in line with previous research which highlighted the negative impact coaches may have on the development process of athletes (e.g., Andronikos et al., 2019). In addition, Molinero et al., (2009) identified that the main reason for dropping out of football, basketball and volleyball was not liking the coaches. It may be that these participants were coached with an authoritarian style where their freedom and autonomy was limited within training, which can often lead to demotivation (Rahbi et al., 2017). Coaching with constant negative feedback can also make the athlete feel that they are not good enough at the sport and want to quit (Kim & Lee, 2019). Coaches have been found to play the biggest role in motivating an athlete, more so than the athlete's family, showing the importance of good coaching practices (Keegan et al., 2014). To tackle this problem, coaching with an autonomy-supportive style could help motivate gymnasts to stay in the sport longer as they would be given choice and positive feedback (Carroll & Allen, 2021). It has been suggested that poor coaching can be a result of the coach not receiving adequate training (Gearity & Murray, 2011). To reduce the risk of dropout as a result of poor coaching, gymnastics clubs should aim to send coaches on regular training days to advance their knowledge and skills.

Limitations & Future Research

A limitation of this study was that there was an uneven male to female participant ratio. This means that gender differences for dropping out of gymnastics may not have been identified. Future research should focus on a single gender or compare both genders to investigate why competitive artistic gymnasts dropout. This should be researched due to differences in the sport between the genders. Male and female artistic gymnasts compete on different apparatus - men compete on 6 pieces of equipment, while women only compete on 4 (Atikovic et al., 2017) – and the apparatus they do have in common is performed differently from each other. For example, men's floor routines consist of mostly tumbling and strength skills while women's floor is performed to music with dance and leaps incorporated to show elegance, flexibility, and strength (Kalinski et al., 2018). This is a result of the different genders having different fortes due to their physiology. Males peak at a later age than females as they mature later so do not have to specialise in gymnastics before the age of 14 (Kalinski & Atikovic, 2018). As a result, this may cause variations in training and training intensity, consequently impacting the reasons why athletes might dropout.

Conclusion

In conclusion this study aimed to explore why competitive artistic gymnasts dropout from the sport. The results found that there were multiple factors influencing the participants' disengagement from gymnastics. Experiencing an age gap between teammates took away from the athletes' social experiences and gymnasts often felt too old for the sport. This could also be attributed to the fact that gymnastics is an early specialising sport which can lead to drop out at a younger age compared to most sports. As such, strategies that could encourage and promote talent transfer can be in place to provide additional opportunities for the athletes to remain engaged in sport by undertaking another discipline within gymnastics or an alternative sport based on their strengths and skills. Several ex-gymnasts perceived poor competence and lacked the motivation to continue training, so they

withdrew from the sport. Dropout was also a result of having other priorities such as spending time with friends, focusing on school exams or poor coaching behaviours. Multiple commitments can be an influential factor for young athletes particularly during the junior to senior level transition. Therefore, a support plan needs to be in place to prepare and assist the athletes with the increasing demands throughout their development process as highlighted in the recent literature (e.g., Andronikos, Westbury et al., 2021). Additionally, coaching behaviours and the nature of the talent development environment need to be carefully considered to ensure that they facilitate the holistic development of the individuals rather than focusing on early outcomes and applying excessive pressure. Potential solutions for the issues identified in the current study are related to the structure of the pathway, the training practice, and the education of the coaches. Classes can be designed with a focus on skill development and progression. In addition, classes specifically for young adults can be created to promote long-term engagement even at a non-competitive level. Finally, coach education needs to ensure that continuous professional development takes place to equip coaches with the necessary knowledge and skills to facilitate the effective development of young talented athletes.

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