Effectiveness of Aerobic Dance on the Quality of Life of the Students with Premenstrual Symptoms

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ABSTRACT
Premenstrual symptoms are commonly affecting 80% of women. Among the youngsters the premenstrual symptoms commonly affects the daily activities and frequent absenteeism among the college students. So, the investigator was interested in providing intervention to reduce the symptoms. Written consent was obtained from the samples and PMS diary was distributed and instructed to maintain for a month. Quality of life was assessed with WHOQOL bref tool. Among the 122 population, 97 samples with PMS were selected by lottery method. Aerobic dance was given to the samples for a duration of 50 minutes every day for 5 days in a week for a duration of three months. Again, PMS diary was distributed to all the samples and monitored for 2 months. Quality of life was assessed with the same tool. After the drop out only 92 samples were analysed. The outcome of this study was, there is significant reduction in the severity of premenstrual symptom and improvement in the quality of life. The physical, psychological, social relationship and environmental aspects shows significant difference at P≤0.05 level. This study proved the effectiveness of Aerobic dance in the improvement of quality of life of the students with premenstrual symptoms.

Keywords: aerobic, dance, quality

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INTRODUCTION
Adolescence age group straddling between 10 and 19 year, 15 and 24 years age group as youth, both contributing the age group of 10–24 years, defined by World Health Organization (2014) [1]. Adolescents have complete energy, significant determination and new ideas. They are a positive coerce of the Nation and are responsible for its future productivity. Adolescence is the period of transition from childhood to adulthood [2]. Rapid physical growth and development is crucial during this period. As growth and development progresses, maturation in the girls occurs through development of secondary sexual characters known as puberty [3].

Globally 1.1 billion are Adolescents among the general population and 1 in every 5 human on this planet is an Adolescent. 1 in every 3 person is young people contribute both to adolescent and youth in the age group of 10–24 years as stated by Dr. Chandra Mouli 2011 [4]. According to United Nations population prospects report in the year 2010, about 27.7% (one-fourth) of the female population between 15 and 29 years in India.

Objectives
(1) To assess the quality of life of the students with the premenstrual symptoms before the intervention in the experimental group.
(2) To compare the quality of life of the students with the premenstrual symptoms after the intervention in the experimental group.

(3) To correlate the quality of life of the students with the premenstrual symptoms before and after the intervention in the experimental group.

Effectiveness
In this study, it refers to the outcome of quality of life as evidenced by reduction of severity of premenstrual symptoms and improvement of quality of life among the college students during the premenstrual period in the experimental group [5].

Overall Premenstrual Symptoms
In this study, the overall premenstrual symptoms are measured by self-monitored premenstrual symptoms diary for a period of two months. It includes physical, psychological, behavioral and pain symptoms.

Students
In this study student refers to the girls in the age group of 17–23 years those who were in a selected community area at Tirupur.

Quality of Life
Quality of life refers to the ability to perform daily activities and how they feel about their well-being. The items categorized under the domains, physical well-being, psychological well-being, social relationships and environment.

Aerobic Exercises
In this study aerobic exercise refers to aerobic dance for the duration of 50 minutes, 5 days in a week for 3 months [6]. In this study, it includes three phases, warm up phase, aerobic dance and cool down phase. Aerobic dance for a duration of 30 minutes. Cool down phase was ten minutes.

Null Hypothesis
Ho_1: There will be no significant difference between the quality of life of the students with premenstrual symptoms before and after the intervention [7].

Methods and Procedures
Research Approach
Research approach adopted for this study was Quasi experimental approach. The researcher intended to compare the effect of Aerobic dance on the quality of life of the students with premenstrual symptoms.

Research Design
The research design adopted for this study was Quasi experimental time series design. The research design is represented diagrammatically as follows.

Experimental group: 0_1, 0_2 X_1 0_3, X_1 O_4, X_1, O_5, O_6, O_7.

X_1: Aerobic Exercises

0_1, 0_2: Pretest assessment of premenstrual symptoms before the intervention in the experimental group in the first month and second month. In the first month WHOQOL bref tool was used to assess the Quality of Life among the participants of the study.

0_3, 0_4, 0_5: Posttest Assessment of premenstrual symptoms after the intervention in the experimental group, in the third, fourth and fifth month cycles.

0_6, 0_7: Assessment of premenstrual symptoms in the experimental group I in the following sixth and seventh cycles. WHOQOL bref tool was used to assess the quality of life after the intervention.

X_1-Intervention: Aerobic exercises refers to Aerobic dance for the duration of 50 minutes five days in a week for three months. It includes three phases, warm up phase, aerobic dance and cool down phase. Warm up phase for a duration of 10 minutes and each movement for 16 counts. Aerobic Dance for a duration of 30 minutes. Cool down phase was ten minutes. It was administered by the trained researcher. It was administered by the trained researcher.

VARIABLES

Independent Variables

It is the variable hypothesized to the outcome variable of interest. In this study, the independent variable was Aerobic dance for the participants of the study with premenstrual symptoms.

Dependant Variables

It is the variable hypothesized to the depend on or to be caused by another variable. It was the Level of PMS and Quality of life among students with premenstrual symptoms.

Accessible Population

Students those who were in selected community area undergoing undergraduate programme with premenstrual symptoms.

Participants of the Study

Students with premenstrual symptoms who fulfills the inclusion criteria.

Sample Size

Out of 97 participants, 92 participants were at the end of the study in experimental group.

Sampling Technique

In the community the students were screened randomly by using the premenstrual symptoms checklist. students with premenstrual symptoms were selected as participants of the study. They were asked to enter in the premenstrual symptoms diary based on the severity of symptoms.

Inclusion Criteria

- Students who were willing to participate in the study.
- Students with regular menstrual cycle.
- Age between 17 and 23 years.

Exclusive Criteria

- Students do not have PMS symptoms.
- History of diseases such as asthma, diabetic, renal, cardiac, psychiatric, thyroid, epilepsy or on medication.
- History of menstrual problems such as, menorrhagia, metrorrhagia, polycystic ovary disease.

Setting

Selected community at Tirupur district.

Tools and Techniques

The following instruments were used for data collection.

1. PMS Diary

Scoring and Interpretation

It is a four point scale. Minimum score for each question was 1 and maximum score for each question was 4.

No symptom-1; Mild symptom-2; Moderate symptom-3; Severe symptom-4.

2. World Health Organisation BREF Quality of Life Tool.

It consists of 26 items. physical health-7 item, psychological health-6, social relationship-3, environmental health-8, general aspect-2

Scoring and Interpretation

Each question carries 1 mark. Minimum mark is 1 for each question and maximum 5 mark. 3 questions had negative scoring. 2 in physical health and 1 in psychological health.

Data Analysis and Interpretation

Table 1 depicts the mean score and standard deviation of the various domains on quality of life before and after the intervention in the experimental group. the physical, psychological, social relationship and environmental aspects shows significant difference at $P \leq 0.05$ level.

Table 2 shows the significant improvement in the quality of life after the intervention in the group. There was significant difference at $p \leq 0.05$ level. Hence, null hypothesis $H0_1$ is rejected.

Table 1. *Mean score and standard deviation on overall and various domains on QOL before and after intervention and its level of significance in experimental group.*

QOL	Before intervention			After intervention			Mean difference	t-value P≤0.05
	Mean	Mean %	SD	Mean	Mean%	SD		
Physical	21.39	61.1	2.74	27.73	79.2	2.69	6.34	21.84
Psychological	17.76	59.2	1.65	22.27	74.2	1.79	4.51	20.56
Social relationship	6.28	41.9	0.45	7.68	51.2	0.78	1.4	14.16
Environment	18.59	46.5	1.35	23.99	60.0	2.82	5.4	21.23
Overall quality of life	70.27	54.1	3.55	88.78	68.3	4.53	18.51	43.23

Table 2. *Comparison of mean and standard deviation of quality of life before and after the intervention between the experimental group.*

Quality of life	Before		After		t value p≤0.05	df
	Mean	SD	Mean	SD		
Exp. GP.	70.27	3.55	88.78	4.53	43.23*	91

*Significant table value = 1.99.

CONCLUSION
Thus, the results of this study projected well the effectiveness of aerobic dance on the premenstrual symptoms and their Quality of life. This can be implemented in the nursing practice.

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