The differences in Papuan elite athletes in the anxiety perspective

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ABSTRACT

Anxiety is believed to be an important psychological dimension in determining the outcome of sport matches. However, studies examining this aspect of Papuan elite athletes have never been conducted. Therefor, this study aims to reveal the differences in the anxiety amidst the Papuan elite athletes in terms of sport and gender. Furthermore, the comparative research method used involves six sports with different characteristics, namely game, martial arts, and accuracy. Subsequently, a total of 100 athletes in the PON XX preparation training camp are involved, with about 39 in the game (M= 19, F= 20), 32 in martial arts (M= 18, F= 14), and 31 in the accuracy sport (L = 14 P = 17). Furthermore, the Sport Anxiety Scale-2 (SAS-2) is used as an instrument for data collection on athlete's anxiety. Research data collection is carried out during the COVID-19 pandemic, so that the distribution of research instruments is carried out online using the google form. The research data are analyzed using descriptive and ANOVA techniques using the IBM SPSS program version 26. The results show that (1) there is no difference in anxiety between athletes in the sport of games, martial arts, and accuracy, (2) there is no difference in anxiety between male and female athletes. Although there is no difference, the anxiety that existed in athletes, especially at low and high levels, they need attention from the coach.

Keywords: Sports psychology; anxiety; athlete; Papua; PON

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INTRODUCTION

In the world of sports, the emergence of feelings of anxiety is a condition that is very feared by athletes (Karageorghis & Terry, 2011), because it is estimated that it will disturb the best performance that owned. Therefore, the topic of anxiety is often discussed, especially in the sports psychology literature (Weinberg & Gould, 2015). This shows how important the role of anxiety in athletes' performance is. Karageorghis and Terry (2011) states that anxiety is a natural condition that exists in humans. Every normal person must experience anxiety (Tangkudung & Mylsidayu, 2017). Not much different, Maksum et al., (2011) explained that anxiety is a response to certain threatening conditions and this is normal. Jannah (2016) stated that anxiety is a psychological dimension that is felt by a person and it is commonplace. Although it is believed

to be a normal condition in athletes, Cox (2012) revealed that the emergence of anxiety is a negative response, namely a stress condition due to an excessive burden or pressure borne by the athlete (Herman, 2011).

Generally, by Weinberg and Gould (2015) anxiety is divided into two aspects, namely somatic anxiety and cognitive anxiety. Somatic anxiety is the physiological and physical component of anxiety, while cognitive anxiety is the cognitive component of anxiety (Dimyati, 2018; Mylsidayu, 2018). All types of anxiety must have the above two components (Jannah, 2016). In addition to have the above two aspects, by Spielberger (Tangkudung & Mylsidayu, 2017), anxiety is divided into two types, namely trait anxiety and state anxiety.

In simple terms, trait anxiety can be understood as a predisposition to perceive environmental situations that threaten him (Maksum et al., 2011). When athletes have trait anxiety, the manifestation of anxiety will always be excessive and dominate the psychological aspect, which in turn it will be a serious obstacle for athletes in achieving achievement (Dimyati, 2018; Maksum et al., 2011). Characters of athletes who have trait anxiety include being easy to feel anxious, worried, doubtful, and lacking in confidence (Tangkudung & Mylsidayu, 2017).

In contrast to that, state anxiety is an emotional state in the form of tension and fear that suddenly appears, and it is followed by certain physiological changes (Maksum et al., 2011). State anxiety is an objective state when a person perceives environmental stimuli, in this case the match is something that causes tension or anxiety (Dimyati, 2018; Maksum et al., 2011).

Experts like Correia and Rosado (2018), Singh and Punia (2018), Correia and Rosado (2019) argue that anxiety affects the performance of athletes on the field. Although the outcome of a match is determined by many factors or variables, both internal and external to the athlete, but by Palazzolo (2020), anxiety is believed to be a very important factor in determining the outcome of a match, namely the athletes can come out as a winner or vice versa.

Regarding the construct of anxiety in athletes, other experts state that one of the problems that athletes often face in a competition is the emergence of feelings of anxiety (Kar, 2013; Wohon & Ediati, 2019). In line with that, Vealey (1990) mentioned "All athletes have experienced the physiological and psychological symptoms of anxiety before participating in an important competitive event". This is reinforced by empirical evidence showing that as many as 63% of athletes experience anxiety when facing a match (Kumbara, Metra, & Ilham, 2018). Therefore, it is not surprising that researchers reported that more than 50 athletes who competed in Olympic events consulted with psychologists related to the anxiety they felt (Murphy, 1988).

According to Tangkudung and Mylsidayu (2017) anxiety in athletes is a unique psychological study because important events, either before, during, or at the end of a match are influenced by the athletes' level of anxiety. Anxiety in the context of sports is a feeling of worry, anxiety, and restlessness by considering the game as something dangerous (Weinberg & Gould, 2015). The most dominant element that causes anxiety is the cognitive element, namely worries and negative thoughts that the process and result of the match can threaten the athletes' position (Palazzolo, 2020; Correia & Rosado, 2019).

Although it is often perceived negatively, if anxiety can be managed properly it will have a positive impact on athletes. In fact, at a certain level, the anxiety that athletes have will be able to improve performance (Maksum et al., 2011). When athletes can control anxiety levels at a moderate level, this will result in maximum performance (Karageorghis & Terry, 2011). Anxiety levels at a moderate level will motivate athletes to train and to prepare themselves better. That means, the construct of anxiety becomes interesting to study because it has a direct influence on athletes, whether it is positive or negative. The question then is, has anxiety been widely studied among Indonesian athletes, especially athletes who will take part in the biggest national sporting events, such as at Pekan Olahraga Nasional (PON), considering that discussions about the XX Papua PON are hotly discussed nationally?

Putra and Ita (2019) said that studies on PON athletes have not been widely carried out. Researchers found that studies on anxiety involving PON athletes contained only two documents. First, research conducted by Maulana and Khairani (2017) on athletes from Banda Aceh Province when competing in the

XIX PON. In their study, researchers compared the anxiety levels of athletes based on the type of sport, namely body contact with non-body contact. Second, Ikhsan, Razali, and Rinaldy (2016) which examined descriptively the anxiety of volleyball athletes from Banda Aceh Province who competed in the XIX PON. In addition, there were also articles that examined Papuan PON athletes, but it was not the construct of anxiety that was discussed, but the psychological aspect of the athletes, namely the psychological profile. (Dongoran, Kalalo, & Syamsudin, 2020).

Researchers argue that the two anxiety studies above have some limitations. Maulana and Khairani (2017) only compared the level of anxiety of athletes in the body contact sports group with non-body contact. It was reported by the researcher that there was no difference in the level of anxiety between body contact and non-body contact athletes. This finding is different from the research conducted by Sukadiyanto (2006) who concluded that there were differences in anxiety (emotional reactions) based on the type of sport. The next research to do Ikhsan, Razali, and Rinaldy (2016) limited to one sport branch. It means that there are inconsistencies in the results of studies in previous studies even though the constructs discussed are the same, namely athlete anxiety.

Based on the previous studies conducted on PON athletes (Maulana & Khairani, 2017; Ikhsan, Razali, & Rinaldy, 2016; Dongoran, Kalalo, & Syamsudin, 2020), and there are inconsistent findings even though the constructs studied are the same Sukadiyanto (2006) the researchers consider that it is important to conduct research on anxiety in Papuan elite athletes who are projected to compete in the XX PON by involving several sports and considering the athletes' gender variable. Therefore, this study aims to uncover and to compare the anxiety of elite Papuan athletes based on the type of sport and gender.

METHOD

This research uses a comparative research design (Fraenkel, Wallen, & Hyun, 2012; Ary et al., 2018). There are three groups of categories to be compared. First, the category of sports based on three characteristics of the sport, namely games, martial arts, and accuracy. Second, the gender category group is divided into two, namely male and female. Thus, the selection of the type of comparative research is considered in accordance with the objectives to be achieved in the study, namely comparing the anxiety possessed by athletes based on the characteristics of the sport and gender.

In accordance with the research objectives above, six sports will be taken with purposive random sampling. Through this technique, researchers get basketball (n=20), rugby (n=19), kempo (n=16) and muaythai (n=16), archery (n=20), and shooting (n=11). All Papuan elite athletes who are members of the six sports are currently undergoing TC preparation for the XX PON in Papua. Through this technique, a research sample of 100 Papuan elite athletes is obtained (male = 49; female = 51).

Athletes' anxiety data is taken using The Sport Anxiety Scale (SAS) developed by Smith, Smoll, and Schutz (1990) and then revised by Smith, Smoll, Cumming, and Grossbard (2006). The instrument is widely used to measure the anxiety level of elite athletes at the international level. In SAS-2 there are 15 statement items which are divided into three subscales as presented in table 1.

Table 1. Dimensions of SAS-2

Variable	Subsclae
	Somatic anxiety
Anxiety	Worry
	Concentration disruption

Each subscale in SAS-2 consists of five statement items so that there are fifteen statement items. The alternative answer choices used are 4-point using a Likert scale consisting of Very Often (SS), Often (S), Sometimes (KK), Never (TP). The language adaptation of SAS-2 is carried out by involving linguists and experts in the field of sports psychology. Research data collection is carried out during the COVID-19 pandemic, so that the distribution of research instruments is carried out online using the google form. The google form link is sent to the coach via whatsapp to be forwarded to the athletes. This is done to minimize the spread or infection of athletes with the virus.

The research data are analyzed using descriptive techniques such as the mean, standard deviation, the smallest value, and the largest value. After that, the next analysis uses ANOVA, but before the ANOVA test is carried out, a data requirement test or assumption test such as the normality test (Kolmogorov-Smirnov test) and homogeneity test (Levena test) will be used. All data analysis is performed using the IBM SPSS program version 26.

RESULTS AND DISCUSSION

The results of the study in table 2 show the total number of athletes is 100 (L = 49, P = 51). In the category of sports, the smallest value = 15 while the largest value = 46, the average value = 27.69 with a standard deviation (SD) = 7.85. For the category of martial arts, the smallest value = 17 while the largest value = 50, the average value = 30.37 with a standard deviation (SD) = 9.46. In the sports category, the smallest value of accuracy = 15 while the largest value = 45, the average value = 28.64 with a standard deviation (SD) = 8.36. From this value, it can be seen that the accuracy score for sports is lower than the other two sports categories, namely a minimum score of 15 with an average of 28.64. For martial arts, it appears to have a higher anxiety score, which is a maximum value of 50 with an average value of 30.37. This happens because martial arts have direct fighting characteristics and they are different from the other two sports. Sports games do have physical contact but they are not in the context of combat. Likewise for sports of accuracy, namely there is no direct fighting element as contained in martial arts. Therefore, martial arts tend to produce a higher average score for anxiety.

Table 2. Research Descriptive Results

Sports Category	Gender	Smallest value	Biggest value	M	SD
Game (n=39)	M = 19, F=20	15	46	27.69	7.85
Martial (n=32)	M = 18, F=14	17	50	30.37	9.46
Accuracy (n=31)	M = 14, F=17	15	45	28.64	8.36
Σ N=100	M =49, F=51	M=15	M=50	M=28.64	M=8.5

Note: M=Male; F=Female; M=Mean

After the data are analyzed descriptively, the next step is to test the data requirements, namely the normality test and homogeneity test. The results of the normality test using the Kolmogorov-Smirnov test (KS) find the value of KS = 0.102 ($\rho > 0.05$). With the KS value, it can be stated that the research data is normally distributed. The homogeneity test is carried out using the Levena test (LV) and found the LV value = 0.640 ($\rho > 0.05$), which means the research data is homogeneous. After the research data is declared normal and homogeneous, the analysis is continued with the ANOVA test. Here are the results:

Table 3. Different Test Results

Different test category	F	Sig	Conclusion
Between sports	0.907	0.407	Not significant
Gender	0.613	0.436	Not significant

From the statistical analysis conducted, it is found that for the difference in anxiety between sports (games, martial arts, and accuracy) the results are not significant or in other words there is no significant difference in anxiety levels. There are two arguments in explaining these results. First, the athletes studied are elite athletes in Papua Province who are undergoing the Training Center (TC) program to face the XX PON. It means that all of these athletes have received and are currently receiving training programs, physically, technically, and psychologically (mentally) from their coaches. With these conditions, it is not surprising to find results that it is concluded there is no difference in the level of anxiety between athletes caused by the provision of training programs provided by the respective sports coach teams.

Second, in facing the XX PON, KONI Papua Province seeks to prepare Papuan athletes as well as possible, one of which is to create a Character Building and Achievement Motivation Training (CB-AMT) program with the main aim of forming a winning mentality for Papuan athletes (Ariyanto, 2019). KONI Papua makes a policy that all athletes who enter the TC program are required to take part in the CB-AMT

program (Ratumakin, 2019). This research is conducted after the athletes receive or participate in the CB-AMT program. By looking at these facts, it is very possible that the results of the study are influenced by the character and mental formation program for Papuan athletes that is carried out before this study is carried out. This is evidenced by research data showing that none of the athletes have high levels of anxiety. However, this study is not intended to investigate and to discuss the effect of the CB-AMT program given to Papuan athletes.

The research findings are in line with the study conducted by Singh, Singh, and Singh (2014) that there is no significant difference in the level of anxiety between athletes. Similar results were mentioned by Pristiwa and Nuqul (2018) in his research which found there was no difference in the level of anxiety of athletes in terms of the type of sport (individual and group). Studies conducted Khodayari, Saiari, and Dehgani (2011) also found the same thing, namely there was no difference in the level of anxiety between athletes. Maulana and Khairani (2017) reported in their study that there was no difference in the level of anxiety in Aceh PON athletes based on the type of sport. Although supported by the results of other similar studies, there are also research results that contradict this research.

Research conducted by Correia and Rosado (2019) found that there were significant differences in anxiety levels based on the type of sport. The same thing was found by Sukadiyanto (2006) that there is a difference in the level of anxiety (emotional reaction) based on the type of sport involved (body contact with non-body contact). It means that there are inconsistent empirical facts, where in one study the results show that there are differences in anxiety levels between athletes, but in other studies there are no differences in anxiety levels.

The results of the next study that compared the gender category groups found that there was no difference in the level of anxiety between male and female athletes. This is in line with research conducted by Pristiwa and Nuqul (2018) who found there was no difference in anxiety levels between female and male athletes. Although supported by the studies above, there were also studies that concluded that were different from the findings of this study. Wohon and Ediati (2019) in his study reported that found significant differences between groups of female and male athletes. Correspondingly, Correia and Rosado (2019) reported that there were differences in anxiety between male and female athletes, where female athletes had higher levels of anxiety than male athletes.

Observing the research data obtained, it appears that although there is no difference, female athletes are in the category of "slightly high" anxiety level and there are more of them than male athletes. This is in accordance with the results of research conducted by Correia and Rosado (2019) which shows that more female athletes are at high anxiety levels. In this regard, Myers argues that in general women are more anxious than men (Jannah, 2016). The same thing was said by Smith in Correia and Rosado (2019) that women easily shed tears and worry.

Although the results of this study found that there was no difference in anxiety in athletes, the anxiety conditions that occurred in athletes, especially at high and low levels, they needed attention from the coach. Anxiety felt by athletes, both high and low, is believed to have a negative relationship on athlete performance on the field (Supriyatna et al., 2019). In this regard, Weinberg and Gould (2015) states that athletes who have moderate levels of anxiety will produce better performance than athletes who have high or low anxiety.

It is true that the outcome of a match in sport is determined by many factors, both internal and external, but anxiety is believed to be a very important factor in determining the outcome of a match (Palazzolo, 2020). Several studies suggest that anxiety affects athletes' performance on the field (see for example: Correia & Rosado, 2018; Singh & Punia, 2018; Correia & Rosado, 2019). Several techniques or strategies that can be used to overcome anxiety include self-instruction methods, breathing techniques, relaxation, and other techniques (Maksum et al., 2011; Jannah, 2016).

CONCLUSION

Overall, the results of the study find that (1) there is no difference in anxiety between athletes in games, martial arts, and accuracy, (2) there is no difference in anxiety between male and female athletes. Even

though it has been revealed so far, the research still has limitations such as the data collection method that only uses one instrument and the number of research samples is not large. Therefore, further research should be carried out using several methods or instruments to reveal anxiety and to increase the number of research samples, both sports and athletes.

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CONFLICT OF INTEREST

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