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# Review Of Research



## SIGNIFICANT DIFFERENCE BETWEEN HEALTH RELATED PHYSICAL FITNESS OF MANGALORE UNIVERSITY P.G STUDENTS.

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### ABSTRACT:

The objective of the study is to analyze the purpose of the study was to find out significant difference between health related physical fitness of Mangalore university P.G students. The explanations were given under the following needs. Methods and procedures applied in this



study are described. This includes the selection of subjects, selection of variables, and orientation of subjects, experimental design, and test administration, administration of physical fitness training and statistical analysis of data. Selected sample was divided into two groups, namely rural students' urban students each group

consist of 50 men subjects will be randomly selected during the academic year of 2016-2017.

The data were collected through conducting the test. Playing ability depends upon many factors. These are some of the variables are selected for this study is as follows: - Muscular strength-Modified sit-ups, Flexibility-Sit and reach, Cardio vascular endurance-3 minutes step test, Body composition-Skin fold caliber, Muscular endurance-Modified pull-ups. The gain or improvement, if any by participating in Physical activity programme in physical fitness by the students of P.G course was tested.

**KEY WORDS:** Mangalore university P.G students, Modified sit-ups Sit and reach, 3 minutes step test,

*Skin fold caliber and Modified pull-ups.*

## **INTRODUCTION:**

All living beings are naturally active, they move and they live because they move. Life is characterized by movement. Even the plants which seem obviously inherent also move. All function of the organism depends upon movement. Movement is the cosmic principle matter and mind. The inherent energy is that matters generates movement, in turns, generates and sustain life. Each atom of the universe and each cell of the organism are blessed with vital energy which causes them 'move'. Movement is an inform quality of the organism when movement erases life causes to exist.

Physical movement is the biological necessity; physical education has devised organized games and sports in a systematic way within educational institutions. A student learns a lot when he takes part in any sports events. As we enter the 21st century. One of the greatest accomplishments to be celebrated is the continuous pursuit of fitness since the beginning of man's existence. Man's quest for fitness has been driven by a desire to survive through hunting and gathering. Fitness remains paramount to health and well-being. This article will highlight historical events and influential individuals who have shaped the history of fitness beginning with primitive man up to the foundation of the modern fitness movement.

## **HISTORY OF INDIA FITNESS**

In India, individual pursuit of fitness was discouraged as the religious beliefs of Buddhism and Hinduism emphasized spirituality and tended to neglect development of the body. Consequently importance of fitness within society in general was relatively low. However, an exercise program similar to Chinese con g fu gymnastics developed, while still conforming to religious beliefs, known as yoga. Though it's exact origin has yet to be identified, yoga has existed for at least the fast. 5000 years. Translated, yoga means union, and refers to one of the classic systems of Hindu philosophy that strives to bring together and personally developed the body, mind and spirit. Yoga was originally developed by Hindu priests who lived frugal lifestyles characterized by discipline and meditation. Through observing and mimicking the movement and patterns of animals, priest hoped to achieve the same balance with nature that animals seemed to possess. This aspect of yoga, known as health yoga, is the form with which westerners are most familiar and is defined by a series of exercise in physical posture and breathing patterns (5). Besides balance with nature, ancient Indian philosophers recognized health benefits of yoga including proper organ functioning and whole well-being. These health benefits have also been acknowledge in the modern-day United States, with an estimated 12 million individuals regularly participating in yoga.

## **SPORT IS ONE OF THE STRIKING FEATURES OF TWENTIETH CENTURY LIFE**

As evidenced by the variety and popularity of sporting events in the most diverse parts of the world. This new phenomenon is society has attracted the interest of researchers in many fields, and ever more urgently calls upon historians to contribute to a deeper understanding of sport through their knowledge of the past.

**PHYSICAL FITNESS:** Physical Fitness is one of the main mottos of physical activities. Physical fitness is defined as the ability of the body to adopt and recover them strenuous exercise. The sports performance depends largely on physical fitness speed, agility. Explosive power, the process of improvement of motor ability is also called conditionally.

Physical fitness consists of three areas. Aerobic capacity or cardiovascular endurance pertaining to the heart and vascular system's capacity to transport oxygen. It is also a key area for heart disease in that low aerobic capacity is a risk factor. Strength pertains to the ability of the muscle to generate force. Upper body and abdominal strength area important areas. Physical fitness has been demonstrated to be a bonfire. These three fitness are as have been shown to be predictive job performance ratings and sick tome for police officers. Data also shows that fitness level is predictive of trainability and academy performance physical fitness can he an important area for minimizing liability the unfit officers is less able to respond fully to strenuous physical activity consequently. The risk of hot performing physical duties is increased.

**HEALTH:** In 1948, in its constitution the world health organization (WHO) defined "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infertility." The definition was updated in the 1986 WHO "Ottawa charter and new definition was added for health promotion" to say health is a "resource for everyday life, not the objective of living", aril "health is a positive concept emphasizing social and personal resource, as well as physical capacities."

**HEALTH RELATED PHYSICAL FITNESS:** "Health related fitness is the ability of the heart, lungs muscles, and joints to perform well. Regular physical activity promotes physical fitness. Physical fitness is the condition of the body that results from regular physical activity" "Health related components help you maintain good health. Your body systems, like the cardiovascular, respiratory and muscular systems, all work together"

Health is optimal wellbeing that contributes to quality of life. It is more than freedom disease is important to good health. Optimal health includes high level mental social, emotional, spiritual, and physical wellness within the limits on one's heredity and personal abilities.

**CARDIOVASCULAR ENDURANCE:** Shows how efficiently your heart, circulatory system, and respiratory system, work together over a long period of time.

**Examples:** To increase cardiovascular endurance: running, cycling, and swimming.

**FLEXIBILITY:** The ability of joints to trove throve through their full range of motion. Examples: To increase flexibility: stretching, gymnastics.

**BODY COMPOSITION:** It shows the relative amounts of fat body mass to lean body mass. Examples: To lower fat: all cardiovascular activities.

**MUSCULAR STRENGTH:** The amount of power a muscle can produce.

**Examples:** To increase strength: weightlifting, gymnastics, and push-ups.

**MUSCULAR ENDURANCE:** A muscles ability to produce power for a long duration.Examples: To increase muscular endurance: running, swimming and weightlifting.

#### HEALTH RELATED OF EXERCISE

- + Reduce the risk premature death
- + Reduce the risk of developing and / or dying from heart disease
- + Reduce high blood pressure or the risk of developing high pressure
- + Reduce high cholesterol or the risk of developing high cholesterol
- + Reduce the risk of developing colon cancer and breast cancer
- + Reduce the risk of developing diabetes
- + Reduce or maintain of developing diabetes

- + Reduce or maintain body weight or body fat
- + Build and maintain healthy muscles, bone, and joints
- + Reduce depression and anxiety
- + Improve psychological well being
- + Enhanced work, recreation and sport performance

### SPECIFIC HEALTH BENEFITS OF EXERCISE

Daily physical activity can help prevent heart disease and stroke by strengthening your heart muscle, lowering your blood pressure, raising your high density lipoprotein (HDL) level (good cholesterol), and lowering low lipoprotein (LDL) levels (bad cholesterol), improving blood flow, and increasing your heart's working capacity.

**High blood pressure :** Regular physical activity can reduce blood pressure those with high blood pressure levels. Physical activities also reduce body fatness, which is associated with high blood pressure.

**Non-insulin-Dependent Diabetes:** By reducing body fatness, physical activity can help to prevent and control this type of diabetes.

**Obesity:** Physical activity helps to reduce body fat by building or preserving muscle mass and improving the body's ability to use calories. When physical activity is combined with proper nutrition it can help control weight and prevent obesity, major risk factor for many diseases.

**Back pain:** By increasing muscle strength and improving flexibility and posture, regular exercise helps to prevent back pain.

**Osteoporosis:** Regular weight-bearing exercise promotes bone formation and may prevent many forms of bone loss associated with aging.

**Psychological Effects:** Regular physical activity can improve your mood and the way you feel about yourself. Researches also have found that exercise is likely to reduce depression and anxiety and help you to better manage stress.

### SIGNIFICANCE OF STUDY

- + The study will be helpful to find out whether Mangalore university Post Graduation students have better health related physical fitness or not .
- + This research will be helpful to offer ideas for improving the physical fitness of Mangalore university Post Graduation students.
- + This study will be helpful to serve as a guide line for student to improve the efficiency in specific activity.
- + This study will be useful to suggested remedial exercise for improving the motor ability components.

### THE HYPOTHESIS OF STUDY

- + It was hypothesized that Mangalore university men Post Graduation students were physically fit.
- + It was hypothesized that Mangalore university men Post Graduation students were not fit in some of the health related Physical fitness components.

### LIMITATION OF THE STUDY

- + The height, weights, Diet atmosphere, of the subject were not taken into consideration.

- + The condition of the sleep and rest of the subject, were not take into consideration.
- + Social economic background was not taken into consideration.
- + The psychological and nutritional status of the subject was not taken into consideration.

### METHODOLOGY:

The purpose of the present study was to bring to light the For the purpose of this study under a study on health related physical fitness of Mangalore university post-graduation students for men student will be randomly selected during the academic year of 2016-2017. This chapter describes the selection of subjects, selection of variables, selection of tests, orientation of subject, orientation of testers, test administration, procedures and statistical techniques.

### SELECTION OF VARIABLES

Health related physical fitness will treated as independent variables.

- + Muscular strength
- + Flexibility
- + Cardiovascular endurance
- + Body composition
- + Muscular Endurance

### SELECTION OF TEST

The test use to assess the performance and health related physical fitness variable are given in.

Variables	Test
Muscular strength	Modified sit-ups
Flexibility	Sit and reach
Cardio vascular endurance	3 mines step test
Body composition	Skin fold caliber
Muscular endurance	Modified pull-ups

**COLLECTION OF DATA:** In order to the collect data tests were administrated. The score were recorded in the initial and final reading. Before starting the test all the subjects were oriented as to the purpose of the test. The method of test and the test items were employed throughout the period of investigation. The subject were motivated to extent their fullest cooperation in the successful completion of test.

**EXPERIMENTAL DESIGN:** The selected subject was divided into two groups, namely rural students' urban students each group consist of 50 subjects.

**RELIABILITY OF DATA:** Establish the equipment and tester reliability of the test.

**INSTRUMENTS RELIABILITY:** Instruments such as measuring tape, and top watch were used in this study. All instruments were working in good condition. Their calibrations were tested and found to be accurate enough to serve the purpose of the study.

**TESTER RELIABILITY:** To ensure that the investigator was well versed in the technique of the conducting the test. The investigator had a number of practice sessions in the testing procedures. All the measurements taken by the investigator with the assistance of persons were a squinted with the test and their procedure.

**ORIENTATION OF THE SUBJECTS:** Prior to the administration of the test items. The importance of this

study and subjects involvement in this study was clearly explained to the subjects. Subjects are motivated to perform better during the test. The recording of the each test items will know to the subject to familiarize them about their performance.

### TEST ADMINISTRATION

**MUSCULAR STRENGTH:** (modified sit-ups)

**EQUIPMENT:** Floor, stop watch, and score sheet.

**DESCRIPTION:** The pupil lies on his back, on the floor with legs flexed. A partner holds the ankles down, the heels contact on the floor about 12-18 inches from the buttocks. Arms are crossed on the chest, with hands on the opposite shoulders. The student curls to a sitting position whose the elbows touch the knee. To complete the ups, the student returns to the down position until the mid-back touches the testing surface.

**SCORING:** Record the number of correctly executed sit ups completed in 60 seconds.

**FLEXIBILITY:** (sit and reach)

**PURPOSE:** To measure the flexibility

**EQUIPMENT:** Measuring tape and score sheet.

**PROCEDURE:** The subject was allowed to sit in long sitting position. The subjects were asked to keep the arm forward and the measurement of the middle finger was held on the measuring board. Now the subject was asked to do the active stretch. The distance covered by the middle finger was again measured. The distance between the toe measurements was taken as the score.

**SCORING:** The distance between the two measurements was taken as score, and recorded into the score sheet,

### 3 MINUTES STEP TEST

**PURPOSE:** To measure the cardiovascular endurance.

**EQUIPMENT:** 18 inches height bench stop watch

**DESCRIPTION:** The subjects step up & down 24 times a minute on a bench on a bench of 18 inches height, each time subject should step at the way up on the bench with the body erect the stepping process is performed on 4 counts. The tester may read of 2 with the same foot each time or may change feet as he desires. So long as the four counts step is maintained. The step may be timed with a metronome. If a metronome is not available count the cadence as up down. The tester exercise continues for exactly 3 min, following the exercise the subject rested for 5 seconds in a sitting position, the pulse rate was then counted. 15 seconds at the carotid artery by palpation

Scoring:  $Vo_2 \max = 111.33 - (0.42 * RPR / \text{minute})$

### BODY COMPOSITION: (Skin fold caliper)

**PURPOSE:** The purpose of the test was to determine the body composition.

**EQUIPMENT:** Skin fold caliper, score sheet

**DESCRIPTION:** As the investigation has taken men subjects, the sites selected for the skin folds are chest, abdomen, and triceps. The measurement of the skin fold at the chest was taken from a diagonal fold half way between the shoulder crease and nipple. The abdomen was taken from a vertical fold about one inch to the right of the umbilicus. The triceps was from a vertical fold on the arms. Each side was measured by grasping a double thickness of skin firmly with the thumb and forefingers, pulling for the fold lightly away the muscular tissue. The caliper was held perpendicular to the fold the measurements were taken one half inch below the finger fold.



SCORING:Each site was measured three times and the average of the three closest reading was recorded as the final score.

### MUSCULAR ENDURANCE

**PURPOSE:**The purpose of the test was to measure muscular endurance.

**EQUIPMENT:**Standing barbells and score sheets and stop watch

**DESCRIPTION:**You have a fitness goal and have created a program to help you achieve it. You know your weight and may have even taken measurements. Now it is time to find out just how strong you are. Before starting your program take the time to test your muscular strength and create a beginning base line for your program. This will give you a beginning point so you can track your progress.

**ANALYSIS:** The data was collected by conducting Health related Physical fitness test in different test the collected total data was calculated and converted to percentage according to the fitness of the individuals in different Health related physical fitness components.

### RESULTS AND DISCUSSION

Since the study is limited for specific period the researcher has not given much importance to reveal the demographic profile of the respondents. In place of it the researcher has utilized the help of entry sheets for collecting the information from the respondents. Though the study is based on primary data the researcher utilized maximum of observation in place structured questionnaire or interview schedule. Since the researcher has taken experimental type of research design the researcher have seek the information on the basis of testing's and direct experiments from the respondents. Further the researcher have collected the information from the respondents under different domains of testing's such as Sit-ups test, Sit and reach test, Three minutes step test, skin fold caliber, muscular endurance test.

The collected raw data of different testing's from the respondents were systematically structuralized into columns and rows according to the needs of data analysis and each of the data have been revealed under different tables and headings. However along with the information from respondents the researcher has also reported certain observations of each respondent's for the better understanding of physical fitness. The collected information from the respondents was analyzed under the followings:

**TABLE 1:AREA-WISE DISTRIBUTION OF THE RESPONDENTS**

Sl. No.	Residential Area	No. of Respondents	Percentage (out of 100%)
1.	Urban	22	44.00%
2.	Rural	28	56.00%
<b>Total</b>		<b>50</b>	<b>100.00%</b>

Many of the studies were found that population of the rural portion were more strengthen in all aspect with compare urban sects hence the researcher was keen to bring out the information of both urban and rural population in comparative aspect. Therefore the researcher has made an attempt to include both the respondents for better understanding. As per the data is revealed the researcher has included 22 number of respondents from the urban population that is 44% and 28 respondents were from rural sect. It is clearly says that the majority of the respondents were from rural area with compare to urban amalgamation. Though the study area comes under semi-urban but majority of the

respondents are staying in rural areas.

**TABLE-2:DISCIPLINE-WISE DISTRIBUTION OF THE RESPONDENTS**

Sl. No.	Discipline	No. of Respondents	Percentage (out of 100%)
1.	Science & Technology	22	44.00%
2.	Social Science	21	42.00%
3.	Commerce/Management	07	14.00%
<b>Total</b>		<b>50</b>	<b>100.00%</b>

Since the researcher has given equal importance to include the respondents equally from all the discipline which are existed within the Mangalore University the researcher has taken keen interest in finalizing the sample size from discipline wise such as Science and Technology, Social Sciences and finally Commerce or Management. The study has taken 22 numbers of respondents (44%) from Science and Technology and followed by 21 (42%) respondents are from purely Social Sciences and in the last the researcher has covered a marginal number of respondents from Commerce/Management that is 7 (14%) respondents. In comparative aspect from all the disciplines it is science and technology is dominated in study by participating maximum. Though the researcher has given equal importance to choose the respondents from each discipline but in the final the sample distribution became unequal due many issues such as lack of interest in participation. With compare to social science and management students the science and technology students have shown maximum interest to be the part of the study.

**TABLE- 3:AGE-WISE DISTRIBUTION OF THE RESPONDENTS**

Sl. No.	Age Category	No. of Respondents	Percentage (out of 100%)
1.	21	07	14.00%
2.	22	09	18.00%
3.	23	22	44.00%
4.	24	07	14.00%
5.	25	02	4.00%
6.	Above 26	03	6.00%
<b>Total</b>		<b>50</b>	<b>100.00%</b>

The researcher for the purpose of scientific study has taken the respondents from the age between 21 years to 26 years of age. In the study it is found that the average age of the respondents is 23 and half years. However since the study covers limited number of respondents the researcher make an attempt to take exact age of the respondents. According to the data the majority of the respondents (44%) were falls under the age category of 23 years which is considered as mean age of the respondents. Followed by this 18% of the respondents were falls under the category of 22 years. A least number of respondents (4%) were from the category of 25 years followed by 6% from the age group of above 26 years.

**TABLE- 4: OBSERVATIONAL READING OF SIT-UPS TEST**

Sl. No.	Sit Ups	No. of Respondents	Percentage (Out of 100%)
1.	11-20	04	8.00%
2.	21-30	26	52.00%
3.	31-40	15	30.00%
4.	41-50	05	10.00%
<b>Total</b>		<b>50</b>	<b>100.00%</b>

While measuring the physical fitness in any one examining the stability of sit-ups is essential to check out the overall strength of the body hence the researcher have taken all precautions to measure it under the scientific guidelines. In the experience of the researcher according to the collected information of the respondents it is found that majority of the respondents (26) were found sit up rate between the category of 21-30 and a countable number of respondents that is 30% (15) were falls under the sit-up rate of 31-40. However it is observed from the data a marginal number of respondents of 8% were comes under the range from 11 to 20 followed by 10% of them are in rage of 41-50 category. The debatable issue is here that testing the sit ups is criteria for the measurement of fitness hardly a matter of assessment in the view of researcher with scientific methods of which the researcher have taken assistance of research guide along with experts. Hence in the table it depicts that the average value of the sit up test among the respondents were running under normal stage. Further it can be suggested to the respondents who are having poor status of sit ups to improve and modification with the help fitness exercises.

**TABLE- 5: MEASUREMENT OF RESTING HEART RATES**

Sl. No.	RHR	No. of Respondents	Percentage (Out of 100%)
1.	40-50	08	16.00%
2.	51-60	32	64.00%
3.	61-70	04	8.00%
4.	71-80	04	8.00%
5.	Above 80	02	4.00%
<b>Total</b>		<b>50</b>	<b>100.00%</b>

**\*RHR:** Resting Heart Rates. A healthy rate of heart beats can depicts the overall health status of a person hence while measuring the physical fitness it is required to examine the resting heart rates. Therefore the researcher included all the respondents for the testing of resting heart rates in scientific aspect out of the total number of respondents around 32 respondents (64%) were falls under the rate of 51-60 which is considered here as average rate of heart rest and followed by 16% of the respondents were falls lesser the average rate that is between 40-50. Around 8% of them are rectified in the group of above average rate in the range of 61-70 followed by another eight percentage in category of 71-80 and At last marginal number of respondents are comes under the resting heart rate of above eighty group. Though in the study it is found that more than half of the samples size was comes under the average level it is equally importance to suggest the respondents to maintain equilibrium in terms of resting heart rates in benefit of maintain good health and sound fitness for the growth and development of personality.

**TABLE- 6: MEASUREMENT OF MAXIMUM HEART RATES**

Sl. No.	MHR	No. of Respondents	Percentage (Out of 100%)
1.	171-180	06	12.00%
2.	181-190	12	24.00%
3.	191-200	32	64.00%
<b>Total</b>		<b>50</b>	<b>100.00%</b>

\***MHR:** Maximum Heart Rates.

While counting the heart rate between the intervals of resting the examiners should keep in mind that minimum and maximum rates of the heart rates and in a way this will help in finding the average rate in an given sample size or among the respondents. Keeping this factor as a prime concern the researcher attempted to measure the maximum heart rates from the respondents and it is found that a sixty four percentage (32 respondents) of the respondents are having the heart rate between the ranges of 191 to 200 which is considered as maximum here. Around twenty four percentage (12) are of comes in the category of 181-190 and remaining 12% of the respondents are belongs to the group of 171-180 which is considered here as a least observation among the maximum rate. As the physical exercises increases the heart rates are also going to be increase in meager level due to body workout. Hence in the view of researcher it can assume that maximum numbers of respondents are well enough in maintaining the good health in terms of maintain maximum heart rates.

**TABLE- 7: COMPARATIVE MEASUREMENT OF SIT AND REACH TEST**

Sl. No.	Sit & Reach Values	No. of Respondents	Percentage (Out of 100%)
1.	-10 to -20	02	4.00%
2.	-21 to -30	03	6.00%
3.	+10 to +20	21	42.00%
4.	+21 to +30	19	38.00%
5.	Above 30 +	05	10.00%
<b>Total</b>		<b>50</b>	<b>100.00%</b>

Working on issues which are related to measurement of physical fitness independently is an easy task but while doing the same in comparative aspect is bit tougher and requires additional knowledge and information too for the researcher. Tracing both the values of positive and negative observation in one column will definitely give sound result to audience of academic hence the researcher had make an effort to examine the sit and reach in both the aspect of positive and negative. In the study the primary data depicts that majority of the respondents (42%) were found in category of positive aspect of observation that is in the range of +10 to +20 which is known for the healthy fitness and their personality sounds energetic and strength enough. Around thirty eight percentages (19 respondents) of them are fall again under the category of positive observation which is ranges between +21 to +30 and these are respondents who are known for having good fitness.

Only 10% of the respondents are above average in maintaining stability in sit and reach who are fall in rate of above 30+ categories. In one side it is positive at a same time the negative aspect of the data is that 4% of the respondents are falling in range of -10to -20 which is considered here as negative observation. In the view of the researcher it can be concluded that this type respondents body condition in related to physical fitness is somewhat problematic and the body reaction will be less and unhealthy too. At last hardly six percentage of the respondents are comes under the group of -21 to -30

who are known for poor fitness. In conclude around 10% of the respondents are need special focus to improve their sit and reach capacity to increase the body stability rate for the maintenance of healthy and energetic personality for the normal function.

**TABLE- 8: MEASUREMENT OF MUSCULAR ENDURANCE**

Sl. No.	Muscular Endurance Rate	No. of Respondents	Percentage
1.	11-15	06	12.00%
2.	16-20	24	48.00%
3.	21-25	16	32.00%
4.	26-30	04	8.00%
<b>Total</b>		<b>50</b>	<b>100.00%</b>

In medical endurance while doing the personality test there will be muscular endurance test to measure the strength of the body according to the age. It also helpful in measuring the development of body with cross-sectional comparison of age and height. In some special cases even this test can be used to identify the exact age of the person in case of he or she doesn't know the exact age. Hence the muscular endurance test is much useful in all aspect of human being. In the study it is found that forty eight percent of the respondents were found their endurance of muscular test in the range of 16-20 category it means nearer to the half of the sample size were fall under this category and remaining thirty two percent of the them are having muscular endurance rate between 21- 25 rate. More than twelve percent of the respondents are having endurance of 11 to 15 rates and at the last only eight percent are having the rate of endurance between 26-30 which is considered here as highest number observation among all the respondents in testing of muscular endurance. As sum up the overall observation of muscular endurance the maximum number of respondents are comes under the above average level and only a marginal proportion of the respondents are needs to improve further to improve their muscular endurance stability for the growth and development of their personality.

**TABLE- 9: MEASUREMENT OF SKIN FOLD CALIPER TEST**

Sl. No.	Muscular Endurance Rate	No. of Respondents	Percentage
1	31-40	3	6%
2	41-50	7	14%
3	51-60	26	52%
4	61-70	12	24%
5	71-80	2	4%

Measuring the skin fold caliper is one of the essential components in assessing the physical fitness of human body hence the researcher has taken this independently as part of significance for the presents study. In the above illustration it is defected that out of total number of respondent there were 52% of the respondents were falls between the ranges of 51 to 60. And other 24% of the respondents were comes under the range of 61 to 70 were the significance level of fat contents in the skin was above the average. A considerable portion of the respondents that is 14% were rectify from the range group of 41 to 51% followed by 6% in category of 30 to 40% and at last 4% were falls in rang of 71 to 80.

**MAJOR FINDINGS:**

- Since the study has given enormous opportunity for the rural population the researcher was unable to understand the situation of urban population in the researcher was not much satisfied in understanding the status of urban population.
- Although the researcher intended to include both the rural and urban population equally for the present study it was quite unfortunate that the research has mostly represented by rural than urban population.
- Since the number of respondents from commerce and management were in dearth it can be assumed that the participation level of them are very less with compare to social sciences and sciences in terms of maintaining and participating in physical fitness activities.
- As identified by the researcher the average age of the respondents who are participated in the present study if twenty three years it is evident that most of the participants are in this average stage only and it can be considered as one of the positive connotation of the research.
- Since for the better understanding of testing the researcher has limited the rate of sit ups in terms of class intervals and it is assumed that the average rate falls between the range of 21-30 of which majority of the respondents are comes under this range. It is observed that the levels of sit ups rate among the respondents are appreciable but however there is a need to improve the same who are lagging.
- It is experienced that lesser the heart resting rate higher the level of endurance. Hence out of the total number of sample more than fifty percent were having the heart resting rate between the 51-60 and it evidences that the majority of the respondents are having good endurance capacity of physical fitness. However there is a need to take the measures to improve their level of endurance who are having the below the average.
- As per the study the majority of the respondents are having the maximum heart rates in the range of 191-200 which is known as neither good nor the bad with compare to other comparative intervals. Never the less there should be self-observation in managing their level of heart rates in an average level.
- While studying the sit and reach test in comparative aspect it is found that majority of the respondents are in positive level but never the less a countable number of respondents are unable to improve the sit and reach level from negativity to positive. Hence there may certain cross sectional comparative initiative in improving their level of sit and reach capacity in improving the endurance of physical fitness.
- Major portion of the samples were found in condition of muscular endurance in the study. According to the data a vast population is having health fitness in terms of muscular endurance but a keen interest needs to be taken in improving the population who are lagging behind in terms of maintaining good muscular endurance capacity.
- At the last measuring the skin fold caliper test is an essential observation in chalk out the endurance. As the study reveals majority of the respondents are having fat content in skin in between the rage of 51-70 and as per the advisable studies their level fat content needs to bring down for the purpose of maintain physical fitness.

**SUGGESTIONS AND RECOMMENDATIONS:**

- Other than the information collected from the respondents with the help of entry sheets and testing in the observation of researcher it is found that there is a dearth of information about physical fitness among the respondents hence there is need for taking up the initiatives to remove this gap.
- In the study it is found that there is lack of awareness on fitness maintenance and its importance

hence the university can establish separate cell to fulfill the dearth of this.

- Since the study covers much of the rural population it was unable to understand the scenario of problems of urban students in terms of physical fitness hence the similar study can be taken up where the enormous chance needs to be given for urban students.
- A micro level study can be done again on the issue to know the reason behind irregularities of commerce and management students in participation of physical fitness activities.
- There should have the provision for evaluative assessment in understanding the problems which the respondents are facing in maintain the sound endurance and needs to identify the reasons for it.
- Out of the interaction from the respondents it is found that there should be instruction board in every departments and it should spell out the information on fitness and endurance.
- In comparative aspect of the research in comparison of sit and reach there is imbalance hence the experts in the field of endurance can take some actions among the respondents to maintain equilibrium.
- Since there is significant relationship between physical fitness and diet practices the researcher felt the need of nutrition experts role there concerned authorities can lend the nutritional scientist.
- It is found that among the respondents there are many problems related to physical fitness due to imbalance in routine activities therefore it can be suggested to regularize the routine activities along with other commitments.
- At the last a sufficient manpower needs to be recruited in strengthening the physical activities in maintaining the fitness.

#### **CONCLUSION:**

Summing up of the present research in the beginning the researcher knows the concept of physical fitness in general and there were no much insight into the practice. But in the present study the researcher has gained lot of information from both primary and secondary sources. Further the tests which are conducted with the respondents are fruitful in gaining the practicum of different measurements.

In the context of testing's there were no much difficulty in understanding the concepts but there was a problem in practically testing the outcomes with specialized knowledge of statistics hence the researcher has inculcated the simple percentile method for the process and conclusion of the results of testing. According to this tests it is found that the overall scenario of the study is in positive aspect where there were few modifications are really required to improve the fitness activities in general. Further from the data the inferences have been drawn for the reaching of general readers of the present work along with the application of knowledge to know more about different aspects of physical fitness activities.

At last as part of conclusion the following inferences can be adopted to improve the backwardness of poor physical fitness amenities such as proper monitoring, feeding of sufficient information on fitness, evaluation of endurance with the application of mind and finally comparative analysis with different aspect and domains of physical activities and physical fitness.

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