

Effect of Yoga on Positive and Negative Affect and Emotional Intelligence in Orphan Adolescent Females

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Abstract: This research study has planned to know the effect of integrated yoga module on Positive and Negative affect and emotional intelligence of the Adolescent Girls, living in the orphanage. Aged 10 to 18years, in total 30 numbers of adolescent girls were participated and attended yoga classes, taught by a trained yoga therapist for 12 weeks. The assessment was carried out one day prior to the intervention as well as on the last day of the intervention. In this study, single group pre-post experimental design was chosen as the researcher attempts to test the effectiveness of the yoga. The Positive, Negative affect was measured by using Positive, Negative Affects Schedule (PANAS-SF). Emotional intelligence was measured by using an Emotional intelligence questionnaire (TEIQUE-ASF). Since the results Shapiro Wilk test was considered for PANAS and Emotional intelligence questionnaire (TEIQUE-ASF). Further paired 't' test was carried out for hypothesis testing to measure the IAYT effects for PANAS. The paired 't' test was carried out at 99% confidence interval level. Wilcoxon signed rank test was considered for the Emotional intelligence questionnaire (TEIQUE-ASF) data for hypothesis test, as it was not distributed normally. Based on above, both PANAS and EI test results shows that IAYT has the highly significant effect on positive and negative affect and emotional intelligence $p < (0.01)$. Percentage difference of mean value for positive affect is 23.70% increased, negative affect has decreased about 18.70% and emotional intelligence is increased to 11.14% of pre data. Finding shows that 12 week duration of Yoga intervention has a significant effect on all three parameters; reduced in Negative Affect and improved in positive affect and emotional intelligence. It is to be concluded that for overall improvement in positive and Negative affect and also in Emotional intelligence.

Keywords: Affect, Emotional intelligence, Adolescent, Yoga intervention, Orphan

1. Introduction

Adolescent is a transitional phase of growth and development between childhood and adulthood. The World Health Organization defines an adolescent as any person between ages 10 and 19.[1] Adolescence can be defined biologically, as the physical transition marked by pubescence and the termination of physical growth; cognitively, as changes in the thinking ability abstractly and multi-dimensionally; or socially, as a stage of preparation for adult roles.

The major pubertal and biological changes are changes in the sex organs, height, weight, and muscle mass, as well as major changes in brain structure and organization.[2] Positive affect refers to positive emotions and expression, including cheerfulness, pride, enthusiasm, energy, and joy. Negative affect, is a personality variable that involves the experience of negative emotions and poor self concept.[3] The Emotional Quotient, or EQ describes an ability to monitor your own emotions as well as the emotions of others, to differentiate between and label different emotions correctly, and to use emotional information to guide your thinking and behaviour and influence that of others.[4] Orphaned children and adolescents living in institutional homes are more prone to behavioural and emotional problems than others as they are deprived of a family's love and care.[5]

levels of child's mind – from deep unconscious layers (guilty, anxiety) to self-consciousness and social relations are affected by family deprivation [6] number of studies are there about orphan children – researches were taking place as well going on. Most of the studies – researches are found based on social – physical - education

perspectives. Least researches are found on role of yoga for improvement in the physical – mental health of orphan adolescent girls. Here, this study is taken up as a pilot research study to measure the effect of the Integrated Yoga Therapy Module on Positive and Negative affect and emotional intelligence in adolescent orphan girls.

2. Methods

The 30 participants were considered to attend a yoga program; all were adolescent orphan girls, Orphan aged 10 to 17years, total 30 nos. Of adolescent girls were participated and attended yoga classes taught by a trained yoga therapist for 12 weeks. In this study, single group pre-post experimental design was chosen as the researcher attempts to test the effectiveness of the yoga. The module included loosening and breathing exercises, suryanamaskara, asanas, pranayama, and relaxation technique and krida yoga. The PANAS is a 20 items self-report measure of Positive and Negative Affect; developed by Watson, Clark & Tellegen (1988). The PANAS consists of two 10 items mood scales and was developed to provide brief measures of PA & NA.

The Positive Emotions such as, Interest, Excitement, Strong, Enthusiastic, Proud, Alertness, Inspired etc. And the Negative Emotions such as, Distress, Upset, Guilty, Scared etc. Scale structure the scale points are “Very slightly or Not at all”, “A Little”, “Moderately”, “Quite a bit” and “Extremely”. Positive Affect Score: Add the scores on items 1,3,5,9,10,9,12,16,17 and 19. Scores can range from 10-50, with higher scores representing a higher level of positive affect. Mean Scores: 33.3 (S. D. ± 7.2).

Negative Affect Score: Add the scores on items 2, 4, 6, 8, 11, 13, 15, 18 and 20. Scores can range from 10-50, with lower scores representing lower levels of negative affect. Mean score: 17.4 (S. D. ± 6.2)

Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQue-ASF). The TEIQue-ASF is a simplified version, in terms of wording and syntactic complexity, of the adult short form of the TEIQue. The ASF comprises 30 short statements, two for each of the 15 trait EI facets, designed to measure global trait EI. Numbers on the right correspond to the position of the items in the questionnaire. It is calculated by putting a circle around the number that best shows how much he/she agree or disagree with each sentence. If strongly disagree with a sentence, circle a number close to 1, if strongly agree with a sentence, circle a number close to 7, if not sure if agree or disagree, circle a number close to 4. There are no right or wrong answers. Scoring key: Reverse-score the following items and then sum up all responses I don't know how to show the people close to me that I care about them. (R) 16 I often find it hard to see things from someone else's point of view. (R) 2 I find it hard to keep myself motivated. (R) 18 I find it hard to control my feelings. (R) 4 my life is not enjoyable. (R) 5 I change my mind often. (R) 7 Sometimes, I get involved in things I later wish I could get out of. (R) 22 I Find it hard to know exactly what emotion I'm feeling. (R) 8 I find it hard to stand up for my rights. (R) 10 I tend to "back down" even if I know I'm right. (R) 25 I'm unable to change the way other people feel. (R) 26 Sometimes, I think my whole life is going to be miserable. (R) 12 sometimes, others

complain that I treat them badly. (R) 13 Sometimes, I wish I had a better relationship with my parents. (R) 28 I find it hard to cope when things change in my life. (R) 14.

3. Results

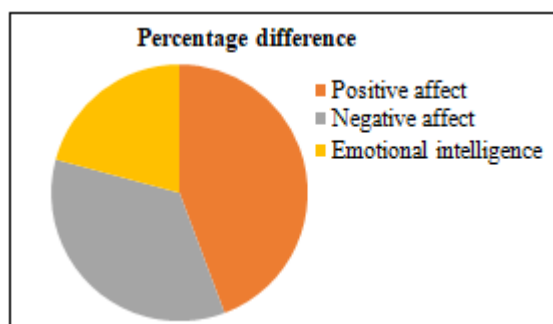
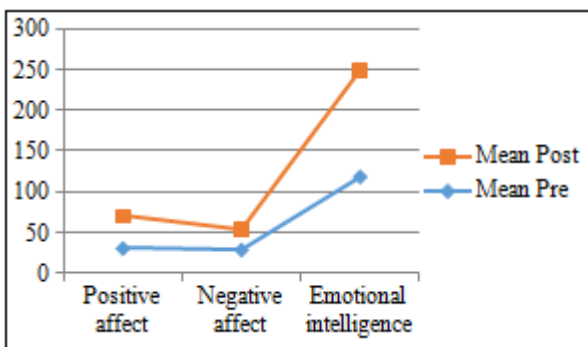
The test for normality was made by Shapiro will test and the data were found to be normally distributed. The study was subject to parametric test i.e., Paired t test to find out the significance value. Statistical analysis was performed by using SPSS.

In positive affect mean value is increased from 30.8667 to 39.1667, and negative affect mean value is decreased from 29.2333 to 24.2333 and for both positive and negative affect significant value is 0.000 which is less than p value of 0.01. Paired t test shows the effect of yoga on positive effect and negative affect were highly significant, ($p < 0.01$)

In emotional intelligence, the test for normality was made by Shapiro will test and the data were not found to be normally distributed. The study was subject to non parametric test i.e., Wilcoxon signed rank test to find out the significance value. Statistical analysis was performed by using SPSS.

Mean value of emotional intelligence is increased from 117.8667 to 131.7667, 0.000 significant and is less than the p value of 0.01. Shows clearly there is an effect of yoga on emotional intelligence.

Variables	Mean		Percentage difference	SD		P value
	Pre	Post		Pre	Post	
Positive affect	30.8667	39.1667	23.70%	6.16851	5.86682	0.000
Negative affect	29.2333	24.2333	18.70%	6.56891	5.22384	0.000
Emotional intelligence	117.8667	131.7667	11.14%	14.79220	8.14813	0.000



4. Discussion

Yoga helps to balance both mind and body; there are two functional parts of the brain that play an important role in the stress. The cerebral cortex in the front lobe of the brain is responsible for logical reasoning. the limbic system, which contains the amygdala and the hippocampus, is responsible for the emotional responses[7]. Patterns of brain activity in the right versus left hemisphere had investigated in most of the earliest scientific studies of meditation. Those studies found a greater degree of activation in the right hemisphere for meditators than non-meditators[8]. The emotional brain initiates a stress response via the sympathetic nervous system which causes adrenaline and cortisol rushing into our circulation. The logical brain is always trying to reduce this stress response and it is also trying to control the emotional brain. After a series of yoga postures, the logical brain has had an exercise leading to calmness in the mind as it is keeping our emotional brain balanced. Exercising the logical brain in this way for a long time can result in a rewiring of the nerve connections within the logical brain. Then stress will begin to be balanced [9]. To improve particular physical and mental health conditions there is increased interest towards yoga as a mind body complementary and alternative therapy[10]. Thus the Yoga

practices are adopted to balance and harmonize the disturbances in the mind and tackle the complex psychosomatic ailments. The IAYT module is based on classical hatha yoga texts. Usually children learn emotional regulation through observational learning, modelling and social referencing [11]. Generally, orphans in India are economically and socially considered backward. So, it was not easy to assess the effect of IAYT on Positive and Negative affect and Emotional intelligence in orphan adolescent girls. And therefore, we planned to select and work on these adolescent girls. Comparatively the results are beyond our expectation of positivity and thus, the yoga therapy and practice of yoga would be the one of the important tools for the complete upliftment – physically, mentally, socially and spiritually to get the physical and mental well being of the state.

5. Conclusion

Finding shows that 12 week duration of Yoga intervention has a significant effect on Positive and negative Affect parameters and emotional intelligence. The study shows the general dominants problems in orphan adolescent girls are due to their lower quality of life and Emotional imbalances. These can be improved with the application of regular practice of IAYT and for that awareness about Yoga is essential for them. Further, well controlled, randomized trials are needed to be done to show the efficacy of yoga. It is to be concluded that for overall improvement in Positive and Negative affect and emotional intelligence in orphan adolescent girls. The sample size of this particular study is 30 which is comparatively smaller, we cannot generalise this result to the larger population. Hence this same study can be taken up with larger sample size in future.

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