BODY PERFORMANCE STANDARDS OF HEALTHY MALAYSIANS: ADULT RANGE OF FITNESS LEVEL

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INTRODUCTION

The use of exercise as a condition from which to investigate bodily function can be dated back to the ancient times of the first Olympic whereby features that was performed by the body were observed and specific training program were devised to foster improvements. For years Malaysian has been depending on the American and the European fitness standards as a guideline for our athletes and fitness health grading purposes. However, we ought to have our own since there are so many differences between us; Asians and them, be it social lifestyles or nutritional intake. This paper presents a preliminary standard of physical fitness by healthy Malaysians from the adult age group as a benchmark.

METHODS

50 subjects (29 females and 21 males) got involved in this research for the adult range of fitness level. This group was from healthy Malaysians age between 21 to 45 years old. The subjects are free from obesity, drug problem, non-alcoholic and non-smoking. The duration of the test accumulates to 12 – 15 minutes per subject depending on individual fitness performance. The test was run once. However subjects who wished to re-take the test were encouraged and the better result of the two will be considered. Six (6) parameters were observed by using the Health Management System (HELMAS II) which include agility, flexibility, muscle endurance, muscle strength, anaerobic power and cardiorespiratory endurance. At the end of the test, based on the results, an exercise prescription will be given out for each subject for them to be able to evaluate their own fitness level and to improve them.

RESULTS AND DISCUSSION

From the preliminary result, it can be observed that the subjects were keen and concerned on their physical fitness performance. Despite having no health related problem, many among them have not exercised regularly. The overall result for both male and female were average as to compare to the known standards given by the HELMAS II system. 40% of the participants have good cardio-respiratory endurance which means they have the good ability to sustain prolonged exercise. However only 35% of them have average muscle strengths. This is probably due to their social background of lack of lifting weights or heavy objects. As for the sitting trunk flexion which represented the flexibility of the body, 58% of them had an average score. While for the sit-up test, the subjects' results was averaged out as poor. This could be due to lack of sit-up exercise or any other muscle endurance exercise. As for the sergeant jump, representing anaerobic power, majority of the participants were ruled as poor. Lastly, about 61% of the participants scored a good reaction time (agility).

From Table 1, it is shown that the female group subjects have a higher agility, flexibility and cardio-respiratory endurance compared to the male group subjects. Meanwhile the male group subjects have a higher muscle strength, muscle endurance as well as anaerobic power. Figure 1, showed one of the female subject's evaluation diagram where it showed that the subject had a very good agility and muscle endurance, average cardio-respiratory endurance, flexibility and muscle strength and finally a poor result on anaerobic power.

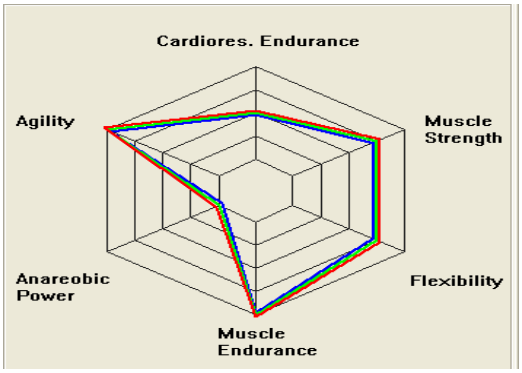

Figure 1: Evaluation Diagram

CONCLUSIONS

Generally, although there are about 21 million Malaysians, this study is a great start of an effort to set our own benchmark in Physical Fitness Performance. More test will be carried out where the standards will be extended to cover all level of age group. A healthy nation is a productive nation, and such test are able to educate the Malaysian people the importance of maintaining a good level of fitness as well as using the standard as a guideline.

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Table 1: Body Performance standards for adult Malaysians

Gender	Body Performance					
	Agility (msec)	Anaerobic Power (cm)	Flexibility (cm)	Muscle Strength (kg)	Muscle Endurance (times)	Cardioresporatory Endurance (ml/kg/min)
Female	248 ± 30	19.3 ± 5.0	9.2 ± 4.0	68.8 ± 10.0	12 ± 3	43.8 ± 8.0
Male	223 ± 30	37.8 ± 3.0	8.0 ± 4.0	110.1 ± 10.0	16 ± 3	42.8 ± 3.0