

Effects of Dance and Art Work on Anxiety and Aggression of College Student

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ABSTRACT

The present experiment assessed the effect of dance practice and art work on state anxiety and state aggression of the college students. The sample consists of 60 female subjects (30 Subjects received training in Indian Classical Dance Forms and 30 Subjects received art training or no training in any other art forms). Then Spielberger State – Trait Anxiety Inventory (1983), and State – Trait Anger Expression Inventory (Spielberger 1994) were administered to assess the state anxiety and the state aggression respectively. For the analysis of data; mean, standard deviation and t-test were calculated, the analysis revealed that: State anxiety is reduced after dance practice and art work. State aggression is also reduced after dance practice and art work.

Keywords: *Anxiety, Aggression, Classical dance, Art work*

Art is a diverse human activity reflecting societal culture and emotions. It encompasses Visual, Literature, and Performing Arts. Dance, an expressive form, aids physical health and emotional well-being. Indian classical dances like Bharatnatyam and Kathak impact emotional release and anger reduction. Artwork, especially by children, reflects developmental stages and emotional expression. It serves as a therapeutic tool, aiding in communication and conflict resolution. Both art forms, through dance and artwork, combat anxiety by promoting self-expression, confidence, and socialization. They also mitigate aggression by channeling emotions positively and influencing mood. Mandala, a symbol of wholeness, aids in self-awareness and relaxation. Overall, art in various forms is a powerful tool for emotional expression, healing, and personal growth.

REVIEW OF LITERATURE

Effects of Dance on Anxiety

Several studies have explored the impact of dance on anxiety levels. Koch, Kunz, Lykou, and Cruz (2014) conducted a meta-analysis of 23 primary trials and found that dance interventions were effective in increasing quality of life while decreasing depression and anxiety. Grabner, Goodill, Hill, and Neida (1999) focused on college and pre-college

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students experiencing test anxiety, revealing that pre-test dance sessions improved both anxiety levels and academic performance.

Effects of Artwork on Anxiety

Studies investigating the effects of artwork on anxiety have shown promising results. Visnola, Pike, and Arija (2010) demonstrated significant reductions in anxiety levels before and after engaging in artwork among employees. Similarly, Sandmire, Gorham, Rankin, and Grim (2012) found a significant decrease in anxiety scores among graduate students after participating in art-making activities. Vennet and Serice (2012) discovered that coloring mandalas significantly reduced anxiety compared to other coloring activities. Aaron, Ceballos, and Berly (2011) and Campbell (2010) also reported reductions in anxiety through individual and group art projects.

Effects of Dance on Aggression

Research indicates that dance can be an effective intervention for reducing aggression. Studies such as the one from the American Journal of Dance Therapy (2004) and that of Smeijsters and Cleven (2006) demonstrate that dance therapy programs have successfully decreased aggression levels among participants. Lanzilo (2009) observed beneficial effects of dance sessions in reducing aggression and anxiety levels in children, while Koshland and Wittaker (2004) evaluated a dance program for violence prevention, revealing reductions in aggressive behavior.

Effects of Art on Aggression

Art therapy has also shown promise in mitigating aggressive behavior. Slayton, D'Archer, and Kaplan (2010) found artwork to be effective in reducing aggression across various age groups and populations. Mousavi and Sohrabi (2014) utilized art therapy to reduce anger and boost self-esteem in aggressive children. Similarly, Nahum (2008) presented a model showcasing the effectiveness of individual art therapy in reducing aggression among children exhibiting aggressive behaviors.

METHODOLOGY

Objectives of the experiment

- To determine the effect of dance practice on state anxiety of young adults.
- To determine the effect of artwork on state anxiety of young adults.
- To determine the effect of dance practice on state aggression of young adults.
- To determine the effect of artwork on state aggression of young adults.
- To determine the difference between the effects of dance practice and artwork on state anxiety of young adults.
- To determine the difference between the effects of dance practice and artwork on state aggression of young adults.

Hypothesis

- There is a significant effect of dance practice on state anxiety.
- There is a significant effect of artwork on state anxiety.
- There is a significant effect of dance practice on state aggression.
- There is a significant effect of artwork on state aggression.
- There is a significant difference between the effect of dance practice and art work on state anxiety.

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- There is a significant difference between the dance practice and artwork on state aggression.

Design of the experiment

Independent variable

1. Dance practice
2. Art work with colours

Dependent variable

State anxiety

State aggression

Measuring tools

- 1) State-Trait Anxiety Inventory (STAI)
- 2) State-Trait Anger Expression Inventory (STAXI)

Control Variable

Age, sex, education, marital status, duration of dance and artwork, physical disability, mental disorders, day and time of experiment.

Sample

The sample consisted of 60 female subjects (age range 19 -23 years). 30 subjects received training in Indian Classical Dance forms (Bharatnatyam and Kathak) and 30 subjects are training or no training in any other art forms.

Inclusion criteria

- Age range- 19-23 years.
- Educational qualification- at least higher secondary level.
- Family income – 30000-80000/- (middle income group).
- Educational status- college and university students.
- Marital status- unmarried.
- Duration of dance practice and art work-45minutes.
- Level of trait anxiety-equally distributed in groups.
- Type of dance forms- Bharatnatyam and Kathak
- Type of artwork – Mandala (same design for all)
- Day of the experiment-holidays
- Time of the experiment-morning hour
- Condition of the clients-physically fit, mentally alert and willing to participate in the experiment

Exclusion criteria

- Physical disability-people with any type of physical disability or any chronic illness disease were excluded.
- Mental disorder-people with any type of mental disorder were excluded.
- High trait anxiety and aggression.

Sampling procedure

In this experiment, purposive sampling was used. Data was collected by the methods of Snowball sampling. In this experiment State-Trait Anxiety Inventory and State-Trait Anger Expression Inventory was used to measure state anxiety and state aggression. For artwork one design from Mandala was selected. At first rapport was established with the subjects.

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The subjects were divided into two groups.

Two groups are –

1. 30 trained classical dancers give data before dance then they take their dance class for 45 minutes and then they again give data.
2. 30 subjects are received are training or no training in any other art form, they give data then used colours to fill up the Mandala design for 45 minutes, after that they again give the data.

Data was collected on holidays in the morning hours when subject's mind was fresh. In this way 60 data were collected for this experiment.

RESULT

Table – 1 Showing the means and standard deviations of the pre and post-test means of anxiety and aggression of student.

Dance	Anxiety				Aggression				Anxiety		Aggression	
	Pre		Post		Pre		Post		Post		Post	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	36.23	10.49	31.4	7.78	19.47	4.47	16.9	2.42	31.4	7.78	16.9	2.42
Art	33.6	8.22	28.3	4.99	19.63	4.54	17.4	3.25	28.3	4.99	17.4	3.25

Table – 2 Showing the consolidated table of the t values:

	Dance vs. Art work (Anxiety)	Dance vs. Art work (Aggression)
Pre to post	3.683	4.516
Pre to post	4.347	2.359
Post (DANCE) VS. Post (ART)	1.805	-0.708

Summary of results

- There is significant effect of dance practice on state anxiety and state aggression of college students. Both state anxiety and state aggression reduced significantly after dance practice.
- There is significant effect of art work on state anxiety and state aggression. Both state anxiety and state aggression reduced after art work.
- There is no significant difference between the effects of dance practice and art work on both state anxiety and state aggression.

DISCUSSION

Results revealed that dance practice had a significant effect on state anxiety of college students. After dance practice their level of state anxiety reduced significantly.

This result is supported by previous studies by Leste and Rust (1990), Lovatt (2018). Another research by Ritter and Low (1996) studied the use dance as a process which enhanced physical and emotional integration of an individual and found that dance significantly reduced anxiety and fit our body, by increasing self esteem.

Lovatt (2018) found that persons who are involved in dancing displayed improved problem solving skills and creative thinking patterns which in turn may increase their self efficacy and self esteem and reduce anxiety. This study also reported that the mood level of dancers went up after dancing. It showed that dancing along with music even for five minutes can boost happiness and decrease anxiety level.

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Roots (2016) explained that dancing is specially good for the muscles. As the muscle tone improves and flexibility increases, one may experience relief from pain and increase in stamina which in turn reduces anxiety as a whole.

Vrinceanu, et al. (2017) and Lovatt (2018) suggested that dancing also improves spatial awareness as well as raising the heart rate and causing a release the feel good endorphins into the blood stream. Dancing also helps to reduce the level of cortisol – a stress hormone. That is another reason why it makes the dancers more happy and relaxed. Thus it decreases the level of anxiety.

Lovatt (2018) reported that it is scientifically proved that dancing helps social bonding. He explained that the synchrony involved in dancing to a beat along with other people in a powerful way for humans to connect. Here in the present experiment as they are practising in a group, they experienced a positive social bonding which may have reduced their anxiety level.

This experiment moreover revealed that dance practice reduced level of aggression after dance practice.

This result was also supported by previous literature such as Macintyre and Homel (1997), Lanzilo (2009). Moreover, research by Smeijsters and Cleven (2006) showed that dance had been effective in controlling aggression and controlled release in anger. Koshland and Wittaker (2004) revealed that dance reduced levels of aggression and disruptive behaviour. Body fitness and happiness enhanced by dance movement (Roots,2016; Lovatt ,2018) may reduce aggression in the dancers.

Result of this experiment also revealed that art work reduced both anxiety and aggression of the college students under study.

Reduction in the level of anxiety had been supported by previous studies by Miller (1993), Vennat and Serice (2012), Mausavi and Sohravi (2014), Berberian (2017) and Visnola (2018). According to these studies colouring Mandala was specially effective in reducing anxiety. It also enhanced self esteem. Art work itself promoted and enhanced physical, emotional and mental health by using creative expression as a tool to communicate feelings. Taking part in art making also help them to decrease anxiety, stress and depression and increase self awareness, self esteem and promote insight into one's life. Colouring definitely had a therapeutic potential to reduce anxiety. Studies also revealed that expressing one self through art can help people with anxiety and depression and as a result it may improve memory, reasoning and resilience in healthy older people (Carleton, 2017).

Art work also help to reduce aggression. This result is also supported by previous studies Mausavi and Sohravi (2014), Slayton et al (2010) and Nahum (2008). Some says that art work control aggression by increasing self esteem. Art work acts as a creative expression for communication which reduces aggressive behaviour.

In this experiment both the dance practice and art work reduced anxiety and aggression. Thus dance and art can act as similar agents for reduction of anxiety and aggression.

CONCLUSION

- There was significant effect of dance practice on state anxiety.
- There was significant effect of art work on state anxiety.
- There was significant effect of dance practice on state aggression.
- There was significant effect of art work on state aggression.
- There was no significant difference between the effect of dance practice and art work on state anxiety.
- There was no significant difference between the effect of dance practice and art work on state aggression.

Limitations of the Study

There are some limitations of the present study, which are as follows-

- The sample size was not large enough (N=60 college students of which 30 were received dance training and 30 were received art training or no training in any other art forms).
- As all the subjects were female. Thus gender difference could not be assessed.

Application of the Experiment

The present study revealed that state anxiety and aggression can be reduced after dance practice as well as art work, performed by college and university students.

As we are all aware of the fact that after school, most of the students in higher studies concentrate only on their studies. They all stop participating in extra curriculum activities which they used to do in school days. The academic curriculum of college and universities lack the provision of extra and co-curricular activities on a regular basis. But in the college year students face more stressors and anxiety and aggression provoking situations than earlier days. Thus it will be highly beneficial if the authorities and educational policy makers incorporate art, dance, music, play, drama and other activities in their curriculum on a regular basis.

Moreover, dance practice in a milder form can also be applied to older people for reduction in anxiety and aggression. Both art work and dance for older people may also be beneficial for their mental health as well as physical health. This can also reduce their boredom.

Dance movement and art work can also be applied in office workers and IT professions, who work all day long in front of the computer. This can reduced their work stress.

Dance and art work can also be applied to the disabled group-children as well as adults.

Suggestion

- We can use dance and art work in students to reduce anxiety and aggression and promote mental health.
- In IT sectors dance movement and coloring Mandalas can be used once a week to reduce their stress, anxiety, aggression and enhance their mental health, social bonding, body fitness.
- If housewife's do this, then they can control their anxiety, aggression which is affected them in daily basis. Their pent up aggression can be released through dance movement and art work.
- We can also use this for chronic illness. By this (art work or some dance moves) they can express their emotions. Like – psychoanalytic approach we can use art as a

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projective technique for discovering their internal conflicts and increase the level of acceptance.

- Older people can use art work for minimizing their boredom and loneliness. Dance and movement can increase their fitness.

Further research in this field may be conducted to evaluate and study the effectiveness of different forms of dance and art on anxiety and aggression in detail. Longitudinal studies in this field may be done to see long term effects.

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Conflict of Interest

The author(s) declared no conflict of interest.

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