

# Impacts of Recreational Creative Dance on Select Physiological Variables: A Study on Adult Bengalee Males

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**Abstract::** Dance, a popular form of tradition recreational activity has been practised for centuries particularly by females. Recently, there has been an increase in interest about creative type of dance; that involves fusion of different dance forms from many cultures. In this backdrop, an attempt has been made to assess the impact of the recreational creative dance in terms of select physiological variables in Bengalee males receiving training and practising it about 2 hours daily for last six years. On obtaining permission from both the institutional authorities and individuals, the study was conducted on 18 male volunteers of age range 25-40 years [Exercising Group (EG)]; they were receiving training and performing creative dance forms for at least about 6 years with a regular practise for about 2 hours. and 36 male individuals of the comparable age and socio-economic status but not receiving training in any form of exercise or dancing [Control Group (CG)]. The obtained results were analysed and compared, with  $P < 0.05$  considered as statistically significant. It may be concluded that adult Bengalee males, practising creative dancing, have significantly better ( $P < 0.05$ ) body composition and body physique status compared to their non-dancing counterparts.

## 1 Introduction

Dance, a form of physical activity [2, 12], is a sequence of non-verbal rhythmic body movements of creative nature. It has been an enjoyable form of performing art. In India, among several forms of dance, traditional classical dance, has been traditionally practised, but recently, a new dance form - Creative dance, is gradually becoming popular [9]. It has an innovative approach and is modern interpretation of cultural diversity and richness. It involves wide range of movements, like standing, sitting, jumping, and turning with scope for flexibility [10, 12]. It has been reported that regular practicing of Indian classical dancing helps in maintaining better body composition [1, 2, 5, 6] and cardio - respiratory fitness [3]. But very few studies have investigated the impacts of Creative dancing. In this backdrop, the present study has been undertaken to assess the impact of a popular Indian creative dance, on select physical and physiological parameters of Bengalee male adult dancers.

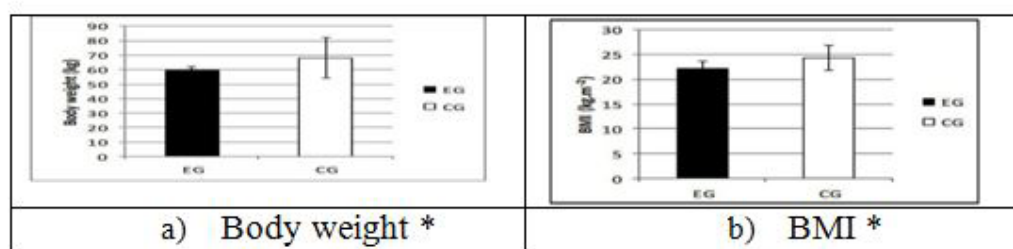
## 2 Methodology



Institutions imparting training on Creative dancing were approached for required permission to carry out the study on the male individuals practicing it. 18 males (age range 25-40 years), receiving training in Creative dancing for at least 6years and practicing it daily for a minimum period of 2 hours were selected to constitute the Exercising group (EG)[ 26]. 36male individuals of the comparable age and socio – economic status, but not receiving training in any form of exercise or dancing constituted the Control Group (CG). Information about their age in complete years, daily activities, food habits, socio-economic condition was recorded first in pre-designed schedules. The anthropometric variables in terms of body height (cm) to the nearest 0.1cm and body weight (kg) with an accuracy of 0.1kg with individuals in light clothing and without shoes were measured using anthropometric measurement set and electronic scale respectively; BMI was calculated. Waist Circumference (WC), at the umbilical level with the subjects standing and breathing normally and Hip Circumference (HC), at the maximum circumference over the buttocks with the arms relaxed at the sides, were measured using a non-stretch measuring tape [8] and Waist Hip Ratio (WHR) was calculated [4, 7,25]. Body fat was also estimated anthropometrically. Obtained data were analyzed. P value lower than 0.05 ( $P < 0.05$ ) was considered significant.

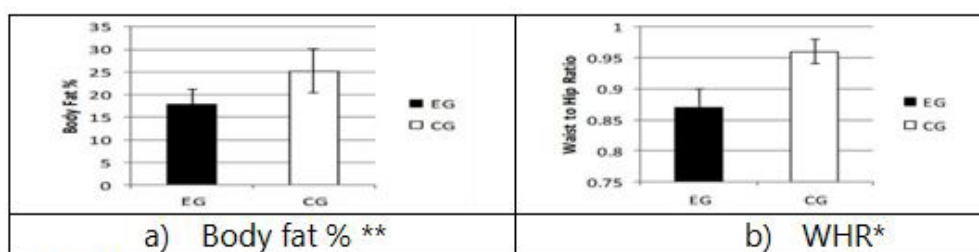
### 3 Results

Present study was conducted on 18 and 36Bengaleemale adults residing in and around Kolkata, constituting EG and CG respectively. The individuals of EG and CG had no significant difference in respect of age, body height and socio – economic status. In figures 1 and 2, comparisons between EG and CG individuals have been presented in terms of the body weight (1.a), BMI (1.b), body fat% (2.a) and WHR (2.b).It has been found that body weight, BMI, body fat% and WHR of the EG individuals are significantly ( $P < 0.05$ ) lower compared to CG individuals.



\* $P < 0.05$

**Fig. 1** Comparison between EG and CG individuals in respect of body weight (a), BMI (b),



\* $P < 0.05$

**Fig. 2** Comparison between EG and CG individuals in respect of body fat % (a) and WHR (b)

## 4 Discussions

The increasing prevalence of non-communicable diseases worldwide is a major public health problem of any society [15]. Evidences indicate that the negative impact on physiology of sedentary lifestyle is one of the contributing factors to this challenge [10, 16, 20, 23]. Different intervention strategies have been attempted [21, 22] and dancing, as a physical exercise, is a growing choice [17, 18, 19]. Earlier studies have reported many beneficial impacts of Indian classical dancing in female individuals of different age [4, 6, 9]. Hence, the present study hypothesized that regular practicing of Creative dancing may have some impact on body composition status of adult male individuals making it an acceptable physical exercise to bring an active lifestyle.

In the present study the mean BMI, of EG individuals is found to be significantly lower ( $P < 0.05$ ) compared to their CG counterparts (fig 1b); the latter fall under overweight category whereas the former is within the normal weight category [32,33,34], in agreement with earlier studies [11, 13, 14, 22, 20]. As BMI grossly gives the obesity status of the individuals, which takes into account of the total body weight without considering the fat distribution [24, 25], a further elaboration was done by calculating body fat% [30]. The mean value of body fat % of EG individuals has also been found to be significantly lower ( $P < 0.05$ ), compared to their CG counterparts (fig 2a). It has been found that the mean value of WHR, an index for central obesity, of EG individuals is significantly lower ( $P < 0.05$ ), compared to their CG counterparts (fig 2b). High WHR values are associated with mortality and many clinical conditions such as cardiovascular diseases, type 2 diabetes and like, the CG individuals are at a risk of suffering from them [26,27, 28,29]; this is also in consonance with earlier studies done on adult Bengalee female individuals involved in regular Kathak [32, 33] and Bharatnatyam dancing [31, 6].

## 5 Conclusion

The result of the present study indicated that the male individuals practising creative dancing have better body composition and body physique status compared to their non-dancing counterparts.

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