



Analysis of Sport Emotion: Anger in Team Game Sports and Martial Arts

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Abstract

The purpose of this study is to investigate the differences in anger levels between athletes engaged in team game sports and those involved in martial arts. This research employs a quantitative approach using a causal-comparative method to explore emotional differences based on the type of sport. The population consists of athletes who participated in the 2018 West Java Provincial Sports Week (Porda). A purposive sampling technique was applied to select a total of 60 athletes, with 30 athletes representing team game sports (18 volleyball players and 12 basketball players) and 30 athletes from martial arts disciplines (18 karate practitioners and 12 taekwondo practitioners). Data were collected using the Sport Emotion Questionnaire (SEQ), which is designed to measure emotional responses in a competitive sports setting. The results reveal a significant difference in anger levels between the two groups. Specifically, martial arts athletes reported higher levels of anger compared to their counterparts in team sports. This finding suggests that the nature of individual competition and direct physical confrontation in martial arts may contribute to heightened emotional arousal, particularly anger. Meanwhile, athletes in team sports, who rely more on collective strategies and communication, may experience anger differently. These insights highlight the importance of emotional regulation strategies tailored to the specific demands of each sport.

Keywords: anger, emotion, martial arts, team game sports



INTRODUCTION

Emotion is one of the key aspects that influence an athlete's performance in sports. Emotions can effect performance, depending on the athlete and the type of sport (Jones, M. V., 2003). Sport emotion is a term that describes the emotions that arise during sports competition. There is sufficient empirical evidence to suggest that at least five emotions are particularly relevant to sport settings ... the emotions are anger, anxiety, dejection, excitement, and happiness (Jones, et al., 2005).

There are eight basic emotional dimensions, arranged in four pairs: joy versus sorrow, anger versus fear, acceptance versus disgust, and surprise versus expectancy (Mason & Capitanio, 2012). Among the various emotions that arise, anger is one of the most common emotions, especially in the context of competition and sports training. Anger is a frequent emotion in sport (Steffgen, 2017). This emotion can affect an athlete's performance both positively and negatively, depending on how the individual manages and expresses it.

In the context of sports, anger is often influenced by factors such as competition pressure, conflicts between players, or dissatisfaction with one's own or the team's performance. Anger is an emotion experienced by athletes in competition, and could impact performance (Jones, et al., 2005). If not managed properly, anger can disrupt performance, leading to loss of self-control, excessive aggression, or consequences that negatively affect both oneself and others. However, some studies suggest that negative emotions, including anger, can enhance an athlete's energy and focus in certain situations.

Previous research has revealed that physical contact sports such as martial arts always involve anger emotions. Athletes involved in physical contact sports often interpret their competitive anger as beneficial to sports performance (Steffgen, 2017). How about other types of sports, such as team game sports, where the pressure and responsibility are not solely dependent on the individual, but are instead shared among the members of the team? If viewed from the characteristics of individual sports, the sense of responsibility of victory is determined by each of

them not by anyone, even the coach is only as an outside media that helps improve performance (Palgunadhi, F., &

Kardjono, K, 2020). This is an important point to consider, as different types of sports may also lead to variations in sports emotions.

Therefore, it is important to provide evidence regarding whether there is a difference in the level of sports emotion, particularly anger, experienced by athletes when facing competition in team game sports and martial arts. Does team sports have the same impact on anger, considering that in this type of sport, the pressure and responsibility are shared among multiple individuals working together within a team? Meanwhile, in martial arts, athletes compete individually, engage in physical contact, and may experience heightened emotional arousal as a result. This study aims to determine the extent of the difference in sports emotion (anger) levels between team game sports and martial arts. The hypothesis of this study is that there is a difference in sports emotion (anger) between team game sports and martial arts.

This study is expected to reveal how the characteristics of both types of sports (team game sports vs. martial arts) affect athletes' levels of anger and provide insights into the utilization or management of anger so that it does not interfere with athletes' performance in competition, but rather enhances their performance.

METHODS

The research method used is causal-comparative with a quantitative approach. In causal-comparative research, investigators attempt to determine the cause or consequences of differences that already exist between or among groups of individuals (Fraenkel, J. R., Wallen, N. E., & Hyun H. H., 2012). This research was conducted from October 6 to October 14, 2018. The research was conducted at the location where each sample was situated, or at the venue before the competition.

Research Design

The research design used in this study is the basic causal-comparative design. The basic causal-comparative design involves selecting two or more

Figure 1
The Basic Causal-Comparative Design

| Group | Independent Variable | Dependent Variable |
|-------|------------------------|--------------------|
| I | C1 Team Game Sports | O Anger |
| II | C2 Martial Arts | O Anger |

groups that differ on a particular variable of interest and comparing them on

another variable or variables (Fraenkel, J. R., Wallen, N. E., 2007). No manipulation is involved. The research process is carried out in one stage, which involves administering the test to the two specified groups. The result of the test is to assess the differences between the two groups. The research design of the basic causal-comparative design can be seen in [Figure 1](#).

In this research design, there are two independent variables and one dependent variable. The independent variables in this study are team game sports and martial arts, and the dependent variable is anger.

Participants

The population in this study were athletes registered as players at the Regional Sports Week of West Java in 2018. The sampling technique used in this research is purposive sampling, which is a method of selecting samples based on specific criteria or considerations. For experimental and causal-comparative studies, we recommend a minimum of 30 individuals per group (Fraenkel, J. R. & Wallen, N. E., 2007).

Sample was 60 West Java athletes divided into 2 groups, each of 30 athletes for team game sports (18 volleyball athletes, 12 basketball athletes), and 30 martial arts athletes (18 karate athletes, 12 taekwondo athletes).

Instrument

The research instrument used in this study is the Sport Emotion Questionnaire (SEQ). The instruments used was Sport Emotion Questionnaire (SEQ) developed by Jones, et al. (2005) is a validated instrument for measuring emotions that occur in sports (before the competition).

Procedure

The research procedure begins with testing the validity and reliability of the instrument. Out of the 22 statements, 20 items were found to be valid, and 2 items were invalid, with a reliability level of 0.864. Therefore, 20 valid items were selected to be used in the research.

After the instrument has been validated and shown to be reliable, the next step is to test it to the sample. The sample is given the test shortly before the competition begins.

Data Analysis

The data obtained from the sample were analyzed using SPSS version 20. An independent samples *t*-test was performed to determine whether there were significant differences in anger levels between participants engaged in team game sports and those involved in martial arts.

RESULT

Descriptive analysis was conducted to examine the overall level of anger among participants involved in different types of sports. As shown in Table 1, the average anger score across all participants ($N = 60$) was $M = 1.21$, with a standard deviation of 0.93. The minimum score was 0.00, and the maximum was 3.75, indicating a wide range of reported anger levels.

To examine whether there was a significant difference in anger levels between participants in individual game sports and team game sports, an independent samples *t*-test was performed. The results, as presented in [Table 1](#), indicate that participants involved in individual game sports (e.g., martial arts) reported significantly higher anger levels ($M = 1.61$, $SD = 0.87$) than those engaged in team game sports ($M = 0.93$, $SD = 0.63$).

The independent samples *t*-test revealed a statistically significant difference between the two groups, $t(58) = 3.14$, $p = .003$. The effect size was large ($d = 0.85$), suggesting a substantial difference in the level of anger experienced by participants based on the type of sport.

DISCUSSION

The purpose of this study is to determine the level of anger experienced in team game sports and martial arts, specifically before the competition takes place. Sport emotion is an experience that will always be felt in sports, especially during training or when a competition is taking place. The moments just before a competition are when every athlete experiences a mix of emotions within themselves. Anger experienced during the pre-competition phase will be felt by athletes in any sport, regardless of the type or characteristics of the sport. The characteristics of each sport will result in differences both in the athlete's personality and in the athlete's emotions

Table 1

Independent Samples t-test Comparing Anger Between Sports Types

| Variable | Team Game Sport | | Individual Game Sport | | t (58) | p | Cohen's d |
|----------|-----------------|------|-----------------------|------|--------|-------|-----------|
| | M | SD | M | SD | | | |
| Anger | 0.93 | 0.63 | 1.61 | 0.87 | 3.14 | 0.003 | 0.85 |

themselves. This indicates that anger will vary depending on the type of sport.

Based on the results, during the match, anger in martial arts is higher compared to team game sports, this shows that the level of anger in team game sports is lower compared to martial arts. This phenomenon can be explained through several psychological factors and social dynamics that differ between the two types of sports. First, martial arts, which often involve physical contact and one-on-one combat, tend to elicit higher levels of emotional tension. Martial arts athletes not only face their opponents but also must control their emotions in highly intense and high-pressure situations. Anger in this context may arise as a response to provocation, injustice, or failure to overcome the physical and mental challenges faced. This sport demands a high level of concentration and self-control, which often leads to an increase in the intensity of feelings of anger. In contrast, in team game sports, although tension between players can occur, the emotions experienced tend to be more distributed among the team members. Players are more focused on collaboration and team strategy than on direct interactions and personal confrontations with opponents. Therefore, although anger can occur in the context of the game, the level of anger expression in team game sports tends to be lower due to the role of communication and support among teammates.

In addition, another factor that influences this difference is the social and cultural norms present in both types of sports. In many martial arts cultures, anger is often seen as part of the "mental toughness" required to endure highly demanding competition. Athletes involved in physical contact sports often interpret their competitive anger as beneficial to sports performance (Robazza, C., & Bortoli, L., 2007). Anger emotions are used as a reference to increase morale and suppress fear so that it can improve sports performance or performance (Palgunadhi, F., & Kardjono, K., 2020). On the other hand, in team game sports, more controlled emotions are considered more important to maintain harmony and overall team effectiveness. Team sport athletes are more sociotropic than the individual sport athletes (Nia, M. E., & Besharat, M. A., 2010)

The results of this study suggest that understanding the differences in anger between these two types of sports can help coaches and sports psychologists design more effective strategies for managing athletes' emotions and enhancing their performance. Therefore, it is important to implement appropriate interventions based on the type of sport the athlete participates in, taking into account the unique characteristics of each discipline.

The factors of gender and age may also influence an individual's level of anger. Anger was associated with more interfering thoughts only in younger athletes (McCarthy, P. J., Allen, M. S., & Jones, M. V., 2013). It is hoped that future research will consider the aspects of gender and age of athletes.

CONCLUSIONS

It can be concluded that anger levels differ between team game sports and martial arts, with martial artists exhibiting higher levels of anger. This could be influenced by the individual nature of martial arts, which emphasize direct physical confrontation and self-discipline. Future research should explore factors such as gender and age to provide deeper insights into the psychological aspects of anger in different sports contexts.

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