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# Analysis of the Needs of the Psychological Aspects of Rafting Athletes in West Java

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## Abstract

Rafting is an achievement sport that is carried out in the open air with a high level of risk, so it requires the physical, technical, and psychological readiness of athletes in facing environmental pressure and teamwork. However, the psychological aspect of rafting athletes has not been fully used as a basis for coaching, and studies that specifically discuss psychological needs in this extreme sport are relatively limited. This study aims to analyze the needs of the psychological aspects of rafting athletes in West Java as the basis for the development of more directed mental coaching. This study uses a quantitative descriptive design with a cross-sectional approach. The sample in this study involved 92 rafting athletes who were actively training and competing in West Java. The research instrument used was the Psychological Skills Inventory for Sports–Youth (PSIS-Y). The data were analyzed using descriptive statistics to describe the level of need of the psychological aspect of athletes. The results of the study showed that the motivation aspect was in the very high category with a percentage of 93.76%. The aspect of self-confidence (89.06%), and mental preparation (84.56%) are in the high category. Meanwhile, the aspects of team emphasis (69.92%), concentration (66.52%), and anxiety (60.14%) were in the medium category. These findings show that rafting athletes in West Java have different levels of psychological needs, with motivation, confidence and mental preparation being the most dominant psychological components. Therefore, improvements are needed in the management of team stress, anxiety, and concentration. The results of this research can be used as a basis for the preparation of mental coaching programs that are in accordance with the characteristics of rafting sports.

## How to Cite

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## INTRODUCTION

Rafting, otherwise known as rafting, is one of the sport of achievement that is carried out in the open air with high risk (Radius & Scarpi ,2020). Rafting athletes have to deal with strong river currents, unexpected natural obstacles, and match situations that demand optimal teamwork (Maslivah & Sugiart, 2022). This condition shows that the success of rafting athletes is not only determined by physical and technical ability, but also by the readiness of the psychological aspect in facing pressure and challenges during training and matches, so that the psychological aspect is an important part in the development of rafting athletes (Rallies et al., 2023) .

Rafting is growing rapidly in West Java and has the potential to compete at the national level (Rahayu et al., 2024). However, rafting athlete coaching programs generally still emphasize more on physical and technical aspects, while psychological aspects have not been fully used as a basis for training planning (Ita et al., 2022). Therefore, differences in athlete characteristics, training environments, and competition conditions will arise in the need for various psychological aspects, so the identification of the needs of the psychological aspects of rafting athletes in West Java is important to support more targeted coaching (MacIntyre et al., 2019).

In sports psychology studies, psychological aspects such as motivation, confidence, emotional control, and concentration are seen as factors that affect athlete performance (Putri et al., 2022). Previous studies have shown that athletes with good psychological conditions tend to have a more stable performance and are able to deal with competition pressure more effectively( Wafiiroh et al., 2022). Therefore, most of the previous research has been conducted on conventional sports, while studies that specifically address the need for psychological aspects in extreme sports such as rafting are still relatively limited, so more specific research is needed in this context. (Irwanto & Romas, 2019)

Considering the characteristics of rafting as a sport with a high level of risk and complex psychological demands, the study of the needs of the psychological aspects of athletes in this sport is still relatively limited, especially at the regional level. Therefore, this study aims to analyze the needs of the psychological aspects of rafting athletes in West Java through mapping six psychological aspects using the PSIS-Y instrument. This research is expected to provide an overview of the level of need of the psychological aspect of athletes as a basis for the preparation of mental training programs that are in accordance with the characteristics of rafting sports. In addition, the results of this research are expected to make a scientific contribution to the development of sports psychology studies, especially in the sport of rafting, as well as become a reference for coaches and coaches in improving the quality of athlete coaching as a whole.

## METHODS

This study uses a cross-sectional design, which aims to analyze the psychological aspects for rafting in athletes in West Java. This design was chosen because it is suitable for research that aims to see the actual condition of participants without performing specific interventions or treatments. With this approach, the researcher can identify the psychological abilities of athletes based on the results of the PSIS-Y instrument measurements at the time of data collection.

Participants in this study amounted to 92 rafting athletes who were members of the Indonesian rafting federation (FAJI) West Java which was dominant from the Bandung City Branch Management. Sampling uses purposive sampling techniques based on criteria of consideration that the athlete is in accordance with the research needs.

The instrument used in this study is the Psychological Skills Inventory For Sports-Youth (PSIS-Y) The PSIS-Y instrument consists of 18 statements using a Likert scale of 1–5 which is designed to measure six psychological aspects, namely motivation, confidence, anxiety control, mental preparation, team pressure, and concentration. This instrument has been used extensively in sports psychological research, and the results reveal an adequate six-factor solution that explains almost 55% variance, with a very high internal congruence value of cronbach alpha ranging from 0.829 to 9.916 and the correlation between the six factors not exceeding 0.42 (B. et al., 2019).

This instrument was then adapted to the Indonesian context through the process of translation and language adjustment so that it was relevant to the characteristics of the respondents in this study rafting athletes who experienced various psychological aspects in the sport. The language validation process is carried out by two English experts to ensure that the meanings in the original version and the Indonesian version remain the same. The assessments of the two experts were then analyzed using correlations between assessors. and produces a value of r =

0.798, this value is in the high category, which indicates that the level of agreement between validators is in the good category.

Thus, this instrument is considered to have a fairly good internal consistency and is suitable for primary data collection. After being declared valid and reliable, the instrument was tested on a small number of respondents to assess the readability and clarity of the content of each statement. This readability test aims to ensure that all items can be understood properly according to the context of Indonesian language and culture. The results of the readability test showed that all statements could be understood without requiring substantial revision, so that the instrument was considered to have a good equality of meaning, reliability, and easy to understand by the target respondents. To reduce potential bias, researchers ensure data anonymity and confidentiality, provide consistent filling guidelines, and ensure respondents understand the purpose of the study before filling out the questionnaire.

The implementation of the research began with the preparation of an instrument in the form of a questionnaire containing statements about psychological aspects, using the adaptation of the scale that had been validated in the previous research. The questionnaire was distributed online through Google Form and distributed to athletes who met the research criteria through communication media such as WhatsApp and directly to athletes who conducted the Qualification Round in Bogor Sungai Cisadane on November 17-24, 2025. Before filling in, respondents received a brief explanation of the purpose of the research and the guarantee of identity confidentiality. Data collection lasted for three weeks until all responses were collected, then a completeness check was carried out to ensure that only viable data was included in the analysis. The analysis stage was carried out using IBM SPSS Statistics 22 through the analysis stage was also equipped with priority ranking to determine the order of psychological aspects based on the highest to lowest average scores.

The analysis of descriptive statistical data in this study used the IBM SPSS Statistics version 22 device. Data analysis was carried out to obtain the average score, standard deviation, and percentage of each psychological aspect studied. The results of data analysis are presented in the form of tables and descriptive descriptions to provide a clear picture of the level of need for the psychological aspects of rafting athletes in West Java.

## RESULTS AND DISCUSSION

The results of the analysis were obtained from the calculation of the percentage and average score and standard deviation shown in table 1, 2 and 3. The results table 1 shows the average results of rafting athletes against the psychological factors that are the items in the PSIS-Y instrument. Based on the descriptive analysis test using IBM SPSS Statistics version 22, the results are obtained in the following **Table 1.**

**Table 1.** Descriptive Analysis

| | N | Min | Max | Mean | SD | Category |
|---|---|---|---|---|---|---|
| Motivation | 92 | 7 | 15 | 14.07 | 1.443 | Very High |
| Confidence | 92 | 10 | 15 | 13.36 | 1.531 | Height |
| Anxiety | 92 | 3 | 15 | 9.02 | 3.552 | Medium |
| Mental Preparation | 92 | 7 | 15 | 12.68 | 2.059 | Height |
| Team Emphasis | 92 | 7 | 15 | 10.49 | 2.270 | Medium |
| Concentration | 92 | 3 | 15 | 9.98 | 3.419 | Medium |

**Table 1.** It shows that there is a difference in values in each psychological aspect measured using the PSIS-Y instrument. The motivation aspect has a minimum of 7, a maximum of 12 with an average of 14.07 and a standard intersection of 1,443 which shows a very high category with a relatively homogeneous distribution of scores. The confidence aspect shows a minimum score of 10 and a maximum of 15 with an average of 13.36 and a standard score of 1,531,so it is in the high category. In the anxiety aspect, the score obtained is a minimum of 3 and a maximum of 15 with an average of 9.02 and a standard deviation of 3,552, which is in the medium category with considerable score variation between athletes. The mental preparation aspect has a minimum of 7, a maximum of 15 with an average of 12.68 and a standard deviation of 2,059, which shows a high category, while the aspect of team suppression has a minimum of 7, a maximum of 15, with an average of 10.49 and a standard deviation of 2,270,which is in the medium category. The concentration aspect showed a minimum score of 3 and a maximum of 15 with an average of 9.98 and a standard score of 3,419, which is also in the medium category.

Overall, the order of average scores of aspects of psychological skills from highest to lowest was motivation (14.07), confidence (13.36), men-

tal preparation (12.68), team emphasis (10.49), anxiety (9.02), and concentration (9.98). These results illustrate that motivation is the highest aspect, while concentration is the lowest aspect and has the potential to be the focus of development.

**Table 2.** Descriptive Analysis of the Needs of the Psychological Aspects of Rafting Athletes

| Aspects of Psychology | N | Mean | SD | Category | % |
|---|---|---|---|---|---|
| Motivation | 92 | 14.07 | 1.443 | Very High | 93,76 |
| Confidence | 92 | 13.36 | 1.531 | Height | 89,05 |
| Anxiety | 92 | 9.02 | 3.527 | Medium | 60,14 |
| Mental Preparation | 92 | 12.68 | 2.059 | Height | 84,56 |
| Team Emphasis | 92 | 10.49 | 2.229 | Medium | 69,92 |
| Concentration | 92 | 9.98 | 3.419 | Medium | 66,52 |

Based on the results in **Table 2**, rafting athletes with a total of 92 respondents in this study were 92 athletes. It shows that the needs of the psychological aspect of rafting athletes in West Java vary at different levels between indicators. Athletes have very high motivation with an average of 14.07 and a percentage of (93.76%), followed by confidence (89.05%), and mental preparation (84.56%) which are in the high category. Meanwhile, the emphasis of the team (69.92%), the aspect of anxiety (60.14%) and concentration (66.52%) was in the medium category. This analysis provides an idea that in general rafting athletes have good psychological strength in the aspects of motivation, self-confidence and mental preparation, but still show the need for development in the aspects of team signing regulation, anxiety, and concentration.

**Table 3.** The distribution of athletes is based on scores above and below the average psychological aspect

| Aspects of Psychology | N | Mean | Above average (N) | Below average (N) | Trends |
|---|---|---|---|---|---|
| Motivation | 92 | 14.07 | 68 | 24 | Dominant above average |
| Confidence | 92 | 13.36 | 67 | 25 | Dominant above average |
| Anxiety | 92 | 9.02 | 56 | 36 | Tends to be above average |
| Persiapan_Mental | 92 | 12.68 | 69 | 23 | Dominant above average |
| Penekanan_Tim | 92 | 10.49 | 61 | 31 | Relatively balanced |
| Concentration | 92 | 9.98 | 64 | 28 | Relatively balanced |

Based on **Table 3**, the distribution of athletes shows that out of a total of 92 respondents, in the aspect of motivation as many as 68 athletes have above the average score (Mean = 14.07), and 24 athletes have below the average score so that this aspect shows a dominant tendency above average. The confidence aspect was 67 athletes who had above the average score (Mean = 13.36), and 25 athletes who had below the average score, which also showed a dominant tendency above average. In terms of anxiety, there were 56 athletes who had above average scores (Mean = 9.02), while 36 athletes had scores below average, which indicates that the distribution of scores was relatively variable between athletes

In terms of mental preparation, 69 athletes had above-average scores (Mean 12,680), while 23 athletes had a score below average, so this aspect shows a dominant tendency above average. In the aspect of team emphasis, 61 athletes had an above-average score (Mean 10.49), and 31 athletes had a below-average score, which shows a relatively balanced score distributor. In the aspect of concentration, 64 athletes had an above-average score (Mean 9.98), and 28 athletes had a below-average score, which also shows a relatively balanced distribution tendency.

This study aims to analyze that the needs of the psychological aspects of rafting athletes have a diverse and interrelated character, in line with the needs of sports that have a high level of risk. Rafting athletes must face situations that demand mental readiness to adapt to rapidly changing environmental conditions and strong teamwork. Therefore, the psychological aspect is an important component that cannot be separated from efforts to improve athlete performance and safety, so that the analysis of psychological needs has a strategic role in the coaching process.

The results of the study show that motivation is the highest psychological aspect in rafting athletes in West Java. High motivation reflects a strong internal drive to practice and excel (Moradi et al., 2020). The results of this study are in line with the theory of sports psychology which states that motivation is a key component in retaining athletes, especially in sports that involve many risks and challenges such as rafting (Cajina-Guedeat & Reyes-Bossio, 2021).

The aspects of confidence and mental preparation that are in the high category show that athletes have confidence in their ability to envy and psychological readiness before facing training and competitions (Malureanu et al., 2021). This condition is important considering that rafting requires quick decision-making, cour-

age and mental readiness in the face of unexpected situations. This field data reinforces the results of previous research that stated that confidence and mental readiness play an important role in maintaining the stability of athletes' performance (Jekauc et al., 2025).

The emphasis on teams in the medium category shows that the characteristics of rafting are team sports and teamwork that are not fully optimal from a psychological point of view (Setiawan et al., 2021). This can be influenced by differences in individual characters, match experience, and the intensity of communication between team members. The results of previous research confirm that teamwork in team sports is not only determined by technical aspects, but also by collective psychological readiness, coordination, communication, and cooperation between team members (Mylsidayu, 2024). Therefore, psychological needs related to the team aspect are an important part of coaching rafting athletes.

Meanwhile, the aspects of anxiety and concentration that are in the medium category indicate that there are psychological challenges that still need to be considered, the open environment and dynamic match conditions have the potential to trigger anxiety and reduce the focus of athletes (Sa'adah & Widiyawati, 2025). These results are in line with research on high-risk sports that report that anxiety management and concentration are crucial aspects in supporting optimal performance (Domínguez-González et al., 2024).

Thus, the results of this study contribute in the form of an overview of the needs of the psychological aspects of rafting athletes that can be used as a basis in the preparation of mental coaching programs (Rosli et al., 2022). Coaches and sports coaches can leverage these findings to maintain and strengthen psychological aspects that are already in the high category, such as motivation and confidence, while designing more targeted psychological interventions to improve concentration and manage athlete anxiety (Eccles et al., 2022). From a scientific perspective, this study expands the study of sports psychology in rafting which is still relatively limited, thereby contributing to the development of sports psychology literature in high-risk sports (van Niekerk et al., 2023).

This study has several limitations that need to be considered in interpreting the results. First, this study uses a descriptive design so that it cannot explain the cause-and-effect relationship between psychological variables. Second, data was obtained through questionnaire instruments that relied on the subjective perception of respondents, thus allowing for response bias. In addition, the scope of the sample is limited to rafting athletes in West Java, so generalization of research results to other regions or contexts needs to be done with caution. These limitations may serve as a basis for future research to use more diverse research designs and engage a wider population.

In this study, it is necessary to develop a broader research design, such as examining the relationship between psychological aspects and athlete performance or using a longitunal approach to see changes in athletes' psychological conditions over a certain period of time. In addition, further research is also recommended to involve the population of athletes from more diverse regions and combine quantitative and qualitative methods to gain a deeper understanding of the psychological needs of rafting athletes.

## CONCLUSION

Based on the results of the study, it shows that rafting athletes in West Java have psychological needs that vary in each dimension. Motivation is the most dominant aspect with a high average score and the majority of athletes are above average scores, reflecting the strong internal drive in facing the demands of high-risk rafting, while confidence, and mental readiness are also in the high category which shows the psychological readiness of the athlete is relatively good. On the other hand, team pressure, anxiety and concentration are in the medium category with a varied distribution of athletes. These findings show that mental coaching needs to be directed not only to maintain aspects that have been developed well, but also to improve athletes' ability to manage pressure, anxiety, and focus so that athletes' performance can develop optimally.

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