

Impact of Zumba Training in Stress Management among students

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ABSTRACT

Background: Stress is common in student's life. There are many stress factors. Most of these stress factors increasing incidence of stress related lifestyle diseases. Exposure to stress needs to be managed by avoiding situations that will give rise to stress. Strategies to cope up with stress need not be complicated or expensive. A simple program of regular exercise is all it takes to reduce stress related health issues. Exercise can even eliminate some internal causes of stress, which are related to one's frame of mind and outlook on life. Zumba is a type of intervention which produces positive effects in reducing stress and improves quality of life.

Objective: The objective of this study is Impact of Zumba training in stress management among students

Method: 30 participants were included in the study. All the participants received Zumba training for 3 weeks as a measure to reduce stress. The stress was evaluated by Perceived Stress Scale (PSS) Questionnaire at the beginning and after 3 weeks of Zumba training to study changes in their stress level. Data analysis was done using Pre & Post paired test.

Result: Stress was evaluated by using pre and post PSS scores of all the participants. The results showed significant reduction in their stress level.

Conclusion: We conclude that 'Zumba' is an effective intervention to reduce stress among students.

Keywords: Stress response, Dance therapy, Exercise fitness programme, Well-being, Preventive measure

INTRODUCTION

Stress is a normal physical response to events which disturbs day to day life or makes you feel scared. ^[1] Stress has been experienced since ancient times, but it has been worse in the 21st century. ^[2] In modern times, stress is responsible for more than fifty percent of all illness.

Stress response is an unconscious avoidance of something that produces anxiety or unpleasant emotions in the body. When stressed, a body thinks it is under attack and it prepares either to stay & fight or to get away as soon as possible. Insignificant amount of stress can be handled by our body which helps to stay focused, enthusiastic, vigilant, tireless & active. ^[1] But beyond a certain point, stress stops being helpful and starts causing major damage to health, mood, productivity and quality of life. It is also linked with numerous physical and emotional disorders including depression, anxiety, heart attack, stroke, hypertension, immune system disorders, sleep disturbances etc.

There are three types of stress. Acute stress is the most common type and also known as the fight or flight response. It's body's immediate reaction to a new challenge, event, or demand. The response is triggered by the release of hormones that prepare our body to either stay and deal with a threat or to run away towards safety. Isolated episodes of acute stress should not have prolonged health effects. If acute stress happens very often, it's called episodic acute stress. Negative health effects are persistent in episodic acute stress. When acute stress isn't resolved and begins to aggravate or lasts for long periods of time, it becomes chronic stress. This stress is constant. Chronic stress can be detrimental to our health, as it can contribute to several serious health risks, such as suicide, self-harm. This type of stress is brought about by long-term exposure to stressors, such as traumatic experiences, unwanted career or job, stress of poverty, chronic illnesses, relationship conflicts, and dysfunctional families. These stressful situations seem to be unending, and the accumulated stress that results from exposure to them can be life-threatening. ^[3]

In recent days, various innovative techniques like aerobics, power yoga, meditation, relaxation, zumba are emerging to deal with stress. But, among today's generation "Zumba" is most preferable modern technique because of its desirable effects on health. Zumba dance is a fitness program which is accepted globally. It includes rhythmic movements and focuses on entire body. This is a perfect blend of fitness and entertainment. Zumba is basically a dance form that has evolved in the 21st century.

Approximately 15 million people conducts weekly Zumba classes in over 200,000 locations right across 180 countries. Zumba classes are typically 45-60 minutes long. ^[4] The basic steps & variation to four of the Zumba core rhythms (Merengue, Salsa, Cumbia & Reggaeton) are taught by instructors licensed by Zumba Education Specialist (ZES). It's a type of dance therapy that involves the combination of Latin rhythms and several easy to follow movements with different form of styles involving Cumbia, Salsa, Hip hop music, Merengue, Mambo, Flamenco, Chachacha, Reggaeton, Soca, Samba, Axé music and Tango.

According to the American Dance Therapy Association (ADTA) Zumba dance involves numerous movements, which can improve the emotional, cognitive, physical and social integration of an individual. Dance provides various benefits for the body and mind. Thus, one can learn & practice relaxation technique through Zumba dance to deal with stress. ^[5] Zumba is the perfect workout to get rid of all that stress accumulates during the day. The optimistic moves to this type of workout favour the release of those mood-boosting endorphins. These changes will reflect immediately to reduce stress and also improve self-confidence. ^[6]

As per consideration of the general population, it is believed that students face a lot of stress in their daily life. They experience stress from many sources including academic workload, lack of experience, new roles & responsibilities and poor interpersonal relationship. The stress experienced among the students could negatively affect their future; hence effective stress management is very much essential. ^[7]

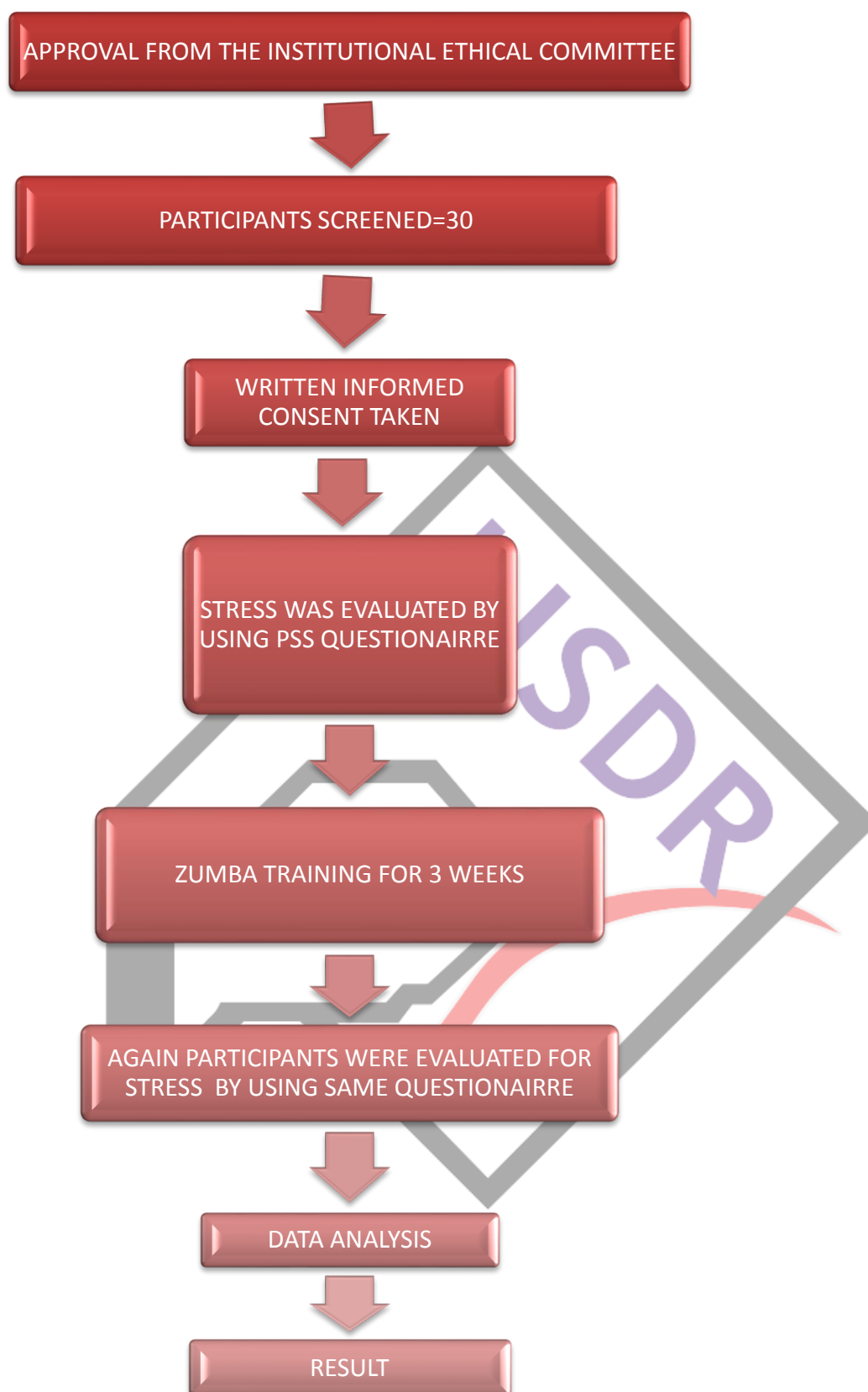
Dancing is fascinating, charming and pleasant form of physical activity that gets even more attractive and dynamic when performed as a group activity. Due to an increase in neural connections and blood flow, it boosts attention and cognitive abilities. In addition, it brings greater motivation for physical exercise and also improves quality of life. ^[8]

Need for the study: Stress is an unavoidable consequence of modern living. Student's life is full of work deadlines, difficulty in organizing work, increased level of competition, peer pressure, frustrations, financial issues and demands which are contributing factors responsible for stress that eventually results in physical and psychological health problems. Moreover, due to advancement in technology and workload in academics they prefer staying indoors rather than being outdoors. This sedentary lifestyle has a tendency to enforce obesity in individuals. Stress has been linked to bodily changes that can trigger cravings and lead to obesity. Nowadays Increase in stress would exert a negative impact on health and psychosocial development of students. Therefore this study is undertaken to evaluate the effect of Zumba training in students and how it is going to impact on their stress level. Further, it will help them to cope up with stress barriers.

MATERIALS AND METHODS:

The study received approval from Institutional Ethical Committee (Ref no PIMS/CPT/IEC/2018/589) of Dr. APJ Abdul Kalam College Of Physiotherapy, Pravara Institute of Medical Sciences, Loni. The participants were selected as per the inclusion criteria ranging in the age group of 18 to 25 years and willing to participate in the study. They were recruited using a convenient sampling method and explained about the intervention. Individuals with recent trauma, recent surgery, musculoskeletal disorders which limits mobility, cardiovascular and respiratory diseases, Individuals involved in other physical activities like heavy weight lifting, swimming etc. were excluded. The participants were explained about the type of study benefits and hazards. Then informed written consent was obtained from the participants regarding the procedure prior to the study.

30 participants were recruited for the study. Perceived Stress Scale was used as outcome measure to evaluate stress. PSS questionnaire scoring was done before and after Zumba training. The participant's attendance was recorded and maintained for 3 weeks. Each session was conducted for 45 minutes 3 days per week. After 3 weeks of Zumba training same questionnaire was given to study changes in their stress level.



Statistical Analysis:

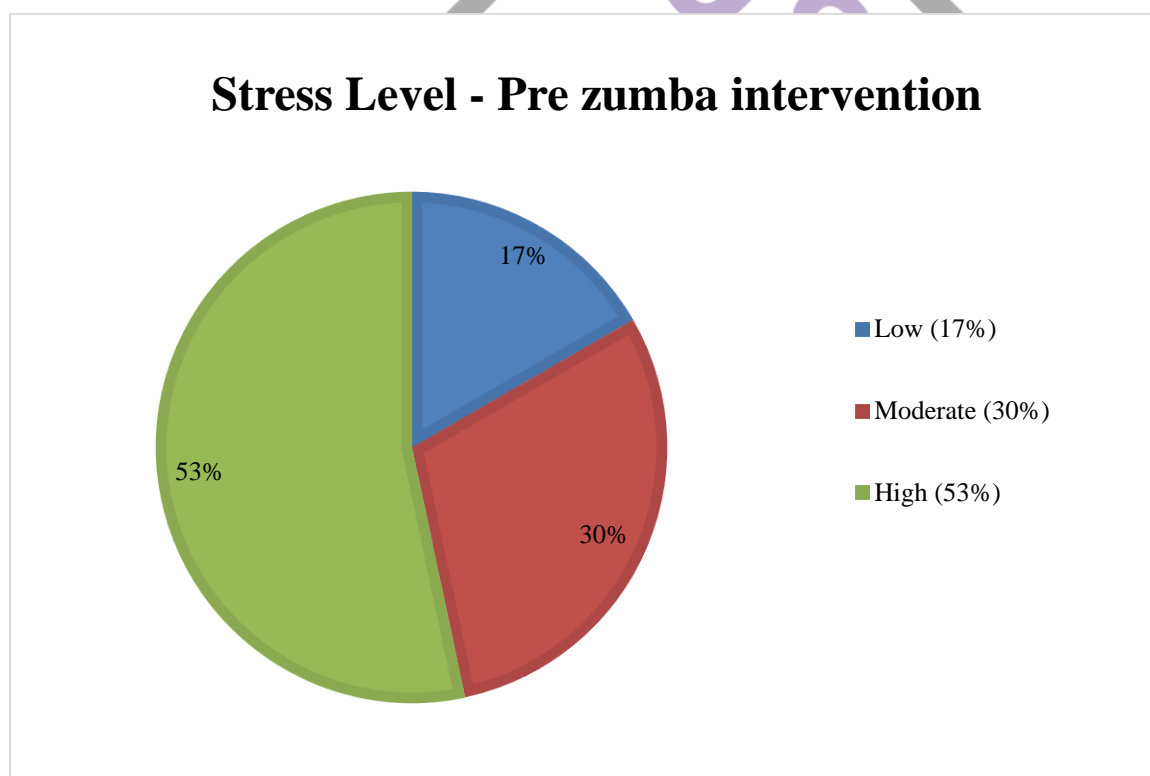
The present study “Effect of Zumba training in stress management among students” was conducted in Loni, Taluka Rahata District Ahmednagar, Maharashtra, India. Thirty participants were evaluated using Perceived Stress Scale (PSS). Data for each participant was collected and recorded by the principal investigator. The stress level was evaluated for Pre and Post Zumba training. The data was coded and entered into Microsoft Excel spreadsheet version 2010.

RESULTS:

The result of this study showed that Zumba intervention was highly significant to reduce stress in individuals.

GRAPH 1**Stress Level before Zumba Intervention by PSS**

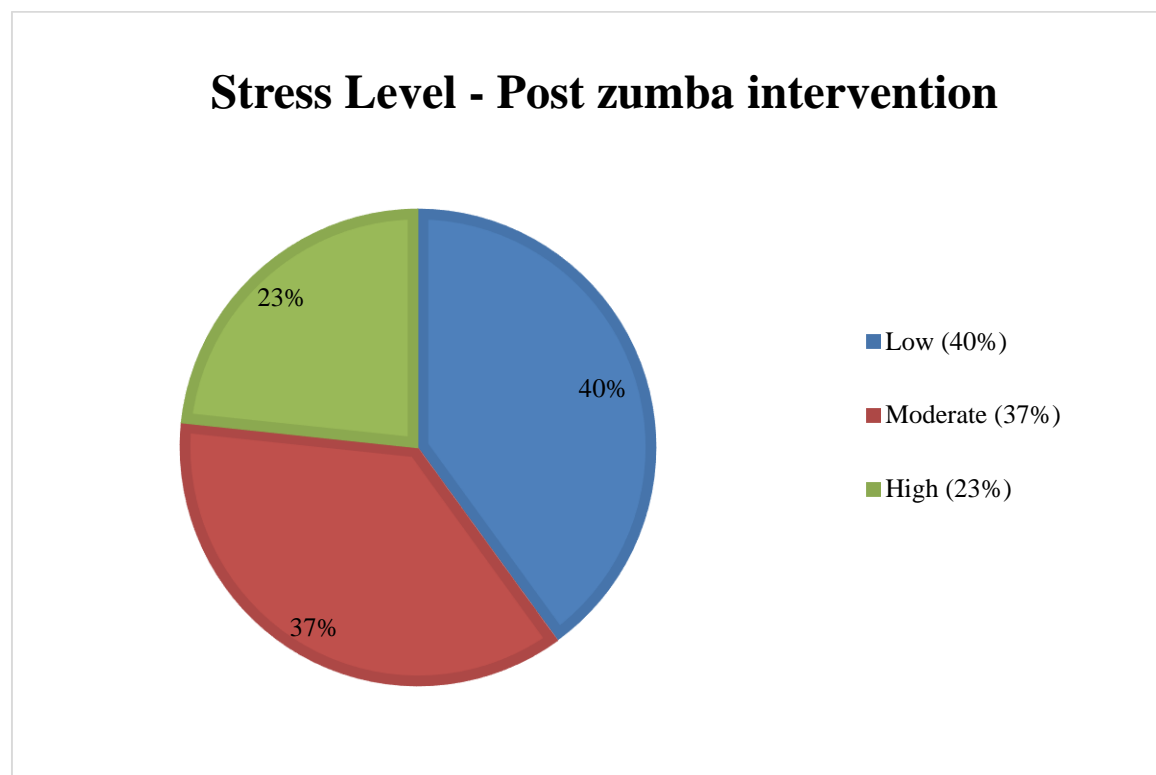
Stress Level	Participants	Percentage
Low (17%)	5	17
Moderate (30%)	9	30
High (53%)	16	53
Total	30	100



RESULT: The above Pie chart indicates percentages of participants in all three groups viz. Low, Moderate & High stress level before Zumba training.

Graph 2**Stress Level after Zumba Intervention by PSS**

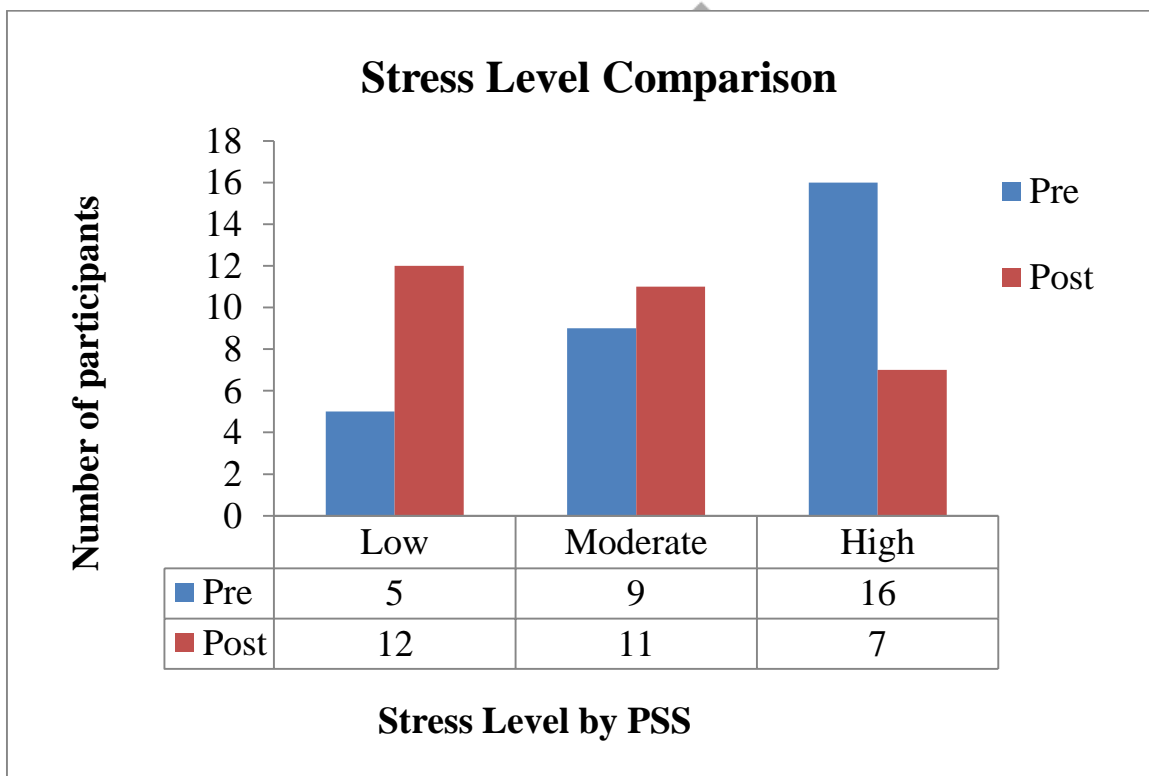
Stress Level	Participants	Percentage
Low (40%)	12	40
Moderate (37%)	11	37
High (23%)	7	23
Total	30	100



RESULTS: The above Pie chart indicates percentages of participants in all three groups viz. Low, Moderate & High stress level after Zumba training.

GRAPH 3**Comparison of PSS Score before and after Zumba Intervention**

Stress Level	Participants	
	Pre	Post
Low	5	12
Moderate	9	11
High	16	7
Total	30	30



Results The above Bar chart indicates the comparison of stress level between pre & post Zumba training. Comparison is done for three groups viz. Low, Moderate & High as per decided PSS score limit. Comparison shows significant reduction in stress level after Zumba training.

DISCUSSION:

The present study IMPACT OF ZUMBA TRAINING IN STRESS MANAGEMENT AMONG STUDENTS was conducted in Dr. A. P. J. Abdul Kalam College of Physiotherapy, Loni, Taluka Rahata, District Ahmednagar, Maharashtra, India. 30 participants were recruited to assess stress by using Perceived Stress Scale (PSS) questionnaire. The main purpose of this study is to find out the effectiveness of Zumba in stress among students. In this study, 30 participants were provided with PSS questionnaire at the beginning and at the end of 3 weeks of Zumba training. The level of stress was evaluated Pre and Post PSS scores. The result showed that Zumba is effective tool of intervention to reduce stress.

According to Pre zumba PSS scoring, 16 participants indicate high level of stress, 9 participants indicate moderate level of stress and 5 participants indicate low level of stress before Zumba training. 53% of total number of participants who attended Zumba represents high stress category, 30% represents moderate stress category, 17% represents low stress category.

According to Post zumba PSS scoring, 7 participants indicate high level of stress, 11 participants indicate moderate level of stress and 12 participants indicate low level of stress before Zumba training. 23% of total number of participants who attended Zumba

represents high stress category, 37% represents moderate stress category, 40% represents low stress category. This proves Zumba has a positive effect on stress among students by lowering their stress level. Results of our study are identical to the study done by Nur Liyana Hannah Izham Akmal et al (2017).

In modern life, Physical inactivity is a commonly observed cause of increasing incidence of lifestyle diseases. Zumba is becoming a world-wide dance activity to reduce lifestyle disease epidemic. It has a combination of popular entertaining music with a different dance styles and aerobic exercises which improves the health of all age groups. Therefore, physiological effects of zumba can be used as a conservative medicine for prevention of various lifestyle diseases.

The neurological effects of dance which requires a complex mental coordination synchronizing music and movement. Dance constitutes a pleasurable intervention where brain's stress centres are stimulated by music and sensory motor circuits are activated by dance.

Benefits gained from the physical activity associated with dance connect with benefits that range from memory improvement to strengthened neuronal connections.

Zumba intervention improves cardiovascular endurance and cardio-respiratory function.

It contributes to strengthen the muscles involved in respiration and to facilitate the flow of air in and out of the lungs. It also helps in strengthening and enlarging the heart muscle which improves its pumping efficiency and reduce the resting heart rate. In addition, zumba increases circulation efficiency and reduces blood pressure.

Physical activity improves energy metabolism, improved vascularity, improved posture, mobility as well as the stability of joints, strengthens the muscles and improved support to the skeletal framework. Furthermore, it improves balance and co-ordination. This intervention benefits in reducing weight, BMI and incidence of obesity.

An effect of zumba on reproductive system includes improvement in hormonal profile like menstrual regularity and reproductive function. Psychological response of this exercise fitness programme appears effective in increasing psychological well-being and quality of life. Further it can help in improving psychosocial health. Zumba intervention can be used universal as non-pharmacological form of promotive and preventive measure for various lifestyle diseases.

Limitations of the study were conducted on fewer participants and for short duration of period. In future, zumba can be preferred as everyday workout to improve quality of life.

Future study may be conducted using larger number of samples with longer duration to discover its desirable effects. It would be interesting to evaluate the effects of Zumba fitness program on the reduction of body fat observed over the long period and continuous exercise. Further research can be conducted to compare the effectiveness of Zumba fitness program to the other group fitness programs.

CONCLUSION:

The present study concluded that Zumba training can be utilized as measure to reduce stress among students. Furthermore Zumba was considered an effectively significant tool in generating positive effects on physical and mental health.

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