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RESEARCH ARTICLE

Burnout Among Badminton Athletes Amid Competition Schedule Uncertainty Following Flash Floods in Aceh

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ABSTRACT

This study aims to describe the level of mental burnout among badminton athletes participating in the Pre-Pora competition as a result of schedule uncertainty following the flash floods in Aceh. Schedule uncertainty has the potential to cause psychological stress that can affect athletes' mental readiness, motivation, and performance. This study used a descriptive quantitative approach with total sampling technique on 15 badminton athletes who were undergoing Pre-Pora preparation. The research instrument used the Athlete Burnout Questionnaire (ABQ) with a 1–5 Likert scale covering indicators of emotional exhaustion, reduced sense of accomplishment, and devaluation of sports. Data analysis used mean calculations and level categorization based on Azwar's formula. The results showed that the average mental fatigue score of athletes was 34.06, which was in the low category. In percentage terms, 53% of athletes were in the low mental fatigue category, 47% were in the moderate category, and no athletes were in the high category. These findings indicate that despite the uncertainty of the competition schedule, the psychological condition of the athletes was generally still within controllable limits, but almost half of the respondents began to show symptoms of moderate mental fatigue.

KEYWORDS

Athlete burnout; competition schedule uncertainty; sport psychology; flash floods; badminton athletes

1. Introduction

Nevertheless, Competitive sports are activities that demand optimal physical, technical, tactical, and psychological readiness. One important psychological aspect in the context of sports is the mental readiness of athletes in facing competition. This readiness is not only influenced by the intensity of training and the quality of coaching, but also by the certainty of the competition schedule, which serves as a

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reference in the preparation of training programs, the setting of performance targets, and the formation of psychological conditions ahead of the competition (Bin Ilyas & Awal, 2025).

Mental readiness does not develop instantly, but is the result of a structured, consistent, and competitive goal-oriented training process. This process is influenced by various factors, including the intensity and quality of training, coaching patterns, competition experience, social support from the environment, and a planned competition management system (Nurfauziyah & Hambali, 2025). In this context, the competition schedule holds a very strategic position as it serves as the primary reference for designing training periodization, determining *the* peak performance phase, and adjusting training loads to align with competition targets.

However, this ideal condition can be disrupted if there are changes or uncertainties in the competition schedule. The flash floods that hit Aceh have had a significant impact on various aspects of people's lives, including disrupting athletes' preparations for the Aceh Sports Week (*Pra Pora*). The postponement and uncertainty of the schedule due to this disaster has become an additional stress factor for athletes who had previously prepared intensively for the competition (Parwata, 2015).

The uncertainty of the competition schedule creates an unstable situation in training planning and performance targets. Athletes are required to maintain their physical and mental condition in a situation where the timing of the competition is uncertain. In the short term, this condition can cause anxiety and psychological pressure. In the long term, continuous pressure has the potential to develop into mental burnout.

Mental burnout is a psychological condition characterized by a decline in cognitive, emotional, and physical performance due to prolonged exposure to stress (Parwata, 2015). In the context of sports, mental burnout can interfere with concentration, motivation, decision-making quality, and overall athlete performance. Athletes experiencing burnout tend to exhibit symptoms of emotional exhaustion, a diminished sense of accomplishment, and the emergence of negative attitudes toward the sport they are engaged (.

Previous research shows that uncertainty in competition schedules can increase athletes' stress and anxiety levels, which ultimately contributes to mental fatigue. Post-disaster situations, such as those in Aceh, can exacerbate these conditions because athletes face not only competition uncertainty but also other potential

social and emotional pressures. Schedule uncertainty also has the potential to disrupt training periodization, *peak performance* setting, and athletes' short- and long-term goals.

Although the phenomenon of competition postponement due to disasters is not new, empirical studies on the impact of schedule uncertainty due to disasters on athletes' mental fatigue levels are still relatively limited, especially in the context of regional sports such as Aceh. Based on this description, a gap can be identified between the demands of athletes' mental preparedness and the uncertainty of competition schedules caused by disasters. This uncertainty has the potential to cause emotional pressure, decreased motivation, concentration disorders, and mental fatigue that can affect athletes' performance readiness in facing competitions.

2. Method

This study uses a descriptive quantitative approach. The research population consists of all 15 badminton athletes participating in the Banda Aceh Pre-Pora. The sampling technique used *total sampling*, so that the entire population was used as the sample.

The population is the entire data set that is the main focus of the researcher (Abdullah, 2015). The population in this study is all active badminton athletes in Banda Aceh preparing for the Pre-Pora. The population size is 15 athletes. This study used total sampling, where all members of the population were used as the research sample, because the population size in this study was relatively small and could be reached in its entirety. Thus, the sample in this study consisted of 15 badminton athletes.

The data collection technique in this study used a questionnaire as the main instrument to obtain data on the level of mental fatigue (mental burnout) experienced by athletes after the uncertainty of the Pre-Pora schedule following the flash floods in Aceh. The data collected included indicators of Athlete Burnout, such as cognitive fatigue, emotional fatigue, decreased motivation, difficulty concentrating, and feelings of boredom during the competition preparation period.

The data collection tool was a closed questionnaire compiled based on the research variable indicators using a Likert scale. The questionnaire was distributed

online via Google Form to facilitate the filling process, expand the range of respondents, and increase efficiency and accuracy in data collection.

The instruments used were the Multidimensional Perfectionism Scale (MPS) and the Athlete Burnout Questionnaire (ABQ). 12 This study was based on indicators of mental fatigue (mental burnout) experienced by athletes during the competition preparation process under conditions of uncertainty regarding the schedule for the Pre-Pora competition after the flash floods in Aceh. The indicators measured include emotional exhaustion, reduced sense of accomplishment, and devaluation of sports. The instrument uses a Likert scale with a score range of 1–5.

The collected data were entered into a data collection table and then analyzed using formulas appropriate to the data obtained. The data were then analyzed using a level categorization formula as described by Azwar (2021) to classify the research subjects into levels and then calculate the mean and percentage.

3. Results

The results of this study aim to describe the level of mental fatigue (burnout) experienced by Prapora Banda Aceh badminton athletes due to the uncertainty of the Prapora schedule after the flash flood. The analysis of data on the level of mental fatigue of *Pra Pora* Banda Aceh badminton athletes was conducted using a level categorization technique based on a theoretical score distribution approach. The instrument used consisted of 15 statements with a 1–5 Likert scale, so that the minimum and maximum scores could be calculated theoretically.

Determination of Theoretical Score Parameters

The theoretical score range was determined as follows:

- Maximum range = highest score × number of items = 5 × 15 = 75
- Minimum range = lowest score × number of items = 1 × 15 = 15

Therefore:

- Range = 75 – 15 = 60
- Standard deviation (σ) = 60 / 6 = 10
- Theoretical mean (μ) = (75 + 15) / 2 = 45

Based on the theoretical mean and standard deviation values, the categorization of mental fatigue levels is determined using the formula:

- $X < (\mu - 1\sigma) \rightarrow$ Low Fatigue

- $(\mu - 1\sigma) \leq X < (\mu + 1\sigma) \rightarrow$ Moderate Fatigue
- $(\mu + 1\sigma) \leq X \rightarrow$ High Fatigue

By substituting $\mu = 45$ and $\sigma = 10$, the category boundaries are as follows:

- Low: $X < 35$
- Moderate: $35 \leq X < 55$
- High: $X \geq 55$

Table 1. Response Result Elements

No	Respondent	Data	Category
1	A	28	Low
2	B	38	Moderate
3	C	39	Moderate
4	D	40	Currently
5	E	22	Low
6	F	34	Low
7	G	34	Low
8	H	31	Low
9	I	23	Low
10	J	34	Low
11	K	35	Low
12	L	42	Moderate
13	M	36	Moderate
14	N	40	Moderate
15	O	35	Moderate
	Total Score	511	

Calculating the average score:

$$\bar{X} = \frac{\sum x}{N}$$

$$\bar{X} = \frac{511}{15}$$

$$\bar{X} = 34{,}06$$

The average score of 34.06 is below the threshold of 35, so overall the mental fatigue level of the *Pra Pora* Banda Aceh badminton athletes is in the low category**.** These findings indicate that, in general, the athletes' psychological condition is still

under control despite facing uncertainty in the competition schedule after the flash flood (Table 1).

Category percentage analysis:

$$P = \frac{F}{n} x100\%$$

Table 2. Summary of percentage calculation results

No.	Category	Frequency	Percentage
1	Low	0	0
2	Moderate	4	14.81
3	High	23	85.18%
	Total (∑)	27	99.99%

Based on the category distribution analysis in Table 2, the majority of athletes (53%) were at a low level of mental fatigue. However, the proportion of athletes in the moderate category was quite significant, at 47%. This shows that almost half of the respondents showed symptoms of moderate mental fatigue. The absence of a high category indicates that the uncertainty of the Pre-Pora schedule after the flash flood has not triggered severe burnout. However, the relatively large percentage in the moderate category indicates the existence of real psychological pressure, particularly in the form of emotional fatigue, decreased motivation, and potential concentration disorders.

Overall, the mental condition of the athletes is still within controllable limits, but requires preventive attention so that it does not develop into a high level of burnout if the uncertainty lasts longer. From the above percentage results, the lowest score was achieved by 8 athletes, while the moderate category was achieved by 7 athletes. This can be seen more clearly in the image below.

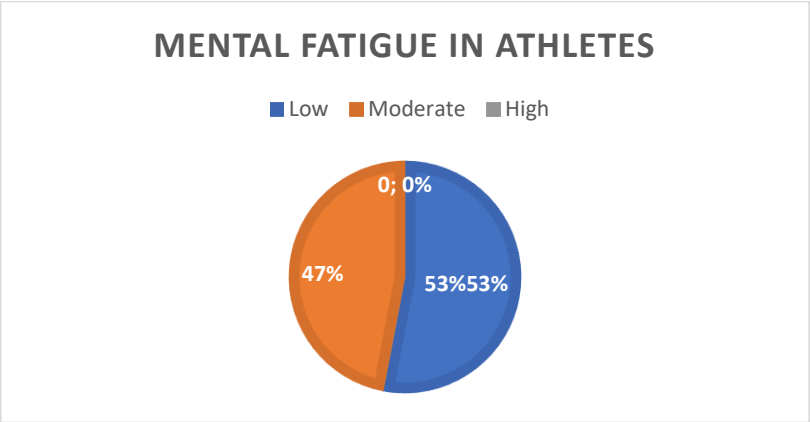

Figure 1. Percentage of Mental Fatigue Among Badminton Athletes in Banda Aceh

Based on Figure 1, the mental fatigue level pie chart, it can be seen that most athletes fall into the low mental fatigue category, accounting for 53%. Furthermore, 47% of athletes are in the moderate mental fatigue category. This percentage is quite large and indicates that almost half of the athletes are beginning to experience signs of mental fatigue. Meanwhile, no athletes were found to be in the high mental fatigue category (0%). These findings show that, in general, the psychological condition of the athletes is still within relatively controlled limits and has not led to severe *burnout*.

4. Discussion

The results show that the majority of *Pra Pora* Banda Aceh badminton athletes are in the low mental fatigue category. This condition indicates that despite the uncertainty of the *Pra Pora* schedule after the flash flood, in general, athletes are still able to manage the psychological pressure they face. However, the percentage of athletes in the moderate mental fatigue category is quite large, namely almost half of the respondents. This shows that the uncertainty of the competition schedule still has a psychological impact in the form of emotional fatigue, decreased motivation, and concentration disorders in some athletes. These findings are in line with the opinion of Maslach & Leiter (2016), who stated that burnout in sports arises as a response to prolonged stress and unstable competitive demands. The uncertainty of the Pre-Pora schedule after the flash flood has the potential to disrupt training plans, performance targets, and athletes' mental readiness. Athletes are required to maintain their physical and mental condition in uncertain situations, which over a

certain period of time can trigger moderate mental fatigue (Furqan et al., 2025; Hidayat & Saputra, 2024). The absence of athletes in the high mental fatigue category indicates that the training system, coaching support, and training environment still function as protective factors in maintaining athletes' psychological stability (Akbar et al., 2026). However, themoderate mentalfatigueexperienced by some athletes requires attention to prevent it from developing into more severe burnout.

5. Conclusion and Recommendations

Based on the results of the study and discussion regarding the level of mental fatigue (mental burnout) of *Pra Pora* Banda Aceh badminton athletes due to schedule uncertainty after the flash flood, it can be concluded that in general, the athletes' mental fatigue level was in the low category with an average score of 34.06. This indicates that the athletes' psychological condition was still relatively stable despite facing uncertainty regarding competition.

The category distribution shows that 53% of athletes are at a low level of mental fatigue and 47% are in the moderate category, with no athletes found in the high category. These findings indicate that although severe burnout has not yet occurred, nearly half of the athletes have shown early symptoms of mental fatigue, particularly in the form of emotional exhaustion and decreased motivation.

The uncertainty of the Pre-Pora schedule after the flash flood has proven to have a psychological impact on some athletes, but the presence of coach support, a conducive training environment, and the athletes' self-regulation abilities act as protective factors in preventing high levels of burnout. Given the previous results, it is recommended that coaches closely monitor the psychological condition of athletes, adjust training programs with flexibility, and provide ongoing emotional support and motivation to prevent mental fatigue from developing into more serious burnout. In situations of competition uncertainty, athletes are encouraged to maintain open communication with coaches and teammates, maintain a balanced training and rest schedule, and improve stress management skills through constructive coping mechanisms. Sports officials and related organizations should ensure clear and open communication regarding competition schedules. They are also advised to consider providing psychological support services, especially in situations that can exacerbate athletes' mental stress after a disaster. Further

investigation into other factors contributing to athletes' mental fatigue, such as social support, competition experience, psychological resilience, and coping mechanisms, is recommended using

Conflict of interest

The authors state that they have no conflicts of interest related to this publication.

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