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A study on effect of yoga on anxiety and quality of life

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ABSTRACT

Aim : Our main intention is to find out yoga how far it is better to reduce the anxiety and also improve the lifestyle by yoga intervention.
Materials and Methods: We enrolled 60 subjects grouped into a control (N=30) and experimental group (N=30). The level of anxiety in the subjects was assessed by using specific methods. The data were collected before and after yoga intervention at the end of one month. A specific Yoga module was administered to the volunteers for 30 days.
Results: In our results, there was a statistically significant ($p<0.01$) decrease in anxiety and improved quality of life.
Conclusion: Yoga was a better alternative method for all psychological problems.

1. Introduction

Yoga means ”the unity of body and mind”. It is a combination of breathing exercises, physical postures, and meditation, and has been practiced in eastern traditional medicine for over 5000 years. In ancient literature of various asanas helpful in the control of breathing (pranayama) and relaxation and meditation (Shavasana).

In India, Yoga practiced to alleviate and improve the physical, mental, social and spiritual health. There is a need to show that yoga is not merely an exercise system but it has many more health benefits. Complementary Alternative Medicine (CAM)[1] suggested that yoga is a holistic approach followed by the western world from 3000 years.[1]

Stress management and its negative emotions were reduced by yoga. More studies stated that yoga has improved health substantially many clinical trials have been designed to assess its therapeutic importance and health benefits.[2]

Our analysis mainly represents the effectiveness of yoga in reducing the anxiety and to improve the quality of life among the volunteers and also evaluate the association of selected demographic variables with the level of anxiety.

2. Materials and Methods

60 people have met the inclusion criteria.60 subjects grouped into two groups, 30 volunteers in the study group and 30 volunteers in the control group. Pre & Post-test assessments were analyzed to both the study and control group at the end of one month.

2.1. Sampling criteria

2.2. Post assessment

Subjects in the study and control group were evaluated at 4 weeks on anxiety and quality of life based on the above-mentioned scales.

3. Data analysis

Data were analyzed using Paired’ test was used to compare the Pre and Post-test scores within the same group.

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Table 1:

Group	Pre-test	Yoga Intervention	Post-test
study	√	Given	√
Control	√	Not given	√

Table 2: Comparison of Socio-demographic characteristics of Volunteers in both the groups

Variables		Group				P-value
		Control (n=30)		Study (n=30)		
		Number	%	Number	%	
Age	< 35 yrs	15	50	16	53.3	.798
	>35yrs	15	50	14	46.7	
Sex	Male	17	56.6	18	60	
	Female	13	43.3	12	40	.795
Education						
	Inter and below	14	46.7	12	40	.605
	Above intermediate	16	53.3	18	60	
Occupation						
	Earning	20	66.6	22	73.3	.576
	Not earning	10	33.3	8	26.6	
Marital status	Married	19	63.3	22	73.3	
	Unmarried	11	36.6	8	26.6	.409

Table 3: Shown Anxiety scores of subjects- before yoga

	Group			p-value
	Control (n=30)	Study subjects (n=30)	t-value	
	Mean ± S.D	Mean ± S.D		
Anxiety	11.10 ±2.29	11.40 ±3.98	0.357	0.722

Table 4: Relation of selected demographic variables and the level of anxiety

Variables		Anxiety j			Chi square value	p-value I
		Mild- less than 17	Moderate 18-24	Severe 25-30		
		Number (%)				
Age	< 35 yrs	30 (51)	1 (100)	0	0.935	0.333
	> 35 yrs	29 (49)	0	0		
Sex	Male	34 (57)	1 (100)	0	0.714	0.398
	Female	25 (43)	0	0		
Education	Inter and below	26 (44)	0	0	0.765	0.382
	Above intermediate	33 (56)	1 (100)	0		
Occupation	earning	41 (69)	1 (100)	0	0.429	0.513
	Not earning	18 (31)	0	0		
Marital status	married	40 (67)	1 (100)	0	0.463	0.496
	Unmarried	19 (33)	0	0		

Table 5: Relation ofselected demographic variables and the level of anxiety

Variables		Anxiety j Mild- less than 17	Moderate 18-24	Severe 25-30	Chi square value i	p-value I
		Number (%) —				
Age	< 35 yrs	30 (51)	1 (100)	0	0.935	0.333
	> 35 yrs	29 (49)	0	0		
Sex	Male	34 (57)	1 (100)	0	0.714	0.398
	Female	25 (43)	0	0		
Education	Inter and below	26 (44)	0	0	0.765	0.382
	Above intermediate	33 (56)	1 (100)	0		
Occupation	earning	41 (69)	1 (100)	0	0.429	0.513
	Not earning	18 (31)	0	0		
Marital status	married	40 (67)	1 (100)	0	0.463	0.496
	Unmarried	19 (33)	0	0		

Table 6: Pre and Post-test scores of anxiety and quality of life in the control group

Variables	Control Group (n=30)		t -value	
	Pre-test Mean ± S.D	Post-test Mean± S.D		p-value
Anxiety	11.10 ±2.29	10.7 ±1.75	1.980	0.06
Quality of life (Domains)				
1. Physical Health	14.10 ± 1.72	13.70±1.12	1.795	0.08
2. Psychological Health	10.23 ± 1.59	10.16±0.46	0.254	0.80
3. Social Relationship	10.06 ± 1.08	9.83 ± 0.37	1.424	0.16
4. Environment	11.40 ± 1.58	10.83±0.46	1.876	0.07

Table 7: Comparison of Pre and Post-test scores of Anxiety and Quality of life in the experimental group.

Variables	Experimental Group (n=30)		t -value	
	Pre-test Mean ± S.D	Post-test Mean± S.D	t-value	p-value
Anxiety	11.40 ±3.98	6.53 ±2.43	12.81515	<0.001*
Quality of life (Domains)				
1. Physical Health	14.90±1.51	18.70±1.26	10.746	<0.001*
2. Psychological Health	10.20 ± 0.92	14.56±1.47	14.681	<0.001*
3. Social Relationship	10.40 ± 0.89	14.53± 0.86	18.492	<0.001*
4.Environment	11.23 ± 1.04	15.36±1.24	14.628	<0.001*
*significant				

Table 8: Comparison of anxiety and quality of life between the groups at post-assessment

Variables	Groups			
	Control (n=23) Mean ± S.D	Experimental (n=20) Mean ± S.D	t-value	p-value
Anxiety	10.76 ±1.75	6.53 ±2.43	7.731	<0.001*
Quality of life (Domains)				
1. Physical Health	13.70 ±1.14	18.70 ±1.26	16.03	<0.001*
2.Psychological Health	10.16 ±0.46	14.56 ±1.47	15.56	<0.001*
3.Social Relationship	9.83 ±0.37	14.53 ±0.86	27.38	<0.001*
4.Environment	10.83 ±0.46	15.36 ±1.24	19.09	<0.001*

*Significant.

4. Results and observations

There was no significant difference in age distribution, sex education, and occupation. (Table 2) of volunteers among the control and experimental group. (Table 2)

It could be observed that the anxiety levels of volunteers in the control and experimental group didn't differ significantly (p=0.72, for anxiety). (Table 3)

There was no difference between the control and experimental group on the overall quality of life among the volunteers attending the yoga center at the pre-test level significantly. (Table 4).

There was no relation between various demographic parameters associated with anxiety. (Table 5).

Shows that the levels of anxietyand all the four domains of quality of life did not differ significantly between pre and post-assessments in the control group.

From the above table 6 that anxiety level of the subjects was significantly lower at the post-assessment, 11.40 vs. 6.53 in the study group and also improves the quality of life.

The study group had significantly lower anxiety and a higher quality of life compared to the control group. (Table 8).

5. Discussion

In the present study, there was no significant difference in mean score in both the control and study group. (p=0.722). These results revealed that an abnormal level of anxiety in both the groups as per the Hamilton Anxiety Rating scales. Our findings were similar to earlier reports stated by Woolery et al (2004).[3]

According to the quality of life among the subjects in both groups were evaluated several selected domains such a. Physical health, psychological health, social relationship, and environment. The study reveals that which differs significantly between the experimental and control groups.

In the present study concerning socio-demographic variables none of these variables significantly associated with anxiety. From these results, the levels of anxiety do not differ significantly between pre and post-assessments in the control group (p = 0.06). Present findings confirm that there was a significant reduction in anxiety and a significantly higher quality of life after the Yoga intervention.

Present study accordance with the previous studies Malathi et al (2000)[4] studied forty-eight healthy volunteers who participated in the practice of Yoga over for 4 months. Another study reported by Michelson et al (2005)[5] which are related to our findings.

The experimental group had significantly lower anxiety levels and significantly higher quality of life compared to the control group. Our findings were similar to previous studies were observed by Javnbakht et al (2009),[6] Khumar et al (1993)[7] and Janakiramaiah et al (1998).[8]

The quality of life such as physical health, psychological health, social health, and environmental health features improved by an integrated yoga program. Several studies experimentally proved with scientific observations on the quality of life enhanced by yoga.[9–15]

In ancient literature yoga results in the balance of body that help tolerance of various environmental changes.[16,17]

There was a various limitation in the present study such as; relatively small sample size, short duration and it needs scientific validation.

6. Conclusion

We conclude that yoga practice may represent an effective improvement in patients with anxiety. Different yoga practices can be encouraged to be used as a non-pharmacological remedies to reduce anxiety and improve the quality of life.

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9. Conflict of Interest

None.

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