



P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (RJIF): 5.38
IJPESH 2023; 10(1): 43-47
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www.kheljournal.com
Received: 14-11-2022
Accepted: 24-12-2022

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Comparison of muscular strength and endurance flexibility and cardio respiratory endurance among catholic seminarians

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Abstract

The purpose of the study was to find out comparison of muscular strength and endurance flexibility and cardio respiratory endurance among catholic seminarians. Catholic seminarians were selected as subjects from various catholic seminaries in Kerala. The subjects were ranged between 16 to 26 years. The selected catholic seminarians were assessed by Somatic variables. The selected subjects were divided into three equal groups namely groups of 50 subjects each. The muscular strength and endurance, flexibility and cardio respiratory endurance were selected as dependent variables. Selected dependent variables were measured by Modified sit ups, Sit and reach test and Cooper 12 Mins run and walk test. The obtained data from the group Descriptive statistics the analysis of variance (ANOVA) will be used to find out the significance among the mean differences, whenever the 'F' ratio for will be fixed to test hypothesis. Significant improvements the level of significance was fixed at 0.05 level confidences for all the cases. Significant improvement was found on muscular strength and endurance flexibility and cardio respiratory endurance group due to the comparison of when compared to the catholic seminarians group.

Keywords: Muscular strength and endurance flexibility and cardio respiratory endurance

Introduction

Seminary is the place where the candidates are selected and given formation for the service of the humanity through church. The students in the seminary are called as seminarians. They have specific pattern of life including spiritual, intellectual and social, but the formatters are not much aware about the physical fitness. As they prepare themselves for the service to the whole world they should be physically fit to discharge their duties. This research may help them.

Seminarian in the Catholic Church

A seminarian is a man who is discerning the Lord's call to the Roman Catholic Priesthood. By virtue of his baptism, he is a member of the priesthood of all believers. The seminarian hears the Lord speaking to him and calling him to a fuller participation in the priesthood by becoming a priest of Jesus Christ. While the priesthood has many elements that make it like a job, it is primarily a vocation: a calling from the Lord. The seminarian then needs to be open to hearing the Lord's call in his life and be eager to respond to it.

Procedure to selected seminarian

Believing that, it is primarily a vocation: a calling from the Lord, the official authorities of the Catholic Church select the candidates to be seminarians based on certain criterion. The church in every country has specific norms to select the candidates in line with the guide lines given by the Magisterium, the highest authority in Roman Catholic Church. As per the catholic church in India the requirement to be a seminarian is following.

1. Age: A young man may apply for the seminary after completing high school. The upper age limit is normally fifty years because of the length of time required for seminary training and the reality that illnesses often increase and energy decreases with age. Candidates in their late twenties and thirties are common.

2. Education

A high school diploma or Higher Secondary certificate is required to enter college seminary. Ordinarily a college degree is required to enter theology.

3. Health

Good physical and mental health is required and must be certified by health care professionals because of the life-long demands of the priesthood for physical stamina and emotional stability.

4. Family Background

The young man aspiring to be a seminarian must be from a reputed family in matters regarding faith and following catholic tradition. The candidate also has to demonstrate his personal conviction to follow the moral teaching, discipline and liturgy of the Catholic Church.

Catholics

Catholicism is the traditions and beliefs of Catholic Churches. It refers to their theology, liturgy, morals and spirituality. The term usually refers to churches, both western and eastern, that are in full communion with the See. In 2012, there were more than 1.1 billion Catholics worldwide. This makes up more than 17% of the world population. The word "Catholicism" comes from the Greek word *katholikos*. This means "according to the whole". Many people use the word Catholicism to talk about religious beliefs of the Catholic Church, whose leader is called the "Bishop of Rome" and often called the "Pope". The Catholic Church is based in the Vatican City, a small independent country in the city of Rome, Italy. Sometimes the word also refers to beliefs of other Christian churches, including the Eastern Orthodox Churches, who have many beliefs similar to the Catholic Church, but do not believe the Bishop of Rome is their leader. The word Catholicism is often used to tell the difference between the beliefs of Catholic Christians and the beliefs of others called Protestant Christians. Catholic and Orthodox churches use church leaders, called bishops, to determine beliefs. Protestants, however, often use each member's own understanding of the Bible to determine beliefs. Protestants use guidelines from the 16th-

century Protestant Reformation to understand the Bible. It is the world's second largest religious denomination after Sunnism.

Methodology

For the purpose of this study, altogether catholic seminarians were selected as subjects from various catholic seminaries in Kerala. The subjects were ranged between 16 to 26 years. The selected catholic seminarians were assessed by Somatic variables. The selected one fifty subjects were divided into three equal groups, consists of fifty each, namely group - I Muscular Strength and Endurance, group – II Flexibility and group III Cardio Respiratory endurance. Test would be conducted. It would be find out finally the comparison of muscular strength and endurance, flexibility and cardio respiratory endurance among catholic seminarians in scientific methods.

Table 1: The selected tests were measured by following units for testing

| Criterion Variables | Test Items | Unit Measurements |
|---------------------------------|----------------------------------|-------------------|
| Muscular Strength and Endurance | Modified sit ups | In Counts |
| Flexibility | Sit and reach test | Centimeters |
| Cardio-Respiratory Endurance | Cooper 12 Mins run and walk test | Meters |

Statistical Technique

Descriptive statistics the analysis of variance (ANOVA) will be used to find out the significance among the mean differences, whenever the 'F' ratio for will be fixed to test hypothesis.

Results and Discussions

The analysis of independent variables on each criterion variables was considered by dependent 'F' – ratio on the data achieved for Muscular Strength and endurance, flexibility and Cardio respiratory endurance. The pretest and post- test means of different groups have been analyzed and existing in Table 2, 3 & 4.

Table 2: Oneway Anova for muscular strength and endurance among minor Seminarians philosophers and theologians in the catholic seminarians

| | Different Groups of catholic seminarians | | | Source of Variance | Sum of Squares | Df | Mean Squares | F |
|------|--|--------------|-------------|--------------------|----------------|-----|--------------|----------|
| | minor seminarians | philosophers | Theologians | | | | | |
| Mean | 28.12 | 38.58 | 30.18 | Between | 3070.253 | 2 | 1535.127 | 33.677 * |
| | | | | Within | 6700.840 | 147 | 45.584 | |

Table F – ratio at 0.05 level of confidence for 2 and 147 (df) = 2.01.

*Significant

Table 1 shows that the obtained mean values on muscular strength and endurance of the minor seminarians was 28.12, philosophers was 38.58, Theologians was 30.18. The analysis of variance (ANOVA) of the means proved that there was significant difference in muscular strength and endurance between the different catholic seminarians as the obtained F value of 33.677 was greater than the required F value of 2.01 to be significant at 0.05 level of confidence.

Since there was significant differences among minor seminarians, philosophers and Theologians in somatic variables such as muscular strength and endurance, Scheffe's post hoc analysis was made to find out the mean difference

and which is presented in table 3.

Table 3: Scheffe's post hoc test for difference between means on muscular strength and endurance among minor seminarians philosophers and theologians in the catholic seminarians

| Different Groups of catholic seminarians | | | MD | CI |
|--|--------------|-------------|-------|------|
| minor seminarians | philosophers | Theologians | | |
| 28.12 | 38.58 | - | 10.46 | 3.31 |
| 28.12 | - | 30.18 | 2.06 | |
| - | 38.58 | 30.18 | 8.40 | |

*Significant.

Table 3 shows the mean difference on muscular strength and endurance among minor seminarians, philosophers and Theologians in the catholic seminarians.

There was a significant difference in muscular strength and endurance between minor seminarians group and philosophers groups and between philosophers group and Theologians group as the obtained mean difference of 10.46 and 8.40 were greater than the CI value of 3.31 at 0.05 level of confidence.

The table 3 reveals that there was no significant difference in muscular strength and endurance between minor seminarians group and Theologians group as the obtained mean difference of 2.06 were lesser than the CI value of 3.31 at 0.05 level of confidence.

The obtained mean values on muscular strength and endurance among minor seminarians, philosophers and Theologians in catholic seminarians were presented through bar diagram for better understanding of the results in figure 1.

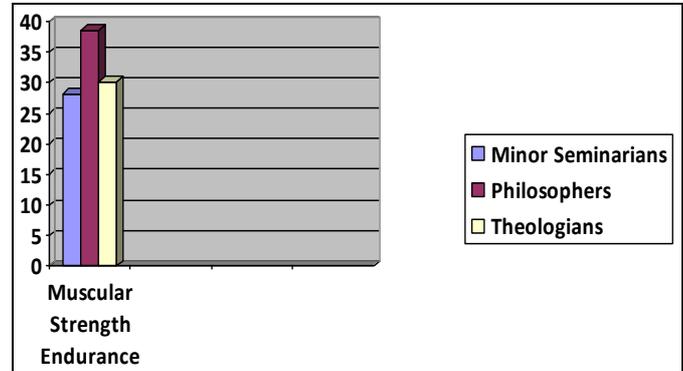


Fig 1: The obtained mean values on muscular strength and endurance among minor seminarians, philosophers and Theologians in catholic seminarians were presented through bar diagram for better understanding of the results

Table 4: Oneway Anova for flexibility among minor seminarians philosophers and theologians in the catholic seminarians

| | Different Groups of catholic seminarians | | | Source of Variance | Sum of Squares | Df | Mean Squares | F |
|------|--|--------------|-------------|--------------------|----------------|-----|--------------|-------|
| | minor seminarians | philosophers | Theologians | | | | | |
| Mean | 26.78 | 32.94 | 30.47 | Between | 961.125 | 2 | 480.562 | 1.618 |
| | | | | Within | 43666.281 | 147 | 297.050 | |

Table F – ratio at 0.05 level of confidence for 2 and 147 (df) = 2.01.

*Significant

Table 4 shows that the obtained mean values on Flexibility of the minor seminarians was 26.78, philosophers was 32.94, Theologians was 30.47. The analysis of variance (ANOVA) of the means proved that there was no significant difference in Flexibility between the different catholic seminarians as the obtained F value of 1.618 was greater than the required F value of 2.01 to be significant at 0.05 level of confidence.

Since there was no significant differences among minor seminarians, philosophers and Theologians in somatic variables such as Flexibility, Scheffe’s post hoc analysis was made to find out the paired mean difference and which is presented in table 5.

Table 5: Scheffe’s post hoc test for difference between means on flexibility among minor seminarians philosophers and theologians in the catholic seminarians

| Different Groups of catholic seminarians | | | MD | CI |
|--|--------------|-------------|------|------|
| minor seminarians | philosophers | Theologians | | |
| 26.78 | 32.94 | - | 6.16 | 3.15 |
| 26.78 | - | 30.47 | 3.69 | |
| - | 32.94 | 30.47 | 2.47 | |

*Significant.

Table 6 shows the mean difference on muscular strength and endurance among minor seminarians, philosophers and Theologians in the catholic seminarians.

There was a significant difference in muscular strength and endurance between minor seminarians group and philosophers groups and between minor seminarians group and

Theologians as the obtained mean difference of 6.16 and 3.69 were greater than the CI value of 3.15 at 0.05 level of confidence.

The table 6 reveals that there was no significant difference in muscular strength and endurance between philosophers group and Theologians group as the obtained mean difference of 2.06 were lesser than the CI value of 3.31 at 0.05 level of confidence.

The obtained mean values on muscular strength and endurance among minor seminarians, philosophers and Theologians in catholic seminarians were presented through bar diagram for better understanding of the results in figure 2.

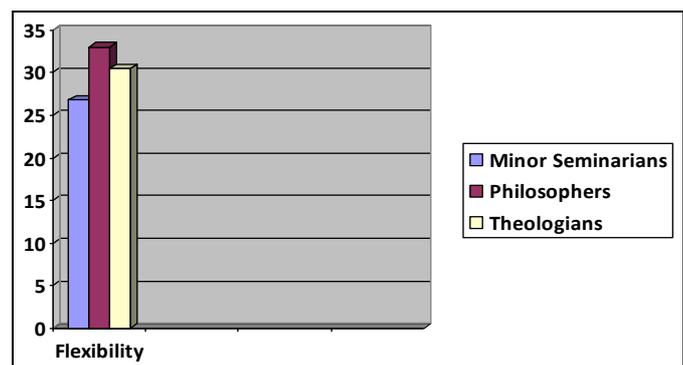


Fig 2: Mean values on muscular strength and endurance among minor seminarians, philosophers and Theologians in catholic seminarians were presented through bar diagram for better understanding of the results

Table 6: Oneway Anova for cardio respiratory endurance among minor Seminarians philosophers and theologians in the catholic seminarians

| | Different Groups of catholic seminarians | | | Source of Variance | Sum of Squares | Df | Mean Squares | F |
|------|--|--------------|-------------|--------------------|----------------|-----|--------------|-------|
| | minor seminarians | philosophers | Theologians | | | | | |
| Mean | 2.11 | 2.28 | 2.63 | Between | 7004.333 | 2 | 3502.667 | 2.196 |
| | | | | Within | 4.305 | 147 | 29286.500 | |

Table F – ratio at 0.05 level of confidence for 2 and 147 (df) = 2.01.

*Significant

Table 6 shows that the obtained mean values on Cardio respiratory endurance of the minor seminarians was 2.11, philosophers was 2.28, Theologians was 2.63. The analysis of variance (ANOVA) of the means proved that there was significant difference in Cardio respiratory endurance between the different catholic seminarians as the obtained F value of 2.196 was greater than the required F value of 2.01 to be significant at 0.05 level of confidence.

Since there was significant differences among minor seminarians, philosophers and Theologians in psychic variables such as Cardio respiratory endurance, Scheffe's post hoc analysis was made to find out the mean differences and which is presented in table 7.

Table 7: Scheffe's post hoc test for difference between means on cardio respiratory endurance among minor Seminarians philosophers and theologians in the catholic seminarians

| Different Groups of catholic seminarians | | | MD | CI |
|--|--------------|-------------|------|------|
| minor seminarians | philosophers | Theologians | | |
| 2.11 | 2.28 | - | 0.17 | 1.58 |
| 2.11 | - | 2.63 | 0.52 | |
| - | 2.28 | 2.63 | 0.35 | |

*Significant.

Table 7 shows the mean difference on Cardio respiratory endurance among minor seminarians, philosophers and Theologians in the catholic seminarians.

There was a significant difference in Cardio respiratory endurance between minor seminarians group and Theologians group and between minor seminarians group and philosophers groups and between philosophers group and Theologians group as the obtained mean differences of 0.17, 0.52 and 0.35 were lesser than the CI value of 1.58 at 0.05 level of confidence.

The obtained mean values on Cardio respiratory endurance among minor seminarians, philosophers and Theologians in catholic seminarians were presented through bar diagram for better understanding of the results in figure 3.

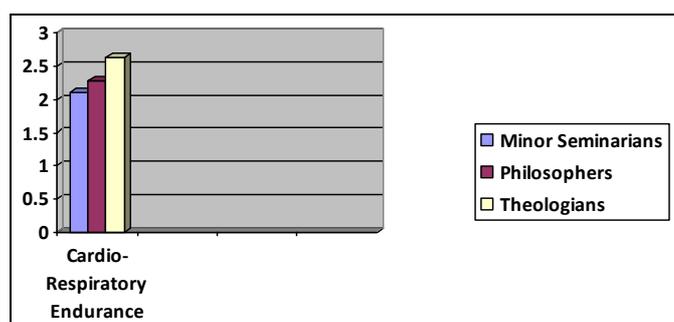


Fig 3: Cardio respiratory endurance among minor seminarians, philosophers and Theologians in catholic seminarians were presented through bar diagram for better understanding of the results

Discussion on findings

The finding of the study reveals that the minor seminarians, philosophers and Theologians in catholic seminarians should significant improvement in their muscular strength and endurance, flexibility and cardio respiratory endurance. The findings of the study had close relationship with the results of the previous study conducted by Man-Ging, C. I., Frick, E., & Baumann, K. (2018) Coping mechanisms for psychosomatic symptoms among aging roman catholic German priests in their study, they stated that minor seminarians, philosophers and Theologians in catholic seminarians significant improvement in their muscular strength and endurance,

flexibility and cardio respiratory endurance.

Conclusions

Improvement of on muscular strength and endurance, flexibility and cardio respiratory endurance was found significantly on group due to the comparison of muscular strength and endurance, flexibility and cardio respiratory endurance when compared to the group.

In the present study the following conclusions have been made

1. It was concluded that there was a significant difference on selected muscular strength and endurance, flexibility and cardio respiratory endurance among minor seminarians, philosophers and Theologians in the catholic seminarians.
2. It was concluded that minor seminarians were better on selected muscular strength and endurance than the philosophers and Theologians in the catholic seminarians.
3. It was concluded that Theologians were better on selected flexibility and cardio respiratory endurance than the minor seminarians and philosophers in the catholic seminarians.

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