



A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF AEROBIC DANCE MOVEMENT THERAPY ON ANXIETY LEVEL AMONG ADOLESCENT GIRLS IN SELECTED GOVT. SCHOOL OF GURUGRAM, HARYANA.

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ABSTRACT

Adolescent period is not an age of problems and frustrations, in most of them it is golden age of adventure, romance and creativity. It is the period in life when an individual is having time, energy, creativity and a spirit of trying new things. Adolescents form above nearly one fifth of the total population of India and are significant proportion of the world's adolescent population. It is understandable that the occurrence of various psychosocial stressors during the transition from the adolescent to childhood is inevitable. Anxiety is among the most common mental, emotional and behavioural problems that occur during childhood and adolescent. Adolescent girls who suffer from excessive anxiety regularly experience a range of physical symptoms like muscle tension and cramps, Stomach Aches, headaches, pain in the limbs & back, fatigue or discomfort associated with pubertal changes. Anxiety in adolescent of great importance because anxiety in adolescent are associated with negative outcomes including peer relationship difficulties, academic failure and later onset of co morbid disorders including major depression and alcohol abuse. Aerobic dance is known to have powerful effect of the mind, body, and emotions. Aerobic dance movement is a type of therapy that uses movement to further the social, cognitive, emotional and physical development of the individual. Aerobic movement Dance therapy is often an easy way for a person to express emotions, even when his/her experience is so traumatic he or she can't talk about

Key words: Aerobic dance movement therapy; Anxiety; adolescent girls.

INTRODUCTION

- Adolescent is an age of creativity, Idealism, and adventure, if nurtured properly they can contribute eventually to themselves to become good individual or citizen for development of nation. Adolescence is a period of many critical transitions - physical, Psychological, economic, and social. Adolescents are full of energy, have significant drive and new ideas. They are a positive force for a nation and are responsible for its future productivity provided they develop in a healthy manner. Many mental health problems emerge in late childhood and early adolescence. Enhancing social skills, problem solving skills and self-confidence can help prevent mental health problems such as conduct disorders, anxiety, depression, and eating disorders as well as other risk behavior. WHO (2003)¹
- Anxiety is among the most common mental, emotional and behavioral problems that occur during childhood and adolescent. Adolescent girls who suffer from excessive anxiety regularly experience a range of physical symptoms like muscle tension and cramps, stomach Aches, headaches pain in the limbs & back fatigue or discomfort associated with pubertal changes Collins(2010)²
- Anxiety in adolescent of great importance because anxiety in adolescent are associated with negative outcomes including peer relationship difficulties, academic failure and later onset of co morbid disorders including major depression and alcohol abuse Gail and Bernstein(2011)Therapy Association)³
- Aerobic dance is known to have powerful effect of the mind, body, and emotions. Aerobic dance movement is a type of therapy that uses movement to further the social, cognitive, emotional, and physical development of the individual Aerobic therapy is often an easy way for a person to express emotions, even when, his/her experience is so traumatic he or she can't talk about it(American dance therapy Association)⁴

MATERIAL AND METHODS

Research Design

A pre experimental research design with the Quantitative Research evaluation, research approach was adopted for this study. A review of literature was done related to anxiety among adolescent girls and literature related to effectiveness of aerobic dance movement therapy on anxiety level.

Statement of problem

A Pre-Experimental Study to Assess the Effectiveness of Aerobic dance movement Therapy on Anxiety level Among Adolescents girls at selected school, Gurugram Haryana

Aim of the study

To assess the effectiveness of aerobic dance movement therapy on anxiety level among adolescent girls at selected school Gurugram Haryana.

Research Question

How much level of anxiety among adolescent girls

Objectives of the Study

1. To assess the level of anxiety among adolescent girl
2. To evaluate the effectiveness of Aerobic dance movement therapy on anxiety level among adolescent girls
3. To find out the Association of post-interventional anxiety level among adolescent girls at selected school with their selected demographic variable.

Operational Definitions

- **Effectiveness:** In this study effectiveness refers to the extent to which the Aerobic Dance Movement Therapy has impact on the reduction of anxiety among adolescent girls as measured by Zung self- rating anxiety scale {SAS}
- **Aerobic Dance Movement Therapy:** Aerobic Dance movement is a therapy in which can use to improve social skill, problem solving skill, and self- confidence. In this study Aerobic dance movement therapy is given by the investigator for 30 minutes, once a day.

Aerobic dance movement therapy will be implemented through four phases.

- Preparation Phase
- Incubation Phase
- Illumination Phase
- Evaluation Phase
- **Anxiety:** It refers to natural and important emotion experienced by adolescent girls, signalling through sense of worry, apprehension, fear, shy, & distress which alarm that a danger or a sudden Threatening change.
- **Adolescent Girls:** It refers to girls who were in the age group of 16-18 years studying in selected Schools of Gurugram Haryana and would be able to perform Aerobic Dance Movement Therapy.

Variables under Study

Age, Religion, Type of family, Mothers education, Fathers education, income, Occupation, residence, Standard of education, Weight, Height.

Assumptions

In the present study it is assumed that:

1. The study adolescent girls have some level of anxiety.
2. Aerobic dance movement therapy will be effective in reducing the level of anxiety among Adolescent girls

Delimitations

1. The Present study was delimited to adolescent girls in age group of 16 to18 years selected school of Gurugram Haryana

Conceptual Framework

Conceptual framework for the research study was based upon helping art of clinical nursing Theory given by Wiedenbach's (1964)

Setting

The physical location and conditions in which data collection has taken place in a study is setting of the study. The present study was conducted in selected School of Gurugram Haryana

Sample and Sampling Technique

Population

The population of the study was the adolescent girls in the age Group of 16 to 18 years studying in selected schools of Gurugram Haryana

Sample

Sample consists of a subset of the unit that composes the Population. The Sample for this study consisted of 60 adolescent girls in the age group of 16 to 18 years, who fit into the inclusion criteria.

Sampling Technique

The purposive sampling technique was used for the present study

Inclusion Criteria

1. Adolescent girls in the age group of 16 to 18 years.
2. Adolescent girls who can read Hindi / English.
3. Adolescent girls who scored in mild to severe level of anxiety.

Exclusion Criteria

1. Adolescent girls who are not available during the data collection period.
2. Adolescent girls who are not willing to participate in the study.
3. Adolescent girls with physical illness and physical disabilities
4. Adolescent girls who scored in normal anxiety level

Sampling Size

In present research study the sample size was 60 adolescent girls. Government Senior Secondary School Gurugram Haryana

Ethical Consideration

The proposed study was conducted after the approval of the ethics committee of government girl's senior secondary Gurugram, Haryana, and Permission was obtained from the Principals of Government senior secondary girl's schools at guru gram, Haryana Verbal assurance was given to the adolescent girls and written consent was obtained.

- Government high school gurugram Haryana
- Government girls Senior Secondary School Gurugram Haryana

Data collection Tools and Technique

In the present study, based on the objectives the tools were divided into 2 sections:-

1. Personal variables of participants {demographic data}
2. Structured Zung Self-Rating Anxiety Scale {SAS}

Validity of the Tools

The validity of the tools was obtained by submitting the tools 9 experts and it was valid. All the rectification was as suggested by the experts.

Reliability of the tools

Reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring. The reliability of the tool was found ($r=0.86$) by Split-half method and the tool was considered as fit for proceeding with pilot study

Procedure for Final data collection

Formal permission was obtained from the concerned authorities to conduct the final study by using purposive sampling technique according to research design.

After obtaining formal administrative permission, final study was conducted in the month of December 2019 at government Sr. Sec. girls School Guru-gram Haryana

Consent for participation from the subject the students of age group 16-18 years were selected. Pre-test was conducted using Zung Self-Rating Anxiety Scale (SAS) to access the level anxiety among 120 adolescent girls, in that it was found 60 adolescent girls had mild to severe anxiety. The intervention was given from the next day to the subject in government girls Sr. Sec. School. The intervention had four phases (1) Preparation phase, (2) incubation phase, (3)illumination phase, (4) evaluation phase Investigator assured the subjects about the confidentiality of the data The intervention was given for a period of 15 days for 30 min per day. After 15 days post-test was given to the group

RESULTS AND DISCUSSION

Section: 1 Description of selected demographic variables of Adolescent girls

Table: 1 Frequency Percentage Distribution of Demographic Variables among Adolescent Girls

N= 120

S. No.	Demographic characteristics		Frequency (f)	Percentage (%)
1	AGE	<15 Years	19	32%
		15- 16 Years	31	52%
		16 - 17 Years	9	15%
		>17 Years	1	2%
2	RELIGION	Hindu	57	95%
		Muslim	2	3%
		Christian	1	2%
		Sikh	0	0%
		Any other	0	0%
3	TYPE OF FAMILY	Nuclear Family	53	88%
		Joint Family	5	8%
		Extended Family	1	2%
		Single Parent family	1	2%
4	MOTHER'S EDUCATION	No Formal Education	14	23%
		Primary Education	26	43%
		Secondary Education	18	30%
		Diploma	1	2%
		Degree and Above	1	2%
5	FATHER'S EDUCATION	No Formal Education	7	12%
		Primary Education	22	37%
		Secondary Education	31	52%
		Diploma	0	0%
		Degree and Above	0	0%
6	INCOME	Below than 10,000	36	60%
		Rs 10001 -20000	20	33%
		Rs. 20001-30000	4	7%
		More than 30000	0	0%
7	OCCUPATION	Farmer	6	10%
		Daily wage earner	5	8%
		Private Employee	41	68%
		Government Employee	4	7%
		Others	4	7%
8	RESIDENCE	Urban	32	53%

		Rural	28	47%
9	STANDARD OF EDUCATION	9th Class	37	62%
		10th Class	23	38%
10	WEIGHT	Below than 40 kg	13	22%
		40-50 kg.	29	48%
		51-60 kg.	18	30%
		60 Above	0	0%
11	HEIGHT	Below then 140 cm	5	8%
		140 - 145 Cm	38	63%
		146 - 150 Cm	15	25%
		150 Cm Above	2	3%

Table-1 depicts that majority of Adolescent girls with anxiety in group 31(52%) were in age group of 15-16 years. (95%) belonged to Hindu religion, 88% were belongs to nuclear family, (43%) were from primary education, (52%) were belongs to secondary education, (60%) were belongs in below than 10,000 monthly income of the family, (68%) were belongs to private employee, (53%) were belongs to urban area, (62%) adolescent girls were belongs to 9th class, (48%) were belongs to 40-50 kg weight of adolescent girls, (63%) were belongs to 140-145cm height status.

SECTION-2: FINDINGS RELATED TO PRETEST AND POST TEST ANXIETY SCORE AMONG GIRLS

Table No: 2 Findings Related to Pre-test Anxiety Score among Adolescent Girls

N=120

S. No.	Level of Anxiety	Range	PRETEST	
			Frequency (f)	Percentage (%)
1	Normal Range	(20-44)	42	41.1
2	Mild to moderate anxiety level	(45-59)	35	34.3
3	Marked to severe anxiety levels	(60-74)	24	23.5
4	Extreme anxiety level	(75-80)	1	0.9
Maximum score=80 minimum score=20				

Table-2 Represented that findings related to anxiety score among adolescent girls, in that Pre-test was conducted using Zung Self-Rating Anxiety Scale (SAS) to access the level anxiety among 120 adolescent girls, in that it was found 60 adolescent girls had mild to severe anxiety, this table represented that before the administration of aerobic dance movement therapy 42(41.1%) of adolescent girls have normal range of anxiety and 35(34.3%) of adolescent girls have mild to moderate anxiety level and 24(23.5%) of adolescent girls have marked to severe anxiety level and 1(0.9%) of adolescent girls extreme anxiety levels.

Table No: 3 Findings Related To Pre-test and Post-test Anxiety Score among Adolescent Girl**N=60**

S. No.	Level of Anxiety	Range	PRETEST		POSTTEST	
			Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
1	Normal Range	(20-44)	0	0	31	51.7
2	Mild to moderate anxiety levels	(45-59)	35	58.3	29	48.3
3	Marked to severe anxiety levels	(60-74)	24	40	0	0
4	Extreme anxiety levels	(75-80)	1	1.7	0	0

Maximum score=80 minimum score=20

Table-3 Represent that findings related to pre-test and post test anxiety score among adolescent girl, before the administration of 'Aerobic dance movement therapy' 35(58.3%) of adolescent girls have mild to moderate of anxiety level and 24(40%) of adolescent girls have marked to severe anxiety level, and 1 (1.7%) extreme anxiety level, where after administration of 'aerobic dance movement therapy' 31(51.7%) of adolescent girls have normal level of anxiety level and 29(48.3) mild to moderate anxiety level ,and none of adolescent girls had marked to severe and extreme level of anxiety.

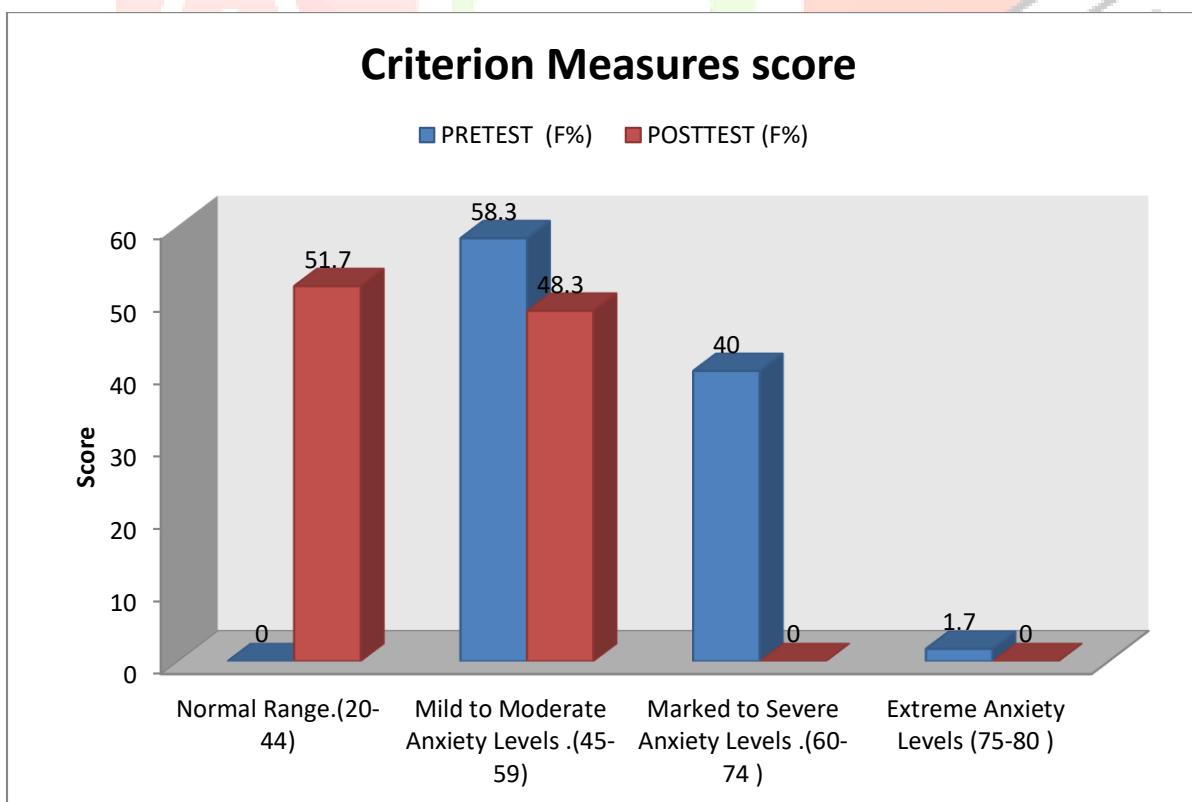
**FIGURE-1 FINDINGS RELATED TO PRETEST AND POST TEST ANXIETY SCORE AMONG ADOLESCENT GIRL**

Figure Represent that findings related to pre-test and post-test anxiety score among adolescent girl before the intervention, the pre-test score of anxiety level among adolescent girls 35(58.3%) had mild to moderate anxiety had severe anxiety 24(40%) had extreme anxiety 1(1.7%) and none of them had no anxiety. After the intervention the post-test in group none of them had marked to severe and extreme anxiety, had normal anxiety 31(51.7%) had mild to moderate anxiety 29 (48.3%)

SECTION: 3 FINDINGS RELATED TO PAIRED 'T' VALUE OF COMPUTED BETWEEN PRETEST AND POST TEST ANXIETY SCORES AMONG ADOLESCENT GIRLS

Table: 4: Mean, Mean Percentage, Standard Deviation Range Mean Differentiate and T Test of the Pre-test and Post Test Anxiety Score of Adolescent Girls

N=60									
S. No	Paired t test	Mean \pm S.D.	Mean %	Range	Mean difference	Paired t test	P value	Table Value at 0.05	Result
1	Pre-test anxiety scale	57.9 \pm 5.8 94	72.40	45-75	13.050	22.131	<0.001	2.00	significant
2	Post-test anxiety scale	4.85 \pm 5.5 57	56.10	28-56					

** significance level 0.05 maximum=80 minimum=20, t=2.00

Table-4 represented that mean, mean percentage, standard deviation range mean differentiate Paired "t" value of computed between pre-test and post-test Practice scores of anxiety among adolescent girls after intervention in group, the mean score level of anxiety was 72.40 in protest and 56.10 in post-test. Calculated paired t test value was 22.131 was found to be more than table value. This data had indicated that there was significant reduction of anxiety level, hence research hypothesis was accepted.

SECTION: 4**FINDINGS RELATED TO ASSOCIATION OF POST INTERVENTIONAL ANXIETY WITH SELECTED DEMOGRAPHIC VARIABLES**

This section deals with the findings related to the association between post-test anxiety scale and selected demographic variables. The chi-square test was used to determine the association between the scores levels and selected demographic variables in group

Table No: 5 Associations of Post-test Anxiety Scale Scores with Selected Socio-Demographic Variables**N=60**

S. No	Variables	Category	Normal Range	Mild to Moderate Anxiety Levels	Marked to Severe Anxiety Levels	Extreme Anxiety Levels	Chi Test	P Value	df	Table Value	Result
1	AGE	<15 Years	11	8			2.700	0.440	3	7.815	Not Significant
		15- 16 Years	14	17							
		16 - 17 Years	6	3							
		>17 Years	0	1							
2	RELIGION	Hindu	30	27			1.092	0.579	2	5.991	Not Significant
		Muslim	1	1							
		Christian	0	1							
		Sikh	0	0							
		Any other	0	0							
3	TYPE OF FAMILY	Nuclear Family	26	27			2.155	0.541	3	7.815	Not Significant
		Joint Family	3	2							
		Extended Family	1	0							
		Single Parent family	1	0							
4	MOTHER'S EDUCATION	No Formal Education	8	6			4.498	0.343	4	9.488	Not Significant
		Primary Education	10	16							
		Secondary Education	11	7							
		Diploma	1	0							
		Degree and Above	1	0							
5	FATHER'S EDUCATION	No Formal Education	6	1			3.723	0.155	2	5.991	Not Significant
		Primary Education	10	12							
		Secondary Education	15	16							
		Diploma	0	0							
		Degree and Above	0	0							
6	INCOME	Below than 10,000	21	15			3.737	0.154	2	5.991	Not Significant
		Rs 10001 -20000	7	13							
		Rs. 20001-30000	3	1							
		More than 30000	0	0							

7	OCCUPATION	Farmer	4	2				4.429	0.351	4	9.488	Not Significant
		Daily wage earner	1	4								
		Private Employee	20	21								
		Government Employee	3	1								
		Others	3	1								
8	RESIDENCE	Urban	21	11				5.350	0.021	1	3.841	Significant
		Rural	10	18								
9	STANDARD OF EDUCATION	9th Class	23	14				4.258	0.039	1	3.841	Significant
		10th Class	8	15								
10	WEIGHT	Below than 40 kg	7	6				0.045	0.978	2	5.991	Not Significant
		40-50 kg.	15	14								
		51-60 kg.	9	9								
		60 Above	0	0								
11	HEIGHT	Below then 140 cm	3	2				0.840	0.840	3	7.815	Not Significant
		140 - 145 Cm	18	20								
		146 - 150 Cm	9	6								
		150 Cm Above	1	1								

Table-5 represented that with the findings related to the association between post test anxiety scale and selected demographic variables it is noted from the table 9 that chi-square value shows that there is significance association between the score level and demographic variables. There is no significance association between the level of scores and other demographic variables. The calculated chi-square values were less than the table value at the 0.05 level of significance and hence the result is not significant at 5% level. From the analysis it is concluded that there is no close relationship between the demographic variables of the respondents and level of anxiety in group

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REFERENCES

- 1) Basavanhappa B.T. [2003]. —Nursing Research|.1st edition, Bangalore: Jaypee brothers' medical publishers, page (118)1
- 2) Caplan Geral.d [1964], — principles of preventive psychiatry| New York: Wiley, page 1-49.2
- 3) Gail.W. Stuart and Machele, T.Laria (2005). —principles and practice of psychiatric nursing|, 7th edition, Philadelphia, Mosby health science company, page 860-874.3
- 4) Gupta S.P [1998]. —Statistical methods|. 28 th edition, New Delhi: sultanchand and sons' publishers, page 60-74.4
- 5) Kaplan and sadock [2000]. —comprehensive and textbook of psychiatry|. Volume.1, 7th edition, U.S.A: Lippincott Williams and Wilkins, page 1096-1102.
- 6) Kothari.C.R. (2007). —Research Methodology Methods and Techniques|. Second edition. New Delhi: Wiswa parkas publication PP No.39-67.
- 7) Dr (Mrs) K. Lalitha [2007] —mental health and psychiatric nursing- an Indian perspective “ second edition, V.M.G publishers, page 588-594.
- 8) Mary C. Townsend [2006]. Psychiatric Mental Health Nursing- Concepts of care in Evidence Based Practice. |5 th edition, new Delhi: Jaypee publishers, page 208-214.56
- 9) Polit and Hungler [1999], —Nursing research and biostatistics|, 1st edition, Thiruchirpalli, Subain publications. page 860-874.
- 10) Sreevani R [2007], —A guide to mental health and psychiatric nursing|, New Delhi, Jaypee brothers and publishing company, page 102-107.
- 11) Sunder Rao and Richard J (1998) —An introduction to biostatistics|, 3rd Edition, practice hall of Indian private ltd. Page 160-174.
- 12) Waynew.Daniel,(2001).Biostatistics a foundation for analysis in health science.(7th edition)
- 13) Wesly.L.Ruby (1995).Nursing theory and model.(second edition) pennsyllcania.spring house corperation.
- 14) Wolmal,B.B.(1965).hand book clinical psychology. (1st ed). New york.Mc Graw-Hill.

15) Wolters kulwer., (2002). *Psychiatric nursing contemporary practice*. (4th ed). Mosby Publications.

16) Janković, Marušić, & Boban, (2013,) Alotaibi, A., Karkou, V., and van Der Linden, M. L. (2017). "Movement therapy programme with children with mild learning difficulties in primary schools in Saudi Arabia: links between motion and emotion," in *The Oxford Handbook of Dance and Wellbeing*, eds V. Karkou, S. Oliver, and S. Lycouris (Edinburgh: Queen Margaret University, 479–492.¹

17) Randal Beaton (2013) Burzynska, A. Z., Jiao, Y., Knecht, A. M., Fanning, J., Awick, E. A., Chen, T., et al. (2017). White matter integrity declined over 6-months, but dance intervention improved integrity of the Fornix of older adults. *Front. Aging Neurosci.* 9:59. doi: 10.3389/fnagi.2017.00059.²

18) Leste and Rust, (2012) Lewis, C., Annett, L. E., Davenport, S., Hall, A. A., and Lovatt, P. (2014). Mood changes following social dance sessions in people with Parkinson's disease. *J. Health Psychol.* 21, 483–492. doi: 10.1177/1359105314529681.⁵

19) Leste and Rust, (2012) Lewis, C., Annett, L. E., Davenport, S., Hall, A. A., and Lovatt, P. (2014). Mood changes following social dance sessions in people with Parkinson's disease. *J. Health Psychol.* 21, 483–492. doi: 10.1177/1359105314529681.⁵

20) Jeong. et.al (2012) Vancea, F. (2013). Unifying personal development through dance, movement, and the increase of the emotional intelligence level. *J. Exp. Psychother. Psihoter. Exp.* 16:3.⁶

21) Lundy & Guffin, (2011) Abraham, A., Hart, A., Andrade, I., and Hackney, M. E. (2018). Dynamic neuro-cognitive imagery improves mental imagery ability, disease severity, and motor and cognitive functions in people with Parkinson's disease. *Neural Plast.* 2018:6168507. doi: 10.1155/2018/6168507.⁷

22) Mandler and sarason University of London (2014) Adam, D., Ramli, A., and Shahar, S. (2016). Effectiveness of a combined dance and relaxation intervention on reducing anxiety and depression and improving quality of life among the cognitively impaired elderly. *Sultan Qaboos Univ. Med. J.* 16, 47–53. doi: 10.18295/squmj.2016.16.01.009.⁸

23) Goodill. et.al, (2013) ADTA American Dance Therapy Association (2018). Available online at: www.adta.org⁹

24) Parslow. et.al, (2012) Aithal, S., and Karkou, V. (2018). Backing the backbones—a feasibility study of effectiveness of dance movement psychotherapy on parenting anxiety in caregivers of children with Autism Spectrum Disorders. *Arts Psychother.* 64, 69–76. doi: 10.1016/j.aip.2019.04.003.¹⁰

25) Truppi (2011) Allet, L., Müller-Pinget, S., Punt, I., Edelsten, C., Ballif, A., Golay, A., et al. (2017). Dance therapy combined with patient education improves quality of life of persons with obesity: a pilot feasibility study for a randomised controlled trial. *Obes. Res. Clin. Pract.* 11, 79–87. doi: 10.1016/j.orcp.2016.03.005.¹¹

26) Palusk&Schwenk (2011) Aweto, H. A., Owoeye, O. B., Akinbo, S. R., and Onabajo, A. A. (2012). Effects of dance movement therapy on selected cardiovascular parameters and estimated maximum oxygen consumption in hypertensive patients. *Nig. Q. J. Hosp. Med.* 22, 125–129.¹²

27) Fatai A. Maruf (2014), Berrol, C. F. (2000). The spectrum of research options in dance/movement therapy. *Am. J. Dance Ther.* 22, 29–46. doi: 10.1023/A:1005518409716.¹³

28) Dr.Hendry N. williford (2013)Boehm, K., Cramer, H., Staroszynski, T., and Ostermann, T. (2014). Arts therapies for anxiety, depression, and quality of life in breast cancer patients: a systematic review and meta-analysis. *Evid. Based Complement. Altern. Med.* 2014:103297. doi: 10.1155/2014/103297.¹⁴

29) Bengainstoek(2013).Burgess, G., Grogan, S., and Burwitz, L. (2006). Effects of a 6-week aerobic dance intervention on body image and physical self-perceptions in adolescent girls. *Body Image* 3, 57–66. doi: 10.1016/j.bodyim.2005.10.005.¹⁵

30) Leelarungrayub D, Saidee K, (2012) Campion, M., and Levita, L. (2014). Enhancing positive affect and divergent thinking abilities: play some music and dance. *J. Posit. Psychol.* 9, 137–145. doi: 10.1080/17439760.2013.848376.¹⁶

31) Dr. Fatma Arslan (2012). Cohen, J. (1988). “The effect size,” in *Statistical Power Analysis for the Behavioural Science*, 2nd Edition. ed L. Erlbaum (New York, NY: Taylor and Francis Inc, 79–80.¹⁷

32) Cruz, R. F., and Berrol,C.Indian Association of Child and Adolescent Mental Health (2014) (2012). *Dance/Movement Therapists in Action: A Working Guide to Research Options*. Springfield, IL: Charles C. Thomas.¹⁸

33) Csikszentmihalyi, (2011) M., and Csikszentmihalyi, I. (1975). *Beyond Boredom and Anxiety*. San Francisco, CA: Jossey-Bass.¹⁹

34) Barason.et al., (2002). Relationship between anxiety and performance. *Journal of clinical psychology*.7(9),3-7.

35) Beidel,D.C., Christ,M.G.,& Long, P.J (1991).Somatic complaints and anxious children. Journal of abnormal child psychology.18(6), 659-670.

36) Besumalik and Banerjee. (2001) relationship between anxiety, academic achievement. Jounal of psychosocial medicine. 17(2),50-5757

37) Byme (2000). Adolescence. Indian journal of psychiatry. 7,34-38

38) Christenom.et al., (1992). Family influence on student achievement. Journal of adolescent research. 1(2). 19-20

39) Chrisitian (1997), Fear of failure, hope of success achievement motivation, anxiety. Schhool psychology quarterly. 7(3)178-206.

40) Edwards, et al., (1992). Anxiety, coping and academic performance. Anxiety, stress, and coping. An international journal.5(4), 15-20.

41) Gupa, Aushika (2014). Anxiety and scholastic achievement among adolescent. School of psychology quarterly. 7(3),74-77.

42) Hancock, D.R. (2001). Effects of test anxiety and evaluative threat as student 's achievement and motivation. Journal of educational research. 96(5), 284-290.

43) Mandler and sarason. (2000). Anxiety and performance among school student. A review of research family process 17 (2), 54-57.

44) www.all4naturalheath.com/natural-health-alternative

45) www.adta.org/Default.aspx?pagId=378213

46) www.annakemble.com/links.html

47) www.bibly/researchcueres

48) <http://dance.about.com/od/aerobic-dance/dance-types.html>

49) <http://en.wikipedia.org/eiki/dance-theraphy>

50) <http://en.wikipedia.org/eiki/dancemeditation>

51) http://www.healthcentral.com/anxiety/introduction-000028_3-145_2.html

52) www.healthjourney.com

53) www.bja.oxfordjournal.org

