Impact of Aerobic Dance Intervention on Self Concept in Adolescent Girls

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ABSTRACT

The purpose of the study was to test the effect of aerobic dance intervention on self-concept in adolescent girls. The sample for this experiment consisted of girls (n=80) ranging from 13 to 15 years age. They were randomly divided into two equal groups, one is control and another is experimental group. Each group consisted of 40 subjects. The experimental group receives training of Aerobic Dance for a total period of 12 weeks on alternate day for 60 minutes, whereas Control group did not participate in any training program. Self-concept questionnaire of R. K. Saraswat was assessed three times during 12 weeks intervention programme, first on before starting the intervention (0 day) second after six weeks and third after 12 weeks of aerobic dance intervention. The data were analyzed by using REPEATED MEASURE ANOVA. For pre test the mean for experimental group was 188.45 (SD = 9.658) and that for control group mean was 184.63(SD = 11.417). For Mid test the mean for experimental group was 194.13 (SD = 12.738) and that for control group mean was 183.52 (SD = 12.578). For Post test, the mean for experimental group was 191.30 (SD = 16.056) and that for control group mean was 184.80 (SD = 18.386). This indicates that there was significant and useful improvement in self-concept of adolescent girls. Mean difference between experimental & control group self-concept was 6.975 (Experimental group Mean = 191.292, Control group Mean = 184.317) which was statistically significant at 0.05 significance level (p = 0.004). This indicates that self-concept of experimental group was better than control group self-concept.

Keywords : *Adolescent, Aerobic Dance, Self-Concept*

Introduction

Adolescence is the developmental period of transition between childhood and adulthood; it involves biological, cognitive and socio-emotional changes. These changes transform

the young person's vision of the self into more complex, well- organized and consistent picture. Self-conception of adolescents changes in structure as well as content. (National Association of Social Workers. (2001). Self-concept is not innate, but is developed or constructed by the individual through interaction with the environment and reflecting on that interaction. This dynamic aspect of self-concept is important because it indicates that it can be modified or changed. (Franken R. (1994). Structurally it becomes more differentiated and organized. Adolescents are more likely to employ complex, abstract and psychological self- characterization. Self-esteem, the evaluative side of self-concept is also modified during these years. Adolescent's well organized self-description and expanded sense of self-esteem provide the cognitive foundation for constructing an identity. In adolescence, school/college experience plays an important role in the development of self-perception and can have powerful and long lasting effect on the self-esteem of the adolescents. Men and women have different beliefs about their strong points and derive their self-esteem from different sources. Women in our society are judged on the basis of their physical beauty and attractiveness. Intelligence, academic excellence is considered less appropriate criteria for assessing women. In major review of research studies, the consensus is that physical attractiveness is of great importance for women than for men. (Feingold, A. (1990). During early adolescence, sometimes there is a decline in the self-esteem of girls for negative body image. Thus, proper self-concept of adolescent girls is highly essential for their daily walks of life

However there is no reference to aerobic dance intervention in improving self-concept of adolescent girls. Thus the present study is taken.

Materials and Methods

For the study experimental method was used. The design of the experiment is repeated test random group design. Population for the study will be the girls between the age group of 13-15 years studying in Pravara Kanya Vidyamandir, Loni. The convenient sample technique was used to select 80 girls as participants for the study. They were randomly divided into two equal groups; viz group I is experimental and group II is control consisted of 40 subjects each. Training intervention was delimitated to Aerobic Dance. The group I receives training of Aerobic Dance for a total period of 12 weeks, whereas group II (i.e. control group) did not participate in any training program. However, all the subjects participated in their regular school activities as per daily timetable of the school.

Pre test was administered for Self-concept questionnaire of R. K. Saraswat on both the groups. Aerobic dance intervention was given to the experimental group only for a total period of 12 weeks on alternate days; whereas control group will not participate in any training program. Mid test was administered after six weeks and post test was administered after twelve week.

The training schedule prepared by the investigator was applied to the experimental group and the training was personally supervised by the investigator with the help of Aerobics Instructor of the school who strictly followed the instructions of the investigator. The aerobic exercise group completed 12 weeks of Dance aerobics, three times per week for 60 minute per session. Participants were urged to adjust exercise intensity to maintain a heart rate of 60-80% of their age-predicted maximum, and recorded their heart rates on a chart at least once per class session to insure that they were exercising at the prescribed intensity. The instructor demonstrated variations in step exercise to accommodate for individual differences in fitness levels; therefore, all participants were able to exercise within the recommended intensity.

Aerobic Dance Intervention

While preparing a training program the investigator follows the training principles of individuality, specificity, progressive overload, load & adaptation, warm up and cool down. Participants were urged to adjust exercise intensity to maintain a heart rate of 60-80% of their age-predicted maximum, and recorded their heart rates on a chart at least once per class session to insure that they were exercising at the prescribed intensity. The instructor demonstrated variations in step exercise to accommodate for individual differences in fitness levels; therefore, all participants were able to exercise within the recommended intensity.

Self-Concept Test

Self-concept questionnaire of R. K. Saraswat was used to assess the self-concept. Reliability of the inventory was found by the test retest method, and it was found to be .91 for the total self-concept measure.

Description: The self-concept inventory provides six separate dimensions of self-concept, viz., Physical, Social, Intellectual, Moral, Educational and temperamental Self-concept. It also gives a total Self-concept score. The inventory contains 48 items. Each dimension contains eight items. Each item is provided with five alternatives. Responses are obtained on the test booklet itself. There is no time limit but generally 20 minutes have been found sufficient for responding all the items. Instructions for the time of administration of the inventory are also given on the booklets.

Statistical Analysis

Table 1 shows the mean of self-concept score of experimental and control groups Pre test, mid test & Post test.

Table 1 : Descriptive Statistics: Self Concept

Test	Group	Mean	Std. Deviation	N
Pretest	Experimental	188.45	9.658	40
	Control	184.63	11.417	40
	Total	186.54	10.682	80
Midtest	Experimental	194.13	12.738	40
	Control	183.52	12.578	40
	Total	188.83	13.662	80
Posttest	Experimental	191.30	16.056	40
	Control	184.80	18.386	40
	Total	188.05	17.460	80

Table 2 : Tests of Between-Subjects Effects: Self Concept

Source	Sum of Squares	Df	Mean Square	F	Sig.
Intercept	2821632.401	1	2821632.401	25528.791	0.001
Group	973.013	1	973.013	8.803	0.004
Error	8621.142	78	110.527		

From Table 2, 'F' value for group comparison was 8.803 which was statistically significant at 0.05 significance level (p = 0.004).

Table 3 : Tests of Within-Subjects Contrasts: Self Concept

Source	factor1	Sum of Squares	Df	Mean Square	F	Sig.
factor1	Level 1 vs. Level 2	418.612	1	418.612	2.340	0.130
	Level 2 vs. Level 3	48.050	1	48.050	0.192	0.662
factor1 * Group	Level 1 vs. Level 2	918.013	1	918.013	5.131	0.026
	Level 2 vs. Level 3	336.200	1	336.200	1.343	0.250
Error (factor1)	Level 1 vs. Level 2	13954.375	78	178.902		
	Level 2 vs. Level 3	19523.750	78	250.304		

From Table 3, for factor wise comparison level 1 & level 2, 'F' value was 2.340 and level 2& level 3 was 0.192 both are not statistically significant at 0.05 significance level. For interaction between group and factor at level 1 & level 2, 'F' value was 5.131 which

was statistically significant at 0.05 significance level (p = 0.026), but for level 2 & level 3 'F' value was 1.343 which was not statistically significant at 0.05 significance level (p = 0.250)

Table 4 : Group * factor1: Self Concept

Group	Factor 1	Mean	Std. Error
Experimental	1	188.450	1.672
	2	194.125	2.001
	3	191.300	2.729
Control	1	184.625	1.672
	2	183.525	2.001
	3	184.800	2.729

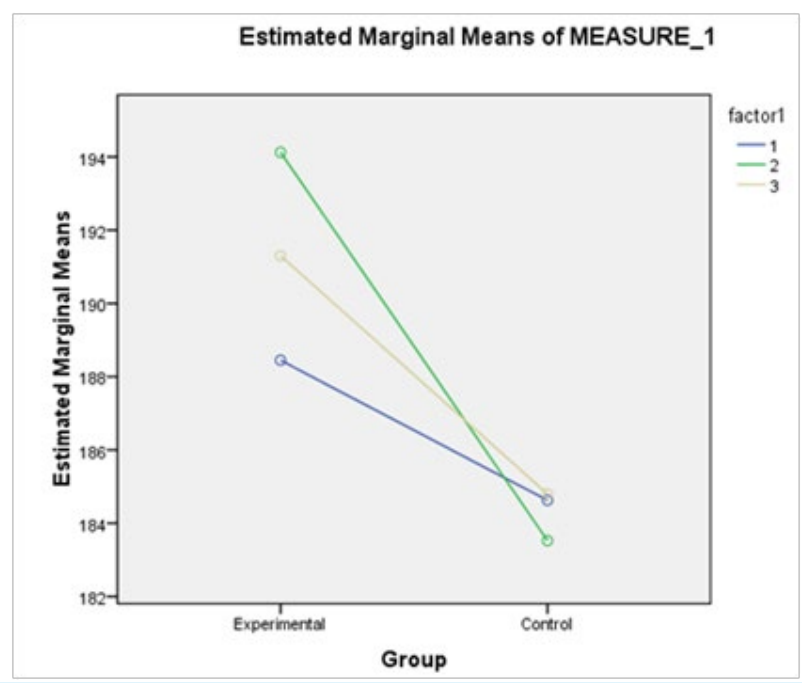

Figure 1: Graphical representation of test wise Self concept

Results

There is interaction effect at level 1 & level 2 of experimental and control group. For experimental group there was increase in self-concept score by 5.675 (188.450 to 194.125),

but in control group there was decrease in performance by 1.100 (184.625 to 183.525) in level 1 & level 2.

This indicates that increase in performance in experimental group was statistically significant than decrease in performance of control group in level 1 & level 2 respectively.

Discussion

Present study result indicated the dance aerobic program to exert significantly greater effects on the development of the self-concept. The results of this study about the self-concept is in correspondence with the studies of Asci (2003), Annisson and Muller (2003), Goni and Zulaika (2000), Stein, Motta (1992), Schneider & Dunton (2008). Schneider and Dunton studied the effect of a physical exercise session on self-concept of schoolchildren. The results of this research showed that physical exercise has a positive effect on various components of adolescent's self-concept. The results also revealed that physical exercise has a positive effect on the physical fitness of adolescents. The researchers argued that the positive effect of physical exercise on children's physical fitness improves their perception of self and consequently their self-concept. Although each of the above mentioned researchers used different programs with different time and intensity, they all showed the direct relation with physical training and self concept. The significant improvement observed in the self concept data of the adolescent girls in the present study.

Psychologists believed that if the physical training occurs in healthy situation, it will effect on person's state on mind. Girls in the athletic environments develop their social awareness, controlling feeling, understanding their own social weaknesses, gaining new experiences, adjusting their past experiences and their social features. It seems that the Dance Aerobic exercises can provide the person with positive feelings about his physical abilities and positive effects of aerobic exercises. It can be said that participating in physical training causes the person's physical ability which itself causes the change in evaluation of physical abilities which leads to increase in self-concept.

Conclusion

The observation of the experimental data, within limitations, help to conclude that– Through the Aerobic dance program there was significant and useful improvement in self concept of adolescent girls.

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BACK TO INDEX