



## **Basic Psychological Needs and Emotions of Finswimming Athletes During the Training Phase**

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### **Keywords:**

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### **Abstract**

**Background Problems:** Finswimming face high psychological stress due to demands, competition, risk of injury, and challenging aquatic environments. Basic psychological needs and the ability to manage emotions are crucial factors in supporting athletes' mental well-being. **Research Objectives:** This study aims to explore the relationship between the fulfillment of basic psychological needs and emotions of finswimming athletes. **Methods:** The method used is quantitative descriptive using Basic Needs Satisfaction in Sport Scale (BNSSS) and Sport Emotion Questionnaire (SEQ). Subjects involving 30 finswimming athletes at the Shark Aquatic Club. **Results:** The results of the study showed a significant positive relationship between the fulfillment of basic psychological needs and the emotions of finswimming athletes. Data analysis revealed that when athletes' basic psychological needs are well met, they tend to be better able to manage emotions effectively. This indicates that increasing the fulfillment of psychological needs is related to increasing the ability to control emotions. **Conclusion:** This study concludes that there is a significant positive relationship between the fulfillment of basic psychological needs and the ability to manage emotions of finswimming athletes. This means that fulfilling psychological needs supports better emotions during the training phase.

### **How to Cite**

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## INTRODUCTION

Finswimming is known as a diving sport that is developing and in demand in Indonesia. Diving is a movement using a monofin or two fins, either on the surface of the water or underwater. (CMAS, 2019). To swim by accelerating as fast as possible (Made et al., 2025). The difference between the two sports of swimming and diving is in the use of certain equipment, the equipment that must be used is snorkel, bifins and monofins (Budiyana et al., 2021). In the sport of finswimming, there are four techniques, surface finswimming, apnea finswimming, immersion finswimming and bi-fins (Alvionita & Widiawati, 2024). The numbers competed include surface finswimming, apnea finswimming, immersion finswimming, and bifins (Ganeswara, 2018). Finswimming athletes need to have good emotional management skills, because in the training process and competition demands, they experience various challenges that require good emotional conditions.

Emotions are subjective states or sensations that momentarily disrupt otherwise stable functioning with physiological experiences, and sudden and unexpected changes in behavior (Pradnyaswari & Budisetyani, 2018). Emotional aspects are prominent in people's reactions to their emotions, and thus may play a powerful role in shaping emotional experiences and psychological health (Willroth & Young, 2024). An athlete's performance is a result achieved and influenced by several factors, one of which is psychological factors. Psychological problems that athletes often face during training and matches include emotional problems (Mudian, 2015). Emotions are related to mood (Kliwon & Sarwanto, 2019). With good skills regarding, understanding and managing emotions effectively, so that it will not interfere with the athlete's concentration (Musyarofah et al., 2024). In reality, athletes often cannot control their emotions and on the other hand, athletes who have good and optimal physical conditions do not always produce optimal performance, if this is not driven by good mental conditions (Azizah & Jannah, 2020). It is important for athletes to regulate their emotions so they know how to manage the emotions they feel (Harta Dvikaryani & Jannah Miftakhul, 2020). Therefore, researchers investigate the antecedents of emotion regulation (such as basic psychological needs fulfillment) and other emotional feelings related to performance. By having psychological abilities as a determining factor that influences the achievement of athlete performance results to increase the athlete's psychological efficiency, es-

pecially when the athlete is in a complex stressful situation (Purnamasari & Novian, 2021).

Athlete psychology is one aspect that must be considered by both coaches and athletes themselves (Febrianty et al., 2021). Psychological abilities in athletes have been believed to be one of the predictive variables of athlete success (Komarudin, Saputra, et al., 2024). Athletes often experience psychological disorders (Bayani et al., 2024). Psychological aims to overcome inner fears related to the upcoming match and determine the mental qualities needed to improve future abilities (Saputra et al., 2022). An athlete's success is influenced by psychological factors (Komarudin, Rismayadi, et al., 2024). Studies suggest that there are two types of psychological aspects that support athlete performance (Sofyan et al., 2024). First, the psychological aspects that underlie achievement, such as strong ambition, self-confidence, and mature personality. Second, psychological aspects that can affect performance, such as anxiety, tension, low self-confidence, emotional turmoil, fear and doubt. The fulfillment of basic psychological needs in athletes is influenced by the interaction of the individual with their social context. Social contexts such as family, work, school, peers can provide opportunities or even hinder individuals from fulfilling their basic psychological needs (Rohinsa, 2023). Psychological aspects play an important role, but are often overlooked in the training process and tend to be given more attention during matches. This is very unfortunate considering that various literature studies have shown that the application of psychological strategies to improve performance in sports has developed and proven significantly over the last few decades (Purnamasari & Novian, 2021).

The relationship between basic psychological needs satisfaction and emotions has not been studied more widely, because the author sees that this topic of study is still not very popular. In fact, these two things make a big contribution to athletes, especially finswimming athletes during the training phase. Thus, the current study aims to fill this gap in the literature by focusing on athletes' perceptions of psychological and emotional needs satisfaction. Basic psychological needs and emotions play an important role in athletes' performance, including finswimming athletes. These psychological needs affect the athlete's motivation and well-being, while emotions impact concentration and mental resilience (Robazza et al., 2023). If this research is conducted, the findings could provide new insights into how having basic psychological needs met can help athletes mana-

ge emotions effectively. This not only improves the athletes' performance but also their psychological well-being. This research has great potential to contribute to the sport psychology and training practices of finswimming athletes.

METHODS

This research uses quantitative descriptive methods. Descriptive research is also research that is conducted with the main aim of providing an objective picture or description of a situation (Purnia et al., 2020). In descriptive research, no treatment or action is taken on the variables to be described. Descriptive research here is addressed in correlation study research, quantitative approachis research that uses data in the form of quantitative numbers, to be able to predict population conditions, or future trends (Mukhid, 2021). The research subjects were 30 finswimming athletes from the Shark Aquatic Club who had more than three years of training experience. The instrument in this study used two questionnaires containing clearly arranged items, so that respondents could fill them out independently (Romdona et al., 2025), namely (1) the Basic Needs Satisfaction in Sport Scale (BNSSS) which is intended to assess competence, autonomy-choice, perceived internal locus of causality, volition, and relatedness and (2) the Sport Emotion Questionnaire (SEQ) which measures the intensity of athletes' precompetitive anxiety (Robazza et al., 2023). Subjects filled out the questionnaire once via Google Form. Data analysis was carried out by presenting the percentage of results to determine whether or not there was a significant relationship between the basic psychological needs and emotions of finswimming athletes.

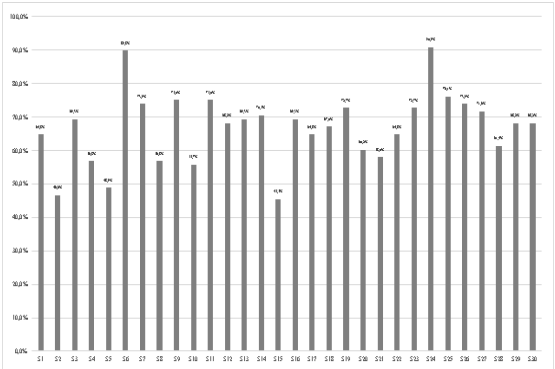
RESULTS AND DISCUSSION

The research results were obtained through statistical data calculations using SPSS (Statistical Package For The Social Sciences) (Elzati, 2024). After that, the results of the quantitative data analysis are presented in the form of **Table 1. Table 2. Table 3. Figures 1. Figure 2. Figure 3**

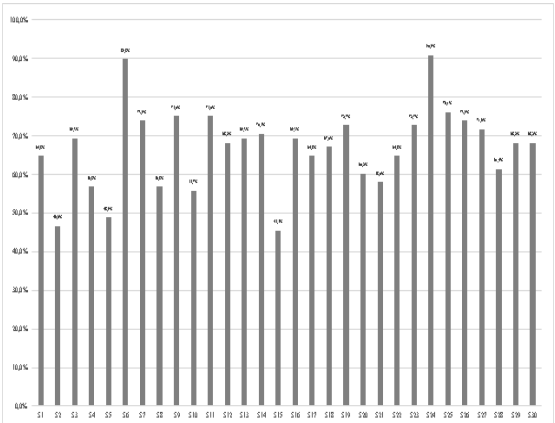
**Table 1.** Statistical Description

| Variable                  | N  | Min. | Max. | Sum  | Mean  | Std. Dev. |
|---------------------------|----|------|------|------|-------|-----------|
| Basic Psychological Needs | 30 | 82   | 116  | 2923 | 97.43 | 7.722     |
| Emotions                  | 30 | 40   | 80   | 1765 | 58.83 | 9.293     |

**Table 1** shows the statistical description of the 30 research subjects involved. Based on the Table, it can be seen that in Basic Psychological Needs the minimum value is 82, the maximum value is 116, the total value is 2923, the average value is 97.43, the standard deviation value is 7.722. Meanwhile, in Emotion, the minimum value obtained was 40, the maximum value was 80, the total value was 1765, the average value was 58.83, and the standard deviation value was 9.293. Next, the author presents the results of measuring the basic psychological needs and emotions variables of each finswimming athlete in the training phase, which can be seen in **Figure 1 and Figure 2**.



**Figure 1.** Percentage of Basic Psychological Needs Each Finswimming Athletes in the Training Phase



**Figure 2.** Percentage of Emotions Each Finswimming Athletes in the Training Phase

Based on **Figures 1 and Figure 2**, it can be seen that each finswimming athlete involved as a subject of this study has different percentage values of basic psychological needs and emotions. This indicates that finswimming athletes in the training phase still need to pay attention to their basic psychological needs and emotions in the training phase, so that psychologically athletes can accept and undergo the training process

better. Next, the author presents the results of the normality test in **Table 2**.

**Table 2.** Normality Test

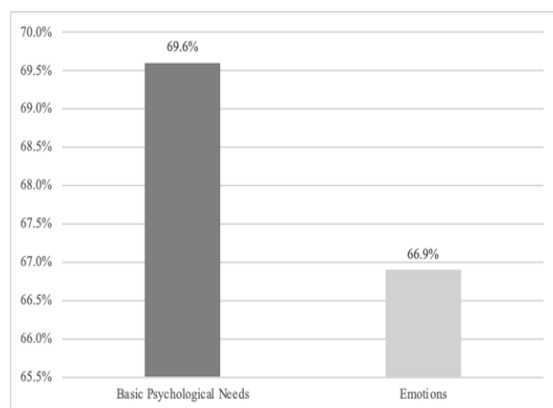
| Variable                  | Statistic | df | Sig. |
|---------------------------|-----------|----|------|
| Basic Psychological Needs | .978      | 30 | .760 |
| Emotions                  | .953      | 30 | .199 |

Based on **Table 2** showing the results of the data normality test using the Shapiro-Wilk technique, it can be seen that the results of Basic Psychological Needs show a statistical value of 0.978, df of 30, significance value of 0.760. Meanwhile, for the results of Emotion, the statistical value obtained was 0.953, df was 30, and the significance value was 0.199. Two data have a Sig. value  $> 0.05$ , so the data is said to be normally distributed. Next, the author presents the results of the hypothesis test in **Table 3**.

**Table 3.** Hypothesis Testin

| Variabel                             | Pearson Correlation | N  | Sig. (2-tailed) |
|--------------------------------------|---------------------|----|-----------------|
| Basic Psychological Needs - Emotions | .391                | 30 | .033            |
| Emotions                             | .953                | 30 | .199            |

**Table 3** shows the results of the hypothesis test using Pearson correlation to determine the relationship between the two variables studied. The correlation value obtained was .391 with a significance of .033. It is stated that there is a significant relationship between the basic psychological needs of athletes and the emotions of finswimming athletes during the training phase. Next, the author presents the percentage of the level of basic psychological needs and emotions of finswimming athletes in the training phase, which can be seen in **Figure 3**.



**Figure 3.** Percentage of Basic Psychological Needs and Emotions of Finswimming Athletes in the Training Phase

**Figure 3** shows the percentage of basic psychological needs and emotions level of finswimming athletes in the training phase. It can be seen that the level of basic psychological needs of finswimming athletes in the training phase is 69.6%, while the emotional level of finswimming athletes in the training phase is 66.9%. This shows that these two variables are interrelated for finswimming athletes.

The study conducted provided results that basic psychological needs have a significant relationship with the emotional level of finswimming athletes during the training phase. Data shows that when basic psychological needs are met, athletes are better able to control their emotions. This can happen because basic psychological needs are positively related to increasing enjoyment in training, while reducing negative emotions such as anxiety (Feng et al., 2023). When athletes feel capable, autonomous, internally motivated, and socially connected, they tend to experience more positive emotions such as enthusiasm and confidence, and are better able to manage negative emotions such as anxiety (Keller et al., 2024).

Emotion is defined as the arousal of feelings accompanied by changes in the body, such as muscle tension and rapid heart rate (Sukadiyanto, 2015). An athlete's emotional level will change over time and is very dependent on the mental pressure the athlete is facing at that time (Effendi, 2016). If someone faces a situation that makes them uncomfortable, then negative emotions such as frustration and anxiety will arise and can hinder performance if not managed properly. Therefore, it is important to create a training environment that supports the psychological needs of athletes, so that positive emotions can drive success in the preparation stage for competition (Fierro-Suero et al., 2022). Athletes' emotions during training are influenced by various factors, including emotional support from the coach. Such as creating a positive environment, being sensitive to athletes' needs, and valuing their perspectives, can increase positive emotions such as happiness and pride, and reduce negative emotions such as anxiety. In addition, the fulfillment of basic psychological needs (valuing Competence, autonomy-choice, perceived internal locus of causality, will, and relatedness) plays an important role in influencing athletes' emotions during training (Alrabai & Algazzaz, 2024).

The emotional instability of athletes will result in psychological instability and their mental state will become shaky, unstable and they will often change their stance (Effendi, 2016). In this



way, athletes should be able to control their emotions to remain stable (Safitri & Jannah, 2020). Because athletes already know how to control their emotions by fulfilling basic psychological needs in facing challenges (competence) and having the freedom to make decisions (autonomy-choice), they tend to experience more positive emotions such as happiness and satisfaction. Perceptions of internal control (internal locus of causality) and intrinsic motivation will help reduce negative emotions such as anxiety and boredom by increasing feelings of personal responsibility and involvement. A sense of social connectedness provides important emotional support (Gordeeva & Sychev, 2024).

The fulfillment of these psychological needs affects the motivation and psychological well-being of athletes (Robazza et al., 2023). Psychological well-being is the realization of an individual's potential, which includes the individual's ability to accept all of his or her own strengths and weaknesses, to have independence, and to be able to establish positive relationships with others (Fauziah & Arjanggih, 2021). Thus, fulfilling psychological needs not only improves the mental well-being of athletes, but also in controlling emotions, thus supporting optimal performance in training and competition. Studies show that finswimming athletes in the training phase tend to be able to control their emotions well so that they are not easily distracted by other things and think optimistically, feeling confident in their abilities (Maharani & Nurcahyo, 2024). In other words, the more basic psychological needs are met, athletes tend to be better able to control negative emotions such as anxiety and experience more positive emotions, thus supporting their performance during training.

## CONCLUSION

This study concludes that there is a significant positive relationship between the fulfillment of basic psychological needs and the ability to manage emotions of finswimming athletes during the training phase. This study indicates that psychological needs fulfillment supports better emotions during the training phase, where athletes with fulfilled psychological needs tend to be better able to control negative emotions and increase positive emotions. These findings reinforce the importance of a holistic approach to training that focuses not only on the physical, but also the psychological aspects of the athlete. Studies suggest that coaches should pay more attention to meeting athletes' psychological needs by providing space for autonomy, competence-building

feedback, and creating a supportive team environment. Sports institutions are also advised to provide psychological support programs to optimize athlete performance. For further research, studies with larger subjects and a variety of sports need to be conducted to strengthen the generalizability of the findings. Thus, a basic psychological needs-based approach can be an effective strategy in controlling emotions and improving athletes' well-being.

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