Spurred by Pressure: The Impact of Professional vs. Amateur Competitor Status on Competition Anxiety Levels in Equestrian Athletes

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Introduction

In the high-stakes, and often stressful, realm of competitive sports, mental resilience often determines performance just as much as physical skill or training. While there is a wide variety of mental challenges competitive athletes face, competition anxiety stands out as especially disruptive and detrimental to performance. Characterized by nervousness or apprehension before or during competitive events, this form of anxiety can significantly impair an athlete's ability to perform–even in the most confident individuals. While this phenomenon of competition anxiety has been researched across a variety of sports, equestrian disciplines are majorly left out of this research. Equestrian sports pose a unique psychological challenge: they require equestrian athletes to not only control their performance and actions, but also remain attentive to the rhythm, behavior, and movements of the 1,000-pound animal beneath them–the horse.

The interdependence between horse and rider creates a complex dynamic within equestrian disciplines that cannot be recreated in other sports, therefore intensifying competition pressure. Within equestrian competition, athletes are classified as either amateurs, individuals who do not profit from the sport and have limited experience, or professionals, individuals who do profit from the sport and have high levels of experience. Whether a competitor's status as an amateur or professional equestrian athlete affects their levels of competition anxiety remained largely unexamined in existing research.

This study sought to address that gap by analyzing whether professional or amateur competitor status impacted levels of competition anxiety in equestrian athletes. By exploring this relationship, the research aimed to shed light on how competition anxiety and competitive pressure manifest differently depending on an athlete's experience and confidence levels. The findings could offer meaningful insights for equestrian athletes, trainers, and sports psychologists as they navigate the incredible mental demands of one of the world's most challenging sports.

Literature Review

Overview

According to a 2019 study conducted by respected psychologists David L. Rowland and Jacques van Lankveld, approximately 30-60% of competitive athletes across all sports experience some form of competition anxiety, more commonly known as performance anxiety. Jessica Ford, associate professor of philosophy at Baylor University, defines general anxiety as "an unpleasant psychological state in reaction to perceived stress concerning the performance of a task under pressure" (Ford et al.). Joe Puentes, clinical and sports psychologist, defines one of anxiety's more specific forms, competition anxiety, as "a psychological phenomenon characterized by a heightened sense of apprehension, fear, or nervousness experienced by athletes before or during competitive events" (Puentes). Competition anxiety can cause nervousness about upcoming athletic endeavors, impacting athletes' ability to compete to the best of their ability. Anxiety is extremely common for athletes at all skill levels to experience, including professional and amateur equestrian athletes. According to the governing body of equestrian sports, The International Federation for Equestrian Sports (FEI), and as reported by equestrian journalist, Kate Samuels, an amateur equestrian athlete is "an individual who does not accept remuneration for activities related to equestrian sport." In contrast, a professional equestrian athlete is "someone who receives payment for equestrian-related services, such as training, showing, or riding" (Samuels).

Equestrian Athletes

Elizabeth Scott, orthopedic surgeon and professor of orthopedic surgery at Duke University, defines equestrian athletes as individuals who compete in the “broad range” of equestrian sports, from the western disciplines of reining, trail riding, and cutting cows to the Olympic sports of dressage, cross-country, and showjumping (Scott). Within these various disciplines, Hilary Clayton and Sarah-Jane Hobbs, revered exercise and sports scientists, state “Equestrian sports are unique in that they involve the participation of two athletes that differ greatly in morphology yet are able to move together harmoniously” (Clayton and Hobbs). This statement effectively sums up the purpose and challenge of equestrian sports, and may even reveal a large contributor to many equestrian athletes’ competition anxiety levels, as success is dependent not only on the performance of the rider, but also the responsiveness of the horse. Bong-Ju Sung, a prolific sports researcher, does a good job of explaining the role of equestrians when in the saddle, stating “Riders control the movement of the horse by maintaining equilibrium between hands to upper-forearm of riders and reins-bit. Riding requires rhythmically continuous physical movement with the horse.” Sung also highlights that within his research, he discovered that equestrian athletes have similar respiratory capacities to soccer players, affirming riding as effective aerobic exercise (Sung et al.).

Competition Anxiety

Competition anxiety was previously defined (see Overview) as “a psychological phenomenon characterized by a heightened sense of apprehension, fear, or nervousness experienced by athletes before or during competitive events” (Puentes). The pressure of not only moving “in phase with the horse,” but also improving the horse's natural movements, two skills imperative in equestrian athletes' competitive success, is incredible (Clayton and Hobbs). For many equestrian athletes, this pressure results in extreme levels of competition anxiety. Dara Mojtahedi, a reader in forensic psychology and the Deputy Director of the National Policing Doctoral Programme, defines competition anxiety as a “negative emotional response to competition stressors exhibited prior to and during athletic performance.” Mojtahedi describes that an obstructive anxiety response occurs when a competitive-related situation is perceived as intimidating or alarming (Mojtahedi). Also described in Mojtahedi’s study were possible triggers of competition anxiety. It is stated, “Pressure to succeed, coupled with the risk of severe injury can induce significant levels of anxiety, which if uncontrolled, can negatively impact performance and possibly promote unsporting conduct.” There is significant pressure to succeed in equestrian sports, especially among the professional demographic. Simon Rice, a respected men’s health researcher and clinical psychologist, reports in his study on mental health in elite athletes that elite athletes have extremely high levels of mental disorders, such as anxiety (Rice). This could be due to the unique pressures that elite/professional athletes are subject to based on their high competition and experience levels. Tying back into Mojtahedi’s analysis on the creation of competition anxiety in athletes, equestrian sports are incredibly dangerous. Sports that pose significant risks to competitors are observed to create higher levels of apprehension and nervous feelings in athletes before/during competitive events (Mojtahedi). Lara Krüger, a respected clinical and scientific researcher, discovered in her 2018 study on risks in equestrian sports that “Not only horseback riding itself, but also handling a horse bears a relevant risk for major injuries.” Kruger emphasizes that head injuries are especially prevalent in equestrian athletes. This aligns with research from the previously mentioned researcher, Elizabeth Scott (see Equestrian Athletes). Scott reveals that a 2023 study of 210 equestrians found a higher “incidence of concussion in equestrian sports than football or rugby” (Scott). This

significant prevalence of injury in equestrian sports could be a contributor to competition anxiety in professional and amateur equestrian athletes.

Hypothesis

It was initially hypothesized that professional equestrian athletes would have lower levels of competition anxiety compared to amateur equestrian athletes. This was hypothesized due to the increased competition and general riding experience levels that professional equestrian athletes possess due to their competitor status. In a study done by Sheldon Hanton, Professor of Sport Psychology in the Cardiff School of Sport at the University of Wales Institute, Cardiff, it was observed that “In the absence of self-confidence, increases in competitive anxiety intensity were perceived.” To put it simply, higher experience levels generally correlate to increased levels of confidence and therefore lowered levels of competition anxiety (Hanton), affirming the initial hypothesis stance.

Methodology

To test the hypothesis, a Google Forms survey was conducted containing questions based on the Hamilton Anxiety Rating Scale (HAM-A) and then a thematic analysis was employed. The Hamilton Anxiety Rating Scale is a 14-question anxiety rating tool used to assess the severity of anxiety symptoms in individuals. This scale was chosen due to its proven success in measuring anxiety levels in clinical and research settings. The HAM-A questions are thought-provoking, allowing for an accurate analysis of respondents' competition anxiety levels. Google Forms surveys are popular online data collection tools that help individuals/organizations collect input and data from respondents (Yeager). This survey application was chosen because of public familiarity and the user-friendly, yet comprehensive setup and features. This survey focused on professional and amateur equestrian athletes who experience competition anxiety.

The survey data was intended to shed light on the impact of amateur vs. professional competitor status on equestrian athletes’ competition anxiety. The survey method was chosen to collect and compartmentalize all the received data in a straightforward platform. Surveys are easy to advertise and collect responses for, ensuring variety in respondents’ answers. Additionally, surveys are easy to extract and analyze data from, both being imperative in the research (Jones et al.). Furthermore, the survey method allowed information to be collected using the HAM-A scale and then examined through thematic analysis.

The first page of the survey asks for the respondent's competitor status (amateur or professional). This is used to group the respondents into the amateur respondent group or professional respondent group and analyze their answers based on that group. The next page of the survey included 12 of the 14 HAM-A scale questions (see next section) to measure a respondent's competition anxiety levels. The last slide was an open-response question asking whether the respondent believes competitor status affects levels of competition anxiety. This open response was used to synthesize the respondents' thoughts in their own words and get honest opinions from amateurs and professionals regarding their experiences with competitor status relating to competition anxiety.

Hamilton Anxiety Rating Scale (HAM-A)

The Hamilton Anxiety Rating Scale is a questionnaire used by clinicians and researchers to measure the severity of an individual's anxiety (Rodriguez-Seijas et al.). This rating scale was chosen because of its high regard and extensive success in the medical world. Using the pre-established HAM-A questions ensured easy analysis of results and enhanced accuracy

regarding anxiety measurement. For the research, a modified version of the HAM-A anxiety rating scale was created. Two questions that the HAM-A scale uses regarding gastrointestinal and sexual wellness were not included because they were not deemed relevant to the research. The scale that the HAM-A results were analyzed with was modified as well. There are traditionally 14 questions measured on a zero to four severity scale with a total score range of zero to 56. Therefore the HAM-A scale measures anxiety <17 as mild severity, 18–24 as mild to moderate severity, 25–30 as moderate to severe, and 30+ as extreme severity. Because the survey was shortened to 12 questions, each was measured on a zero to four severity scale with a total score range of zero to 48. Anxiety <13 was mild severity, 14-20 mild to moderate severity, 21-26 moderate to severe, and 27+ was extreme severity.

Thematic Analysis

After the survey collected 140 responses, a number deemed large enough to derive statistically significant data, response acceptance was closed. Research then moved on to the second step of the process - qualitative thematic analysis. Thematic analysis is a method of data analysis commonly used in research where the relationship between prevalent themes in a data sample is determined (Kiger and Varpio). This analysis method was chosen because the relationship between professional vs. amateur competitor status and competition anxiety levels was being analyzed. Thematic analysis allows for trends between two variables to be analyzed, as well as determining how those trends affect the relationship between the variables, making it an obvious fit for data analysis in this research. (Kiger and Varpio).

To begin data analysis, the average of the final HAM-A scores in the professional and amateur respondent groups was calculated, resulting in an overall average HAM-A score for each group. The goal of this calculation was to get an idea of the general trends of competition anxiety across the respondents in each group. The calculated overall HAM-A score allowed for the level of competition anxiety in the professional and amateur respondent groups to be deemed as mild, mild to moderate, moderate to severe, or extreme. A table of these average HAM-A scores with the calculated standard error was then created to be used and analyzed in the data section. Next, open-response answers were copied from the survey data Google Sheet into a document and read through carefully. Responses that were irrelevant or not statistically significant were deleted, and interesting or thought-provoking responses were starred for possible use in the discussion section. This read-through of the open responses allowed for a broad analysis of the overall opinions of the respondents, making trends within the data stand out. Lastly, the open responses were coded on a -1 to 1 scale to be averaged and tabled. Responses answering in some form that competitor status affects levels of competition anxiety were labeled as 1. Responses answering that competitor status does not affect levels of competition anxiety were labeled as -1. Responses that had an unclear position or irrelevant information were labeled as 0. The -1 to 1 scale was chosen for simplicity of understanding. Associating no with -1, yes with 1, and neutrality with 0 is a clear scale to analyze and table. The average of these coded numbers for the professional and amateur respondent groups was calculated and put into a table to be analyzed in the data section.

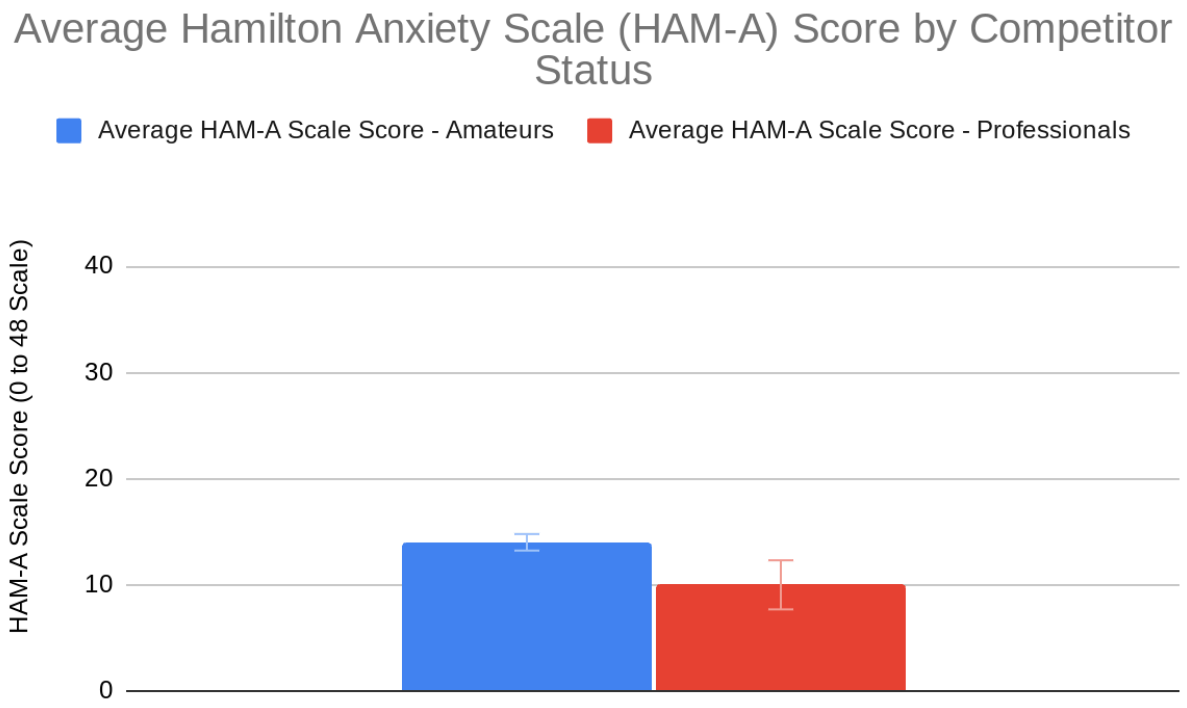
Findings

A modified version of the Hamilton Anxiety Scale (HAM-A Scale) score analysis was employed to begin data analysis. The Hamilton Anxiety Scale traditionally has 14 questions, and each question is measured on a zero to four severity scale with a total score range of zero to 56. Therefore the HAM-A scale measures <17 as mild severity, 18–24 as mild to moderate severity,

25–30 as moderate to severe, and 30+ as extreme severity. Because the survey was shortened to 12 questions for this research, each question was measured on a zero to four severity scale with a total score range of zero to 48. <13 was mild severity, 14-20 mild to moderate severity, 21-26 moderate to severe, and 27+ was extreme severity.

The data was organized into two categories, respondents with a competitor status of amateur, and respondents with a competitor status of professional. Each respondent answered the 12 survey questions and the sum of their zero to four rating on each question added to their final HAM-A score. These final HAM-A scores were collected in two separate data tables (amateur and professional) and the average of all the scores was calculated for each group. This calculation allowed for analysis on how much anxiety amateurs and professionals are experiencing before, during, and after competition, and if the data collected shows a significant anxiety trend within the groups based on their competitor status. In addition to the HAM-A questions being asked on the survey, respondents were asked to respond to an open-response question regarding their opinion on whether or not competitor status affects levels of competition anxiety, whether in their personal experience or generally. This open response allowed for the analysis of real-world opinions, which helped determine the statistical significance of the collected data. The responses were coded for simple analysis on a -1 to 1 scale. Responses answering in some form that competitor status affects levels of competition anxiety were labeled as 1. Responses answering that competitor status does not affect levels of competition anxiety were labeled as -1. Responses that had an unclear position or irrelevant information were labeled as 0.

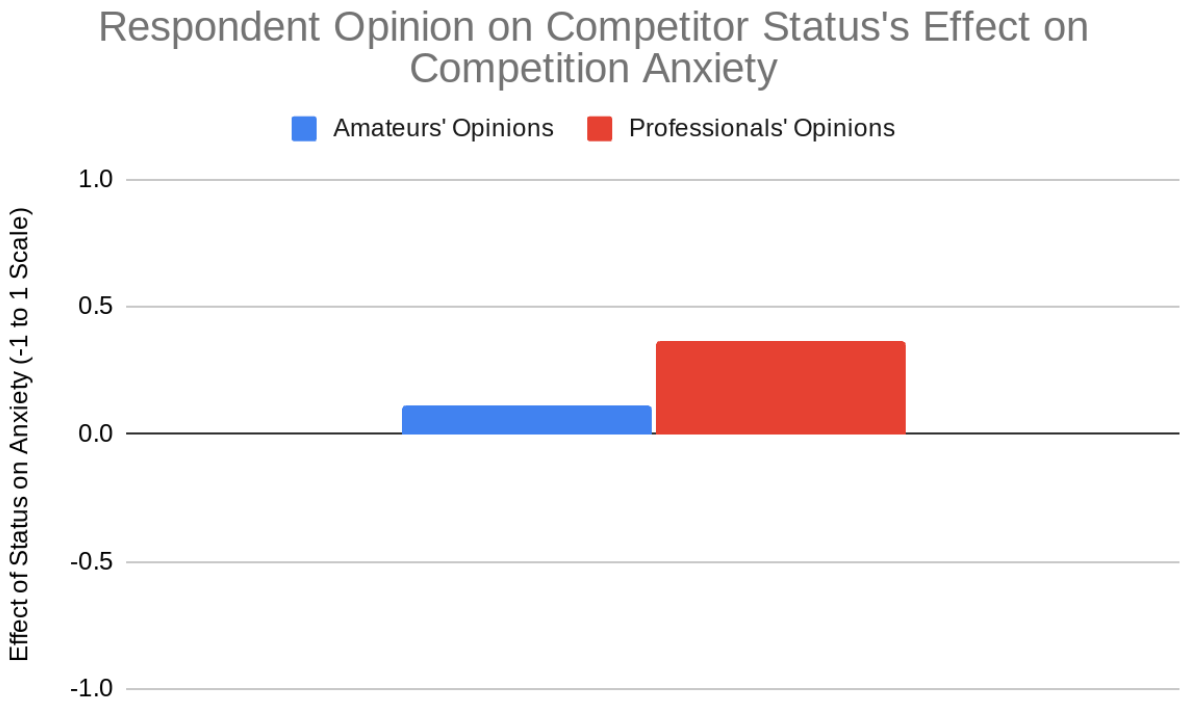
This bar graph, classified as Graph 1, showcases the average Hamilton Anxiety Scale scores for each group of respondents, amateur and professional.



The average HAM-A score for amateur respondents on a 0 to 48 scale was 14.007, while the average HAM-A score for professional respondents was 10. Using the modified HAM-A

scale, this means that the average amateur respondent experienced a mild to moderate severity of competition anxiety, and the average professional respondent experienced a mild severity of competition anxiety. The standard error was calculated for both groups of data. The amateur respondent group had a standard error of 0.7778, while the professional respondent group had a standard error of 2.3134. This higher variability in the professional responses and lower variability in the amateur responses proves that the data has statistical significance despite the low HAM-A scores for both groups.

The following bar graph, classified as Graph 2, is an average of the coded responses to the free response survey question regarding opinion on competitor status's effect on competition anxiety, whether in their personal experience or generally.



The average coded score for the amateur respondent group on a -1 to 1 scale was 0.1157, while the average coded score for the professional group was 0.3684. This shows that both groups were relatively neutral regarding their opinions on competitor status's effect on competition anxiety because responses answering that competitor status affects levels of competition anxiety were labeled as 1, responses answering that competitor status does not affect levels of competition anxiety were labeled as -1, and responses that had an unclear position or irrelevant information were labeled as 0. The amateur respondent group leaned more toward no, while the professional respondent group leaned more toward yes. This graph shows an interesting contrast to graph 1 (see discussion), therefore further enforcing the statistical significance of this data.

Discussion

Graph 1 displays that the average HAM-A score for the amateur respondent group, comprising 121 entries, was 14.007. Using the modified HAM-A scale it can be determined that a score of 14.007 correlates to a mild to moderate severity of anxiety. While a higher average

level of competition anxiety for the amateur respondent group was hypothesized, the contrast in the average HAM-A score between the amateur and professional respondent groups was expected. The professional respondent group, composed of 19 entries, averaged a HAM-A score of 10, correlating to a mild severity of anxiety. The average HAM-A score of 10 for the professional respondent group affirms the hypothesis that professional equestrian athletes would have lower levels of competition anxiety than amateur equestrian athletes (Amateur respondent group had average HAM-A score of 14.007) This higher average anxiety level present in the amateur group could be related to a variety of factors, including their lack of experience and lapses in confidence. According to previously mentioned researcher, Simon Rice (see Competition Anxiety), lower experience levels athletically correlate to higher levels of competition anxiety (Rice et al.). Since most equestrian athletes are young, amateur, females, the fact that the amateur respondent group has higher levels of competition anxiety is not surprising. The professional respondent group having an average experience of mild severity competition anxiety within the research was also expected. Professional athletes generally have higher experience and confidence levels, which contribute to lower anxiety levels. Dr. Gary Souter, head of nursing and midwifery at Montfort University, has concluded that competition anxiety has a direct link to self-confidence levels, and the athlete's self-confidence levels can change leading up to the event depending on the level being competed at (Souter et al.). Since professional equestrian athletes are seasoned competitors, their self-confidence levels tend to be higher, but because they are competing at such a high level in a dangerous sport, they might still experience low levels of anxiety (reflected in the data).

While the amateur respondent group having a higher average HAM-A score than the professional respondent group was hypothesized and unsurprising, the professional respondent group having a significantly larger standard error than the amateur respondent group was interesting. The standard error for the amateur respondent group was 0.7778, illustrating that the final HAM-A score for each amateur respondent did not deviate significantly from the overall average of 14.007. This means that across the board, most of the amateurs surveyed experience mild to moderate levels of competition anxiety. The standard error for the professional respondent group was 2.3134. This means that there was a deviation within the professional respondents from the overall average HAM-A score of 10. This deviation could be evidence of the pressures that professional equestrian athletes feel, heightening their competition anxiety. Angela Goin, prolific sports nutritionist, and researcher, revealed in a 2021 study on mental health struggles in athletes that over 35% of elite/professional athletes experience some form of anxiety. This could be due to the unique performance pressure and public scrutiny that professional athletes experience as a result of their competitor status (Goin). The difference between the standard error of the professional and amateur respondent groups, as shown in Graph 1, can be interpreted as evidence that although amateur equestrian athletes generally have higher levels of competition anxiety, select professionals can succumb to the intense pressures they face due to their competitor status and have uniquely high levels of competition anxiety.

Graph 2 displays that on a -1 to 1 scale the average coded score for the amateur respondent group was 0.1157, while the average coded score for the professional group was 0.3684. These numbers make it clear that respondents were relatively neutral in their open responses on whether competitor status affects competition anxiety. The statistically significant component of Graph 2 is the difference in the average coded score for the professional and amateur respondent groups. It is illustrated in Graph 1 that professional equestrian athletes

have lower levels of competition anxiety compared to amateur equestrian athletes, but in Graph 2 the professionals were more likely to respond that competitor status does affect competition anxiety. This could be evidence that professional equestrian athletes have lower levels of competition anxiety because they recognize the pressures that they face based on their competitor status, and this recognition allows them to handle their anxiety more effectively. A collected open response from an anonymous professional respondent supports this claim, replying, “As a professional, I feel pressure to perform well, however, I am confident in my experience and skill set so it affects me minimally.” Professional equestrian athletes have their professional status for a reason, they are skilled and experienced riders who can perform well under pressure. Although they technically face more anxiety-inducing conditions at competitions than amateur riders, this does not reflect in their HAM-A score because of their competition experience and enhanced ability to cope.

Limitations

Before concluding the research, it is necessary to acknowledge the limitations that could have hindered the final results and their implied importance. The most prominent of these was the sample size. With only 140 responses, the sample size was relatively small, impacting the data’s ability to predict trends within the larger equestrian community. The number of professional respondents was especially small, with only 19 respondents. This small number made it difficult to analyze the collected professional data because there was not much of it. The next and final limitation was human error. There is no way to know the credentials of respondents or the honesty of respondents' answers due to the anonymity of the survey. This could mean that some of the collected data is not reflective of the overall equestrian community, skewing the data.

Conclusion

This research was intended to analyze the impact of professional vs. amateur competitor status on equestrian athletes’ competition anxiety. While competition anxiety levels can be subjective for individual athletes, there were overall trends found within the data collected. Amateur equestrian athletes have higher levels of competition anxiety that are indirectly tied to their competitor status, and professional equestrian athletes have lower levels of competition anxiety more strongly connected to their competitor status. The amateur equestrian athletes' higher levels of competition anxiety not being tied to their competitor status could be due to the low-pressure environments that they compete in, lower skill levels among amateur riders, and the demographic of amateur equestrian riders. The hypothesized trend of professional equestrian athletes having lower levels of competition anxiety more directly tied to their competitor status could be due to the public scrutiny and performance expectations they face but can manage and accept, resulting in lower anxiety levels. To conclude, amateur vs. professional competitor status does affect competition anxiety levels in equestrian athletes, but especially prominently in professional equestrian athletes. The findings of this research could have a significant societal impact on the equestrian community. After overviewing the data, equestrian athletes might feel more community with their peers based on the levels of competition anxiety found in both the professional and amateur respondent groups. The findings could also bring awareness to how competitor status can affect competition anxiety unknowingly, an issue not widely talked about in equestrian sports. Competition anxiety can feel debilitating and isolating, and this research shows that it is normal even for the highest-level equestrian athletes.

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