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Health related physical fitness of college level women in relation to demographics

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Abstract

The present study was conducted in MCM DAV College for women and Government College for women sec 42 Chandigarh. The data was collected for physical and demographic variables of women. American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD, 1980) Test was used to measure health related physical fitness of the subjects. Eating attitudes were evaluated by EAT-26 questionnaire (Garner, Olmsted, Bohr, & Garfinkel, 1982) and status of vegetarian and non vegetarian was assessed from the responses of the subject. The correlation between health related physical fitness parameter of the college women and their demographics was calculated through the Pearson's product moment coefficient.

Keywords: eating attitudes, health related physical fitness, socio economic status

Introduction

The role of physical activity for the sake of good body equilibrium is an ancient concept. The term "exercise" is often mentioned in the works of Hippocrates and in the works of many other scholars of ancient Greece. Therapeutic exercise was prescribed by physicians and gymnasts. The cult of the body even before being officially sanctioned by the Olympic Games was observed in Greek gymnasias, precisely on the basis of the platonic theory of the two fold beauty of body and spirit (Conti, 2007)^[1].

In a pragmatic definition of Nixon (1994) physical fitness refers to the organic capacity of the individual to perform the normal task of daily living without undue tiredness or fatigue, having reserve of strength and energy available to meet satisfactorily any emergency demands. Ancient Greece, which is considered to be the cradle of civilisation, attached great importance to physical well being and health of the people. Greek Philosopher, Aristotle stated that the body is the temple of the soul, and to reach harmony of body, mind and spirit, the body must be physically fit. Liberal Athenians as well as rigid Spartans attached great importance to physical fitness. Their broader concept includes realization of potentialities to function efficiently and effectively over a longer period. This Demography means writing about people and demographic characteristics that include habitation, background, sex composition age, practice, birth, death, eating pattern, education, procreation, natality, migration and occupation and income (G.C. Pandey, 1990)^[4].

Procedure

Health Related fitness test

A. Physical Variables- Health related fitness

1. Cardio respiratory endurance
2. Abdominal Strength
3. Flexibility
4. Body Composition(fatness)
5. Self-concept

B. Demographics Variables

1. Eating patterns
2. Academic Achievement
3. Socio economic status.

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Health Related fitness test

- A. American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD, 1980) Test was used to measure health related physical fitness of the subjects.
- B. Cardio respiratory endurance was tested using Nine minutes run test. The score was recorded in meters.
- C. Body composition (Fatness of Triceps and sub scapular) was measured in millimeters by skinfold caliper.
- D. The Abdominal strength was tested by using modified Sit-up test executed for one minute. The score was recorded in number.
- E. The Spine or Hip flexibility was measured in centimetres using sit and reach test.
- F. Total body weight was recorded to the nearest half a kilogram by using a weighing machine.
- G. Height was recorded to the nearest inch with the help of steel tape and stadiometer.
- H. Body Mass Index was determined by dividing body weight in kilogram by the square of body height in meters.

Demographic Variables

- A. Eating attitudes were evaluated by EAT-26 questionnaire (Garner, Olmsted, Bohr, & Garfinkel, 1982) and status of vegetarian and non vegetarian was assessed from the responses of the subject.
- B. Academic Achievement was assessed by taking into account the percentage of marks obtained by the subject in class XII and immediate lower class examination

Table 1: Correlation matrix depicting degree of relationship between health related fitness components and demographics of college women

Variable	Ht	Wt	BMI	SES	XIIM	LCM	EAT	DIET	Buli	ORP
Sit Ups	.201*	.091	-.111	.034	.069	.008	.018	.040	-.058	.000
Sit&Reach	.192*	.080	-.098	.160	.180*	.136	-.154	-.114	-.090	-.153
NineMRun	.067	-.114	-.101	-.035	-.048	-.031	-.020	-.008	.052	-.098
Triceps Fat	.168*	.449**	.121	-.001	.280**	.187*	.039	.108	-.035	-.063
Sub Scapular Fat	.132	.519**	.196*	.013	.165*	.066	.165*	.264**	.010	-.074

** Significant at 0.01 level

* Significant at 0.05 level

Results

It may be noted from table 1 that health related physical fitness variables of abdominal strength endurance (sit ups) was significantly related to height ($r = 0.201$) of the college women. Flexibility (sit & reach) component of health related physical fitness also showed significant positive correlation with height ($r = .192$) and academic achievement ($r = .180$) of college women where as cardio respiratory endurance (nine minutes run and walk) did not yield any significant relationship with any of the demographics of college girls. Triceps fatness was significantly related with height ($r = .168$), weight ($r = .449$), and academic achievements ($r = .280$ and $.187$) of college women where as sub scapular fat had positive correlation with weight ($r = .519$), BMI ($r = .196$), academic achievement ($r = .165$), eating disordered attitudes ($r = .165$) and dieting ($r = .264$) demographics of college women.

Recommendations

1. Educational Institutions may continue to offer or increase opportunities for health related fitness through physical activity and sports as it helps in improving intelligence, self concept and academic performance.
2. Keeping in view the today's trend of fast food which appears to be the key cause of eating disorders, healthy

conducted by the respective education board and university.

- C. Socio economic status was judged by taking into account the total income of father and mother as stated by the subject.

Collection of Data

The necessary data on Physical and demographics variables were collected by administering the various tests. All tests were administered in the M.C.M D.A.V. College for Women and Govt. College for Women, Sector 42, Chandigarh in which physical performance tests and tests and demographics were conducted in the playgrounds and Hall of the college respectively. Before the administration of tests, the subjects were given a chance to practice the prescribed tests where ever necessary, so that they become familiar with the tests and knew exactly what was to be done. The use of apparatus was explained to them prior to the administration of tests. To ensure uniform testing conditions the subjects were tested only during the morning and evening for physical performance tests. However, psychological tests and demographics were administered between 10.00 am to 2.00 pm.

The correlation between health related physical fitness parameter of the college women and their demographics was calculated through the Pearson's product moment correlation and coefficients of correlation (r) thereof has been given in table 1.

nutrition awareness campaign may be launched for everybody through educational institutions and media.

3. It is recommended that a similar study may be carried out on male subjects of the same age group.
4. It is also recommended that a similar study may be conducted at national level involving male and female subjects belonging to different demographics.

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