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Investigation of Participation in Exercise Motives among Various Strata of Society

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Abstract

The purpose of this study was to investigate the exercise motives among the persons in different strata of the society. It was also investigated the role of gender and socio-economic status in deciding the exercise motives. Sample consisted of subjects (male and female) in the age category of 18 to 65 years with mean and SD 33.22± 13.45 drawn from different sections of the society i.e. employees and college going students, who performs moderate to vigorous physical exercises. The exercise motivation inventory-2 and Kuppu Swami SES Scale were used in the study. Descriptive statistics and analysis of variance were used to analyze the data. The study revealed that Revitalization, Enjoyment, and Appearance motives were significantly different in different age categories of male whereas ill-health pressure was significantly different in different age categories of female. The study concluded that the exercise motives vary with socioeconomic status in female whereas no such pattern existed in male. Further, appearance, ill-health pressure and weight management were the important considerations in female.

Keywords: socio-economic status, exercise motivation.

1. Introduction

Physical activity focuses on both practical and theoretical understanding of psychological, sociological, and socio psychological variables involved in sport and physical activity (Marelene, 2013). Fitness means being able to perform physical activity. It also means having the energy and strength to feel as good as possible. Getting more fit, even a little bit, can improve your health (Fitness, Exercise, 2017). In the world, fitness is the central part of wellbeing which is lacking because of too much modernization in the world. An estimated 12.6 million people died as a result of living or working in an unhealthy environment, (WHO, 2017), even in South-Asian Countries alone 3.8 million deaths occurred due to unhealthy environment. The top risks associated with the premature deaths of both men and women are high blood pressure, smoking, high body mass index (BMI), and high blood sugar levels (Davies, 2015).

These risks can be reduced substantially due to physical exercises. But the big question is that what motives people have for exercising. In other words what drag the people towards doing exercise in their daily routine. In this study intensive analysis has been made to investigate specific motives, which drag people for exercise in their everyday schedule. Further, the study will also reveal different motives for exercise among male and female of different socio-economic groups. Socioeconomic status is the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation (American Psychological Association, 2017).

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2. Methodology

Materials and methods

Besides investigating different exercise motives among various sections of the society we also investigated the relationship of gender and socio-economic status with exercise motives. Sample for the study was drawn from different sections of the society such as employees and college going students between ages 18-65 years. Stratified sampling technique was used in this study. Descriptive statistics t test and analysis of variance technique were used to analyze the data. The EMI-2 questionnaire developed by David Markland, 1997 was used to examine individual's participation motives. It consists of 51 items comprising fourteen sub-scales; stress management, revitalization, enjoyment, challenge, social recognition, affiliation, competition, health pressures, ill-health avoidance, positive health, weight management, appearance, strength & endurance and nimbleness. Each of these sub scales was rated on a 6-point Likert scale from 0 (not at all true for me) to 5 (very true for me).

The entire analysis in this research was carried out in order to address the following five research issues:

1. To understand the nature of data obtained on all the 14 sub-scales of exercise motives in male and female.
2. Is there any difference on each sub-scale of exercise motives among females in '21-40' and '>40' age categories?
3. Is there any difference in different subscales of exercise motives among male subjects in their age categories (<20, 21-40, and >40)?
4. Is there any difference in each sub-scale of exercise motives between male and female in '21-40' age category as well as in >40 age category?
5. Is there any difference in exercise motives of subjects belonging to different socio-economic status in male as well as in female categories?

3. Results

In this section, the results obtained in the analysis to address the above mentioned research issues have been shown. Table 1 describes the nature of data obtained on each of the 14 subscales of exercise motives in male & female.

Table 1. Descriptive statistics of different sub-scales of exercise motives obtained in male

Sub scale	N	Mean	Std. Error of Mean	SD	Variance	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
Revitalization	37	3.825	0.165	1.006	1.011	-1.213	0.388	1.990	0.759
Enjoyment	37	3.591	0.193	1.174	1.379	-0.978	0.388	0.280	0.759
Challenge	37	3.621	0.167	1.016	1.033	-0.796	0.388	-0.518	0.759
Affiliation	37	3.331	0.224	1.360	1.850	-1.172	0.388	0.937	0.759
Ill_Health_Pressure	37	4.278	0.171	1.037	1.076	-2.215	0.388	5.292	0.759
Positive_Health	37	4.496	0.163	0.990	0.981	-3.219	0.388	12.133	0.759
Weight_Management	37	4.149	0.189	1.151	1.325	-1.355	0.388	0.658	0.759
Stress Management	37	3.366	0.187	1.135	1.287	-0.642	0.388	0.661	0.759
Social_Recognition	37	2.588	0.167	1.016	1.032	-0.246	0.388	0.124	0.759
Competition	37	2.827	0.209	1.269	1.609	-0.084	0.388	-0.942	0.759
Health_Pressure	37	2.041	0.261	1.586	2.516	0.530	0.388	-0.886	0.759
Appearance	37	4.231	0.142	0.861	0.742	-0.650	0.388	-1.131	0.759
Strength_endurance	37	3.858	0.163	0.989	0.978	-0.663	0.388	-0.381	0.759
Nimbleness	37	4.092	0.153	0.931	0.867	-1.482	0.388	3.555	0.759

Table 1 shows that the skewness value of revitalization, enjoyment, challenge, affiliation, ill-health pressure, positive health, weight management, and nimbleness are more than twice of its standard error (2×.388) and also have negative sign which means that the data of these parameters are negatively skewed. In other words these eight parameters are not the real motives of exercise for

most of the subjects in male category. On the other hand kurtosis values of revitalization, ill-health pressure, positive health, and nimbleness are positive as well as significant because its values are greater than twice of its standard error (2×.759). Thus, the distributions of these four parameters are leptokurtic, which shows that there is a less variation of the scores on these four parameters around their mean. In other words responses of male on these parameters were homogeneous.

Table 2. Descriptive statistics of different sub-scales of exercise motives obtained in female

	N	Mean	Std. Error of Mean	Std. Deviation	Variance	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
Stress Management	66	3.578	0.132	1.076	1.157	-0.953	0.295	1.369	0.582
Competition	66	2.893	0.147	1.194	1.425	-0.564	0.295	0.083	0.582
Health_Pressure	66	1.809	0.157	1.275	1.624	0.552	0.295	0.065	0.582
Ill_Health_Pressure	66	3.855	0.159	1.295	1.676	-1.382	0.295	1.588	0.582
Positive_Health	66	4.289	0.109	0.889	0.790	-2.122	0.295	7.153	0.582
Appearance	66	3.519	0.149	1.212	1.470	-0.664	0.295	-0.269	0.582
Nimbleness	66	4.030	0.125	1.019	1.038	-0.695	0.295	-0.755	0.582
Revitalization	66	3.437	0.132	1.073	1.150	-0.422	0.295	-0.283	0.582
Enjoyment	66	3.389	0.142	1.153	1.329	-0.455	0.295	-0.645	0.582
Challenge	66	3.249	0.138	1.124	1.263	-0.497	0.295	-0.178	0.582
Social_Recognition	66	2.298	0.150	1.220	1.488	-0.094	0.295	-0.677	0.582
Affiliation	66	3.187	0.123	0.997	0.994	-0.392	0.295	0.563	0.582

Table 2 shows that the skewness for the data on stress management, ill-health pressure, positive health, competition, appearance, and nimbleness are more than twice its standard error (2×.295) and also have negative sign. In other words these six parameters are not the real motives for exercise for most of the subjects in female category. On the other hand kurtosis values of stress management, ill-health pressure, and positive health are positive as well as significant because its values are greater than twice of its standard error (2×.582). Thus, the distribution of these three parameters are leptokurtic, which shows that there is a less variation of the scores on these four parameters around their mean. In other words responses of female towards these three parameters were homogeneous.

In order to compare different subscales of exercise motives in both age groups i.e. 21-40 & <40 in female category, t-test was applied. Except ill-health pressure all remaining sub-scales of exercise motivation were found to be insignificant. Results of the analysis are shown in Table 3.

Table 3. *t*-test for the data on ill-health pressure obtained on female in 21-40 yrs & >40 yrs age categories

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Ill - health pressure	Eql. Var. Assu.	10.332	0.003	-3.18	35	0.003	-0.969	0.305
	Eql. Var. not Assu.			-3.11	19.49	0.006	-0.969	0.312

From Table 3, it can be seen that the average of ill-health pressure scores in both age categories of female differs as the t value (=-3.18) is significant because its *p*-value (=0.03) is less than .05. Further, average ill-health pressure score of the age group A (21-40) is less than that of the group B (>40), and therefore, it may be concluded that the ill-health pressure derives females for exercise more in the age group >40 rather than 20-40. The means plot of the analysis is shown in Figure 1.

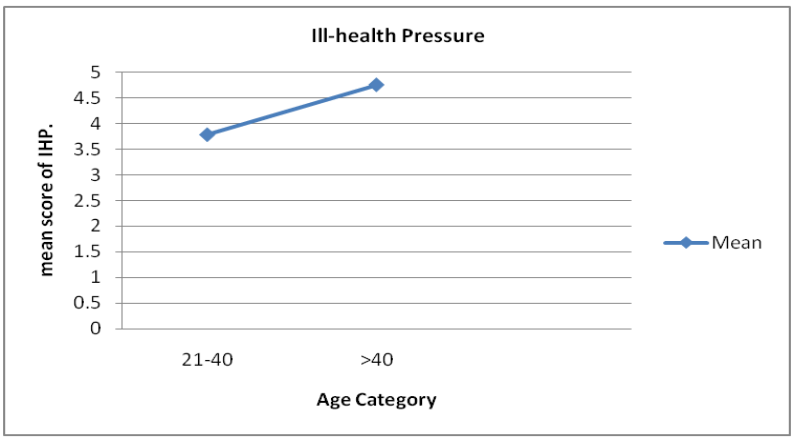

Fig. 1. Means plot for the data on ill-health pressure in two different age categories

In order to compare different subscales of exercise motivation in three age groups i.e. <20, 21-40, and >40 in male category, analysis of variance was applied. Out of 14 subscales F values for only three namely appearance, revitalization and enjoyment were found to be significant. The results of the analysis are shown in Table 4.

Table 4. One Way ANOVA for the data on different subscales of exercise motives in different age categories of male

Factors	Variance	SS	df	MS	F	Sig. (p-value)
Appearance	Between	11.874	2	5.94	4.471*	**0.015**
	Within Groups	83.67	63	1.33		
	Total	95.54	65			
Revitalization	Between Groups	10.78	2	5.39	5.39*	**0.002**
	Within Groups	64	63	1.02		
	Total	74.78	65			
Enjoyment	Between Groups	9.694	2	4.85	3.981*	**0.024**
	Within Groups	76.71	63	1.22		
	Total	86.4	65			

From Table 4 it can be seen that the average appearance score in all the three age categories differs as the p-value associated with F (=4.471) is .015 which is less than .05. Similarly F-values of revitalization (p<.01) & enjoyment (p<.05) are also significant.

Since F values of all the three parameters were significant the post hoc analysis was applied using Tukey test. The means plot of all the three parameters are shown in Figure 1, 2, and 3.

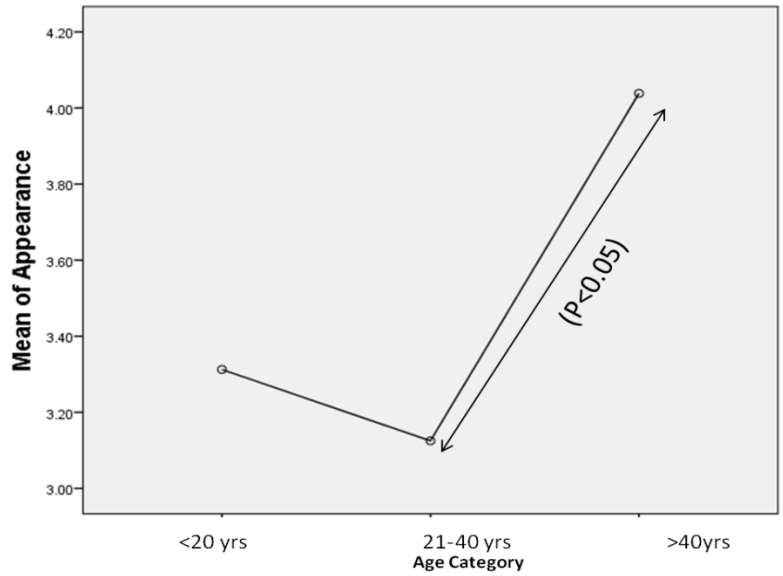

Fig. 1. Means plot for the appearance scores in three different age categories of male

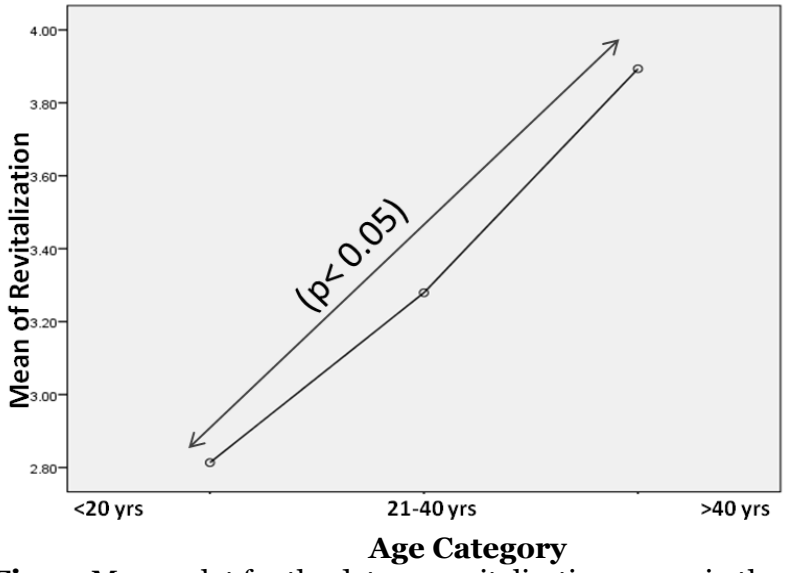

Fig. 2. Means plot for the data on revitalization scores in three different age categories of male

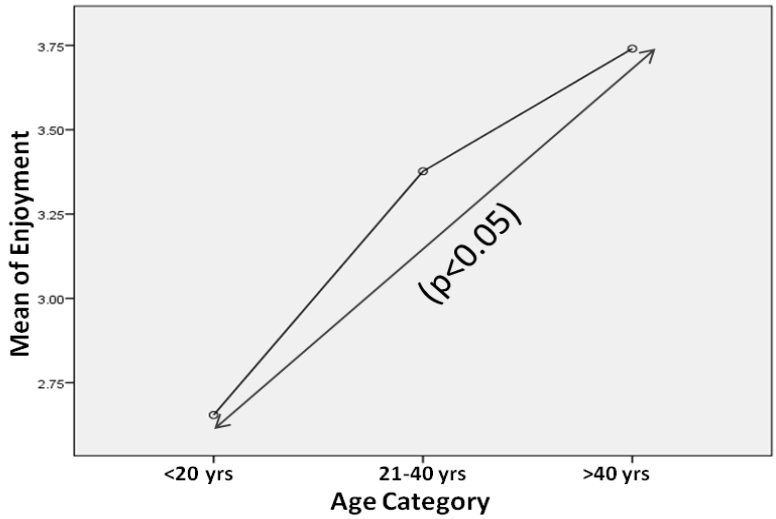

Fig. 3. Means plot for the enjoyment scores in three different age categories of male

Figure 1 indicates that the appearance scores of male is significantly higher in more than 40 years age category in comparison to the remaining two age categories i.e <20 years and 21 to 40 years. Figure 2 and 3 indicates that the revitalization and enjoyment scores of male is significantly higher in more than 40 years age category in comparison to <20 years category.

In order to compare different subscales of exercise motivation in male and female in each of the two age categories i.e. 21-40 & >40, t-test was applied. Except appearance in 21-40 years age category and ill-health pressure and weight management in >40 years age category, all remaining sub-scales of exercise motivation were found insignificant. Results of the analysis are shown in Tables 5 and 6.

Table 5. t- test for the data on appearance between male and female in 21-40 yrs age category

		Levene's Test Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig.	MD	SE
Appearance	Eql. Var. Assu.	0.841	0.364	2.405	43	0.021	0.84	0.35
	Eql. Var. not Assu.			2.594	41.33	0.013	0.84	0.33

In Table 5 it can be seen that *t*-value (=2.405) is significant as its associated *p*-value is .021 which is less than .05. It may be concluded that the average scores of appearance motives in male and female differs. Further, the average scores on appearance of the female is more than that of the male section as shown in Figure 4. In other words female are more concerned for the appearance rather than male in 21-40 age category for doing exercise.

Table 6. t-test for data on ill-health pressure and weight management between male and female in >40 age category

		Levene's Test Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Ill-health pressure	Eql. Var. Assu.	21.57	0.001	2.51	43	0.02	0.543
	Eql. Var. not Assu.			2.81	34.72	0.01	0.543
Weight management	Eql. Var. Assu.	27.73	0.001	2.93	43	0.01	1.134
	Eql. Var. not Assu.			3.19	41.02	0.01	1.134

The t-values for ill health pressure and weight management as shown in Table 6 are significant as their p-values are less than .05. Thus it may be concluded that the average scores on ill health pressure as well as weight management differs in male & female. It may be concluded that the female are more concerned for the weight management and ill-health pressure rather than male in >40 age yrs category as shown in Figure 4.

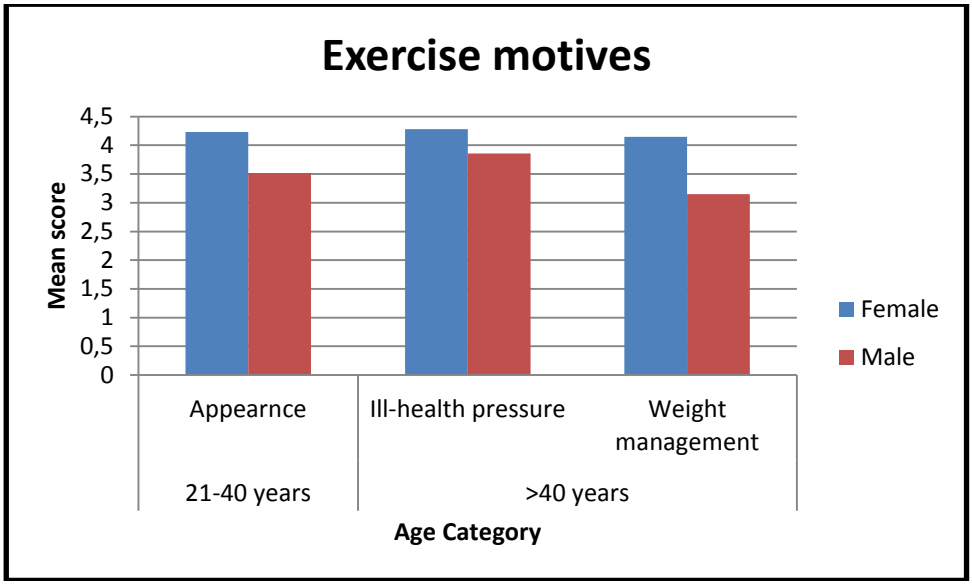

Fig. 4. Means plot for the data on appearance, ill-health pressure, and weight management in two different age categories

In order to compare different subscales of exercise motivation if female in all four socio economic classes i.e. upper class, upper middle class, lower middle class, and upper lower class, analysis of variance was applied. The results of the analysis are shown in Table 7.

Table 7. One-way ANOVA comparison of exercise motives among socio-economic status in female

		Sum of Squares	df	Mean Square	F	Sig.
Revitalization	Between Groups	9.095	3	3.032	3.664	**0.022**
	Within Groups	27.304	33	0.827		
	Total	36.399	36			
Enjoyment	Between Groups	14.28	3	4.76	4.441	**0.01**
	Within Groups	35.373	33	1.072		
	Total	49.653	36			
Positive health	Between Groups	9.952	3	3.317	4.318	**0.011**
	Within Groups	25.353	33	0.768		
	Total	35.304	36			

Table 7 shows that the average scores of revitalization in all the four socio-economic groups differs significantly as the p-value associated with F is .022 which is less than .05. Similarly F-values of enjoyment and positive health are also significant as their p-values are less than 0.05.

Since F values of all the three parameters i.e. revitalization, enjoyment, & positive health were significant hence post hoc analysis was applied using Tukey test. The means plot of all the three parameters are shown in figure 5, 6 and 7.

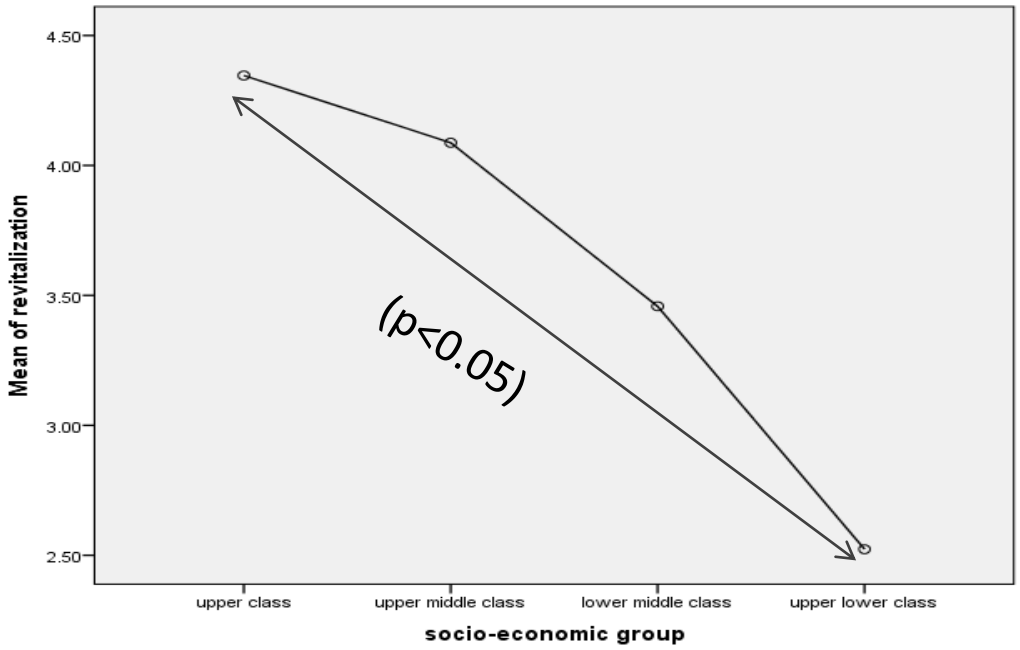

Fig. 5. Means plot for the revitalization in different socio-economic status

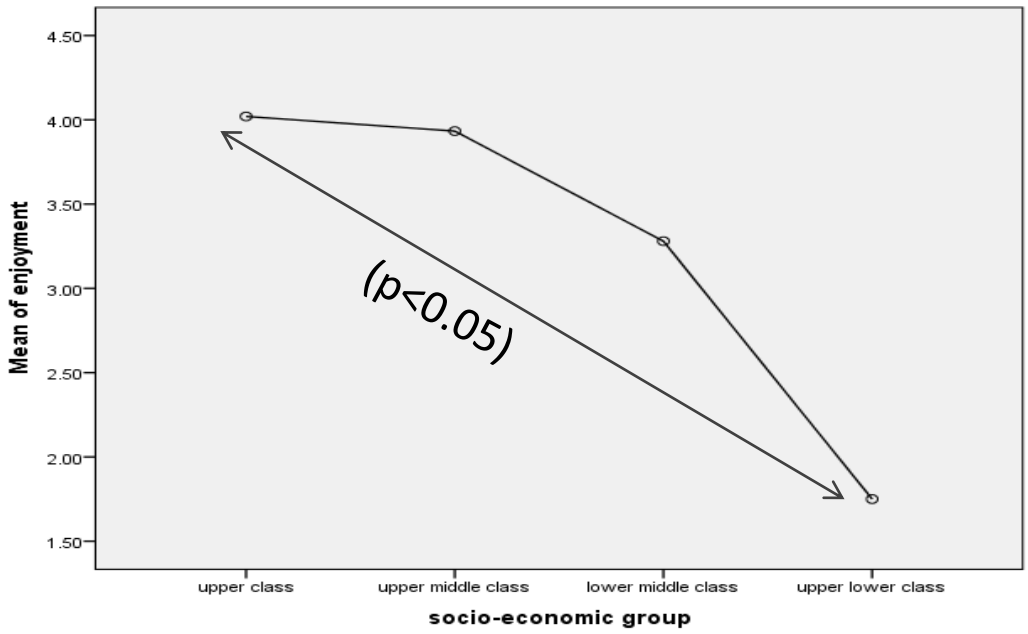

Fig. 6. Means plot for the enjoyment in different socio-economic status

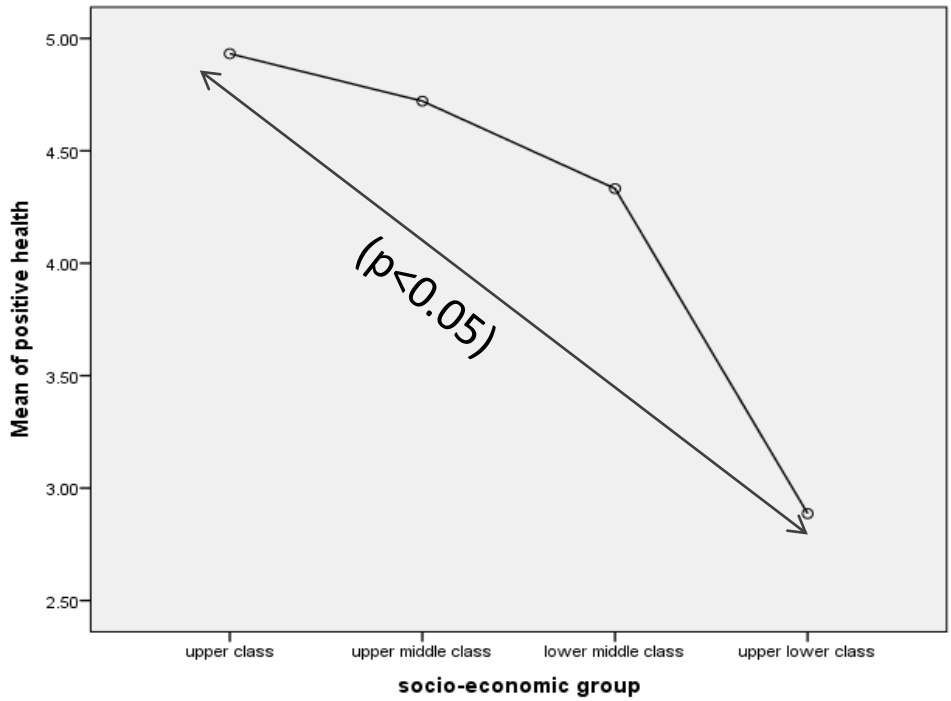

Fig. 7. Means plot for the positive health in different socio-economic status

A figure 5 indicates that the average revitalization score is significantly higher in the upper class in comparison to the upper lower class in case of female. Similar trend was observed in case of enjoyment and positive health which can be seen from the Figures 6 and 7.

4. Conclusion

Exercise motives differ in different section of the society. Further it also depends upon the gender as well. It is quite natural as the need for exercise differs as per their lifestyle, living standard & job profile.

Out of the fourteen exercise parameters only three parameters revitalization, enjoyment, and appearance were found to have significant concerned for exercising in different age categories of male. Further, male population in the age category more than 40 years had larger concerned of these three parameters for exercising in comparison to other lower age category in men. This can be attributed to the men's tendency to seek out types of activity that provide for opportunities to demonstrate mastery and competence (Kilpatrick et al., 2010) and other fact that individuals especially male, are highly engaged their professional life and might find very less time for their body image. The individuals below 20 years are also engaged in various academic and extracurricular activities, which keep their lifestyle active and less prone to the body image disturbance, and hence slightly motivated for exercise.

The study suggested that women those who are in 21-40 years age category considered appearance as the prime motives for exercising whereas female in age category more than 40 years go for exercise due to their ill-health pressure & weight management, because women have greater concern regarding their body weight than do man. Women's greater concern for weight status seems appropriate on the surface, given that younger women on an average are more likely to be overweight than their male peers (Marcus, 2010). Strong and important motives for participation in physical activity are different across type of activity, age, and gender in adults. Understanding the motives that influence physical activity participation is critical for developing interventions to promote higher levels of involvement (Molanorouzi, 2015).

It was also found that there was no significant difference among the exercise motives among the males in different socio-economic groups. It may be because of the fact that these days management and Socialization emerged to be the most important reasons for exercise for male. The Fitness / Health Management motive for exercise is not surprising because "keep fit" is a naturally reason for exercise. The health motive may reflect an increased focuses in the society on a

healthier lifestyle, and exercise is documented to be a significant factor for a healthier life (Strømme, Høstmark, 2000). The socializing motive may indicate that psychosocial aspect according to meet friends, be a part of a group is an important reason for engagement in physical activity (Ohansen et al., 2005).

Whereas in female section, only three exercise motives namely revitalization, enjoyment, and positive health differs significantly in different socio-economic groups. This may be because socio-economic status is a key factor in determining the quality of life of women, which affects the lives of children and families. Inequality in wealth and quality of life for women exist both locally and globally. Low socio economic status (SES) among women and its correlates, such as poverty, lower education and poor health for children and families, ultimately affect our society as, whole Evidence indicates that SES affects overall well-being and quality of life for women (Women, Socioeconomic Status, 2017). Another reason for differences could be the lower SES. Jeffrey & French (1996) reported that the lower SES was found to be related to the lower energy levels and less concern with weight control. Additional studies have concluded that economic deprivation, including reduced access to healthy food, may contribute to obesity for women (Jeffrey, French, 1996). Among women aged 20-45, Women who live in lower SES neighborhoods have been found to expend more energy, but undertake less moderate physical activity compared to women in higher SES neighborhoods, thus receiving less health-promoting physical exercise (Lee et al., 2007).

5. Recommendation

The similar study may be conducted in other strata of the society to have more knowledge about the exercise motives in male and female.

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