



**FITNESS PROFILE OF MALE ARTISTICS GYMNASTS OF  
PERLIS STATE TEAM**

**WAN MUHAMMAD SYARAFUDDIN BIN W ISHAK  
2017596595**

**BACHELOR OF SPORTS SCIENCE (HONS)  
FACULTY OF SPORTS SCIENCE AND RECREATION  
UNIVERSITI TEKNOLOGI MARA SARAWAK**

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## ABSTRACT

This study aimed to evaluate the fitness level of gymnasts among Perlis state team. A total of N=7 male gymnasts took part as subjects in this study. They were under 18 (n=5) and under 15 (n=2) gymnasts. There were ten tests which consist of all gymnastics fitness components; muscular strength, muscular endurance, flexibility, speed, power, agility and balance. Gymnastics Functional Measurement Tool which was established specifically for the sports-related measurement was utilized as test battery. Results revealed that all the fitness components were similar in distributions between the two age groups ( $p > .05$ ) with U18 has slightly higher except for speed and agility ( $p < .05$ ). The gymnasts have a great isometric strength (shoulder & back), lower body power, core and muscular strength, upper and lower flexibility and balance. However, upper body muscular endurance and speed and agility were poor. Coach is recommended to take concern on this fitness performance to ensure the gymnasts' performance will be improved to win games in future.

**Keywords:** Gymnastics Functional Measurement Tool, Under 15 years old and Under 18 years old

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 BACKGROUND OF STUDY**

Gymnastics is high performance sport which they were divided into eight categories which are; Gymnastics for All, Artistic Gymnastic, rhythmic gymnastics, Trampolining and tumbling, Acrobatic gymnastics, Aerobic gymnastics and Parkour. The Federation of International Gymnastics (FIG) is the governing body for gymnastics worldwide. FIG is the oldest established international federation in Olympic sport. For gymnastics artistic they were two categories contested which are men and women. Male gymnasts need to compete on six events differently that is Floor Exercise, Pommel Horse, Still Rings, Vault, Parallel Bars, and Horizontal Bar (The Federation of International Gymnastics). On the other hand, female gymnasts compete in only four apparatus; Vault, Uneven Bars, Balance Beam, and Floor Exercise (The Federation of International Gymnastics).

In Malaysia the competing is by age limit which they were under 12 years old, under 15 years old, under 18 years old and under 21 years old for Sukan Malaysia (SUKMA). To be an excellent gymnast, a high level of physical fitness and skill is needed to perform gymnastics skills. Speed, strength, endurance, agility, flexibility, balance and power is ability that play role in success competitive gymnast (Sleeper, 2012).

## CHAPTER 2

### LITERATURE REVIEW

This chapter describes and reviews the related journals and articles about gymnastics studies and variables related.

#### 2.1 LITERATURE REVIEW

From the journal Measuring sport-specific physical abilities in male gymnast: the men gymnastics functional measurement tool by mark d. sleeper 2016. So, this journal was developed to establish scoring system for individual test item. By refer Gymnastics Functional Measurement Tool (GFMTM) for female the latest male test and scoring are develop. The problem statement in this journal is there is no reliable and valid test that is specific develop for men gymnast, there is a test that valid but only for female gymnast only. So, writer develop 10 different physical tests combined in and become a test battery for artistic gymnast. The test and retest in this study show a good reliability result where the pre-test is  $R = 0.63$  and the test-retest show  $R = 0.97$ . so, from the reliability value we can say that this test is reliable to use in gymnastics artistic men athlete as an indicator to calculate the physical fitness.

Next journal is the same author, but the title is Measuring fitness in female gymnast: The Gymnastics Functional Measurement Tool (GFMT) 2012. This journal is developed to establish the scoring system for female gymnast. Author state that there is no reliable and valid test specifically develop for women and men gymnast. So, the