

Profile of Physical Education Program Students Candidates

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Abstract: The objective of this study is to describe the profile of prospective students of Faculty of Sport Science, Selection of Joint Entry of State Universities (SBMPTN) and Mandiri Line in 2015 and 2016. The research method used were expose facto, data collection using skill test instruments consisting of illionist test, vertical Jump (leg muscle power test), tennis wall pass (eye and hand coordination test), 1 minute push up (arm muscle strength test), sit up 1 minute (abdominal muscle strength test) and 1600 meter run (cardiovascular endurance test). The results of SBMPTN and independent research in 2015-2016, showed excellent agility 6 and 1, 2 and 2, excellent limb muscle power rose 11 to 12, and stand-alone stable 2, eye coordination with excellent hand criteria decreased from 118 to 2, and self-stable 1, abdominal muscle strength in a very good criteria decreased from 811 to 26, and independently rose 10 to 19, the muscle strength of the excellent criteria arm rose from 66 to 68, and independently decreased 50 to 25 and the cardiovascular ability of the excellent criteria decreased from 6 to 1, and independently stable 1. Conclusion of SBMPTN test results and best arm muscle ability, 2015 results of SBMPTN test showing the best prospective student profile.

1 INTRODUCTION

The level of adolescent fitness in Indonesia has not been described holistically or partially, because there are no institutions that manage, such as American Alliance for health, physical education, and dance (AAHPERD), prospective student profiles can be drawn from the cognitive aspect, for the psychomotor and physical aspects. There is no data that can be used as a reference for new admissions, so that the test is held, although the term does not match the component of the test performed, because the measured aspect is the physical aspect.

The characteristic profile of prospective students based on chronological age is in adolescence period, female at intermediate level at Malang volleyball school is average between 14-18 years old, chronological age is adolescence period. According to Sugiyanto (1997) "adolescence period for women is ages 10 to 18 years, men ages 12 to 20 years."

Adolescence is a period of rapid growth, characterized by complex biological developments, including growth acceleration, changes in body shape proportions, changes in body composition, maturation of primary and secondary sex features, development of the respiratory and cardiac system, and development the nervous and endocrine systems that initiate and coordinate bodily, sexual and

physiological changes. Sugiyanto (1997), states "in hot areas (equatorial) tend to be faster the first maturity of reproduction compared with cold areas (north or south)." Esppenchade and Heler (1960), states "Climate is one of the long-term environmental factors that contribute to racial differences. The mean age of menarse (early puberty) of Afro-Americans at age 12.5 years, Europe at age 12.8 years. Asia tends to grow at the same time as Africa, especially in big children. Tempo growth is faster for Africa than Europe in skeletal maturity and development of motion."

Rapid growth is very influential on changes in motion appearance in adolescence, Sugiyanto (1997) states that changes in the appearance of motion tend to follow changes in body size, strength and physiological functions. Differences in the appearance of basic motion skills between the sexes are increasing, boys show a steady increase, while girls show a meaningless increase, even tending to decline after age of menstruation.

Coordination and balance in girls is no longer developed after the age of 14 years while boys still show improvement along with chronological age. In general, the improvement of motion appearance

before adolescence and adolescence has been explained. Sugiyanto (1997), adolescence period has increased the appearance of motion, such as running fast, running long distance, high jump and so on. This quantitative increase is part of the ongoing growth, especially the rapid growth in adolescence, which produces strength and endurance, as well as the contribution of the coordinating element undoubtedly in support of skills.

Adolescence period is a period where humans experience a period of biological and psychological growth, physical growth that goes well in accordance with chronological age is very influential on the appearance of motion. Women also experience growth and increased appearance of motion but are slower and tend to be no increase than men, but should be an important note in giving physical exercise should pay special attention to athletes, taking into account the form of exercise, and the principle of practice. It is recommended that physical exercise during adolescence, especially female exercises using aerobic and anaerobic energy systems, physical exercise is more emphasized on increased cardiovascular endurance due to increased cardiovascular adolence. The adolescence period is an excellent and appropriate time to improve motion abilities, as Sugiyanto et al (1997) points out, adolescence is a great time to improve the ability to perfect the movement, and refine the skills of sporting activities widely. Everyone can learn to assess his abilities and choose exercises, sports, and other useful physical activities throughout his life.

The profile of the average sports student candidate is at the age of 17-18 years into the final adolescence category toward early adulthood, theoretically in this phase of human being growth of height approaching the maximal point, the development of motion has almost experienced maturity, the development of physical condition also increase this phase. So this study is expected to illustrate the profile of prospective students viewed from the point of view of physical conditions and also describes the profile of the late adolescents toward early adulthood.

2 METHODS

This study uses expose facto, independent variables of agility, leg muscle power, coordination, abdominal muscle strength, arm muscle strength and

cardiovascular endurance. dependent variable profiles of prospective sports students

The data collection instrument uses anthropometry, ilionist test, vertical jump, wall pass (hand eye coordination), 1-minute sit ups (abdominal muscle strength), 1-minute push up (arm muscle strength) and run 1600 meters (cardiovascular endurance). Subject of research 1051 prospective sports students, where research at the Faculty of Sport Sciences Universitas Negeri Malang Jalan Semarang No. 5 Malang.

Data analysis technique used in this research is quantitative descriptive analysis technique

3 RESULTS AND DISCUSSION

3.1 Results

The results obtained by instrument data collection using ilionist test, vertical jump, wall pass, 1-minute sit up, 1-minute push up and 1600 meters run.

3.1.1 Agility

Table 1: The agility of prospective sports students.

Criteria	SBMPTN		Independent	
	2015	2016	2015	2016
Very Good	6	1	2	2
Good	0	2	1	1
Average	183	211	102	104
Less	69	56	26	26
Very less	596	514	123	133

3.1.2 Limb muscle strength

Table 2: Power of muscular limb muscle of potential sport students.

Criteria	SBMPTN		Mandiri	
	2015	2016	2015	2016
Excellent	11	12	2	2
Good	121	145	54	58
Average	359	356	133	138
Bad	251	202	55	57
Very bad	116	71	16	18

3.1.3 Hand-eye coordination

Table 3: hand-eye coordination of prospective sport students.

Criteria	SBMPTN		Mandiri	
	2015	2016	2015	2016
Excellent	118	2	1	1
Good	264	22	28	28
Average	272	186	147	150
Bad	140	354	81	88
Very bad	40	223	5	9

3.1.4 Strength of abdominal muscles

Table 4: Strength of abdominal muscles of prospective sport students.

Criteria	SBMPTN		Mandiri	
	2015	2016	2015	2016
Excellent	811	26	10	19
Good	2	231	41	105
Average	20	399	119	114
Bad	17	121	78	34
Very bad	9	12	14	3

3.1.5 Arm-muscle strength

Table 5: Strength of arm muscles of prospective sport students.

Criteria	SBMPTN		Mandiri	
	2015	2016	2015	2016
Sangat Baik	66	68	50	25
Baik	382	234	142	99
Sedang	325	294	61	107
Kurang	87	168	8	44
Sangat kurang	4	19	1	1

3.1.6 Cardiovascular endurance

Table 6: cardiovascular endurance of prospective sport students.

Criteria	SBMPTN		Mandiri	
	2015	2016	2015	2016
Excellent	6	1	1	1
Good	24	32	1	1
Average	122	151	32	35
Bad	187	193	59	61
Very bad	484	384	166	173

3.2 Discussion

3.2.1 Agility

The agility of SBMPTN and Mandiri students in 2015-2016 are shown to be in very good criteria, falling from 6 to 1, and stable 2 independent, this data shows the low agility of new student candidates, whereas agility is a key skill required for football success (Fiorilli, 2017) courses are presented in the curriculum of sports majors, so that will have difficulty and can be assumed with low agility, the performance of football games is also low.

3.2.2 Limb muscle strength

Leg muscle limbs of prospective students of sports in both SBMPTN and Mandiri tracks in 2015-2016 is in very good criteria, rose from 11 to 12, and Mandiri is stable 2, this shows the muscle limb strength of low-potential sports students. If the prospective student becomes a sports student, they will have difficulty, because the average practice course requires good leg muscle power to produce good movement performance. Required proper training (Andre Filipovic, 2016) two-session exercise Electrostimulation Program on Strength dynamic whole body combined with 30 jump squats (12 minutes) simultaneously into 6-7 soccer practice sessions per week and one match is enough to improve strength, running and skipping maximum performance effectively, and kicking skills in professional soccer players.

Increasing the leg muscle power of prospective students need to be improved if they are later accepted to be a sports student candidate, because leg muscle power has a positive correlation to the ability to kick football and sports that require leg muscle power.

3.2.3 Hand-eye coordination

Hand-eye coordination of prospective sport students of track SBMPTN and Mandiri in 2015-2016, decreased in very good criteria from 118 to 2, and Mandiri is stable 1, should the candidate of sports students have good coordination (Sugiyanto, 1997) increased coordination in male students goes hand in hand with increasing the chronological age. The low coordination of prospective students will have an impact on the performance of the sport, one of the swimming courses, because an athlete of a trained swimmer who performs the observations can perform an effective propulsive movement resulting

in higher swimming speeds by adjusting the coordination of the right limb movements with shorter or less sliding glucose or arm action with overlapping legs results in a higher overlap index. (Marek Strzala, 2013)

Motion coordination is an important part of improving motion performance, motion performance is much needed for sports students, because 60% of the sport's curriculum structure is practice.

3.2.4 Abdominal muscles strength

Strength of abdominal muscles of prospective students of sports track SBMPTN and Mandiri in 2015-2017 in very well criteria from 811 to 26, and mandiri track rose 10 to 19, muscle strength should be in line with the maturity of sex hormones in men, (Sugiyanto, 1997) which closely occurs between forces with the release of hormones in men, testosterone hormone has a positive effect on the increase of muscle strength, so it should be in adolescent period of increased abdominal muscle strength in line with the development and maturity of men's secondary sex. This development can be utilized for exercise (Sumiaki Maeo, 2013) abdomen bracing proved to be one of the most effective exercise methods for abdominal muscles although compared to dynamic exercises involving flexion / abdominal extension movements.

3.2.5 Strength of Arm muscles

The muscle strength of the prospective sport student's arms of the SBMPTN and Mandiri tracks in 2015-2017 has very good criteria, rising from 66 to 68, and Mandiri hitting 50 to 25, the results of this test have been written (Sugiyanto, 1997) that men experience rapid, physical changes, strength.

Adaptation exercises have influence with practice closer to 1 RM person. Alternatively, the increase in muscle size appears to be driven more by higher exercise volume, at least to a certain threshold, (Schoenfeld, 2016) strength training should have started from the initial adolescent period, exercises with 1 RM principle and intensitas can increase muscle mass. Combining the loading strategy may have a synergistic effect on strength and hypertrophics (Schoenfeld, 2016). Drop set resistance training initially performed with higher load increases muscle activity and intramuscular hypoxia during subsequent exercise with 75% 1RM burden among trained individuals (Masahiro Goto, 2016).

3.2.6 Cardiovascular endurance

Cardiovascular endurance of students of SBMPTN and Mandiri sports track in 2015-2016 criteria is very good, decrease from 6 to 1, and stable 1 for Mandiri track, this result has not yet shown any exercises done to improve cardiovascular endurance because (Sugiyanto, 1997) the strengthening exercise for better cardiovascular resistance should begin earlier, an increase in adolescence is higher than adults. The results of the study (Stöggel, 2017) among youth in accordance with the study of adults who showed the importance of upper body strength and endurance that support the performance of motion. Low cardiovascular endurance can be due to poor physical activity and not yet know the right exercise, while reviewing many studies that can be used as a reference to improve cardiovascular endurance exercise, Hypoxic training methods that utilize height training, both in nature / terrestrial and artificial, has been established as an effective means of improving oxygen transport, RBC volume, and VO₂max, given a sufficiently high dose of "altitude" and duration, (Jacob A. Sinex, 2015)

4 CONCLUSIONS

The best profile of tested prospective students is the SBMPTN line 2015, but when compared to the benchmark references, the average test result is in the medium category. So it takes proper exercise to improve the physical condition, so that with good physical condition can affect the performance of motion.

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