



EFFECTS OF YOGA WITH PSYCHOLOGICAL APPROACH ON STRENGTHS AND DIFFICULTIES IN SCHOOL GOING BOYS

Sendhil, V.* Dr.Kannappan, R.**

*Research Scholar, Dravidian University.

**Associate Professor of Clinical Psychology, Department of Psychiatry, V.M.K.V Medical College & Hospital, Salem, India.

Abstract

The present study aimed to measure the strength and difficulties of the school going pre-adolescent boys, the age groups of 11 to 13 years. Pre - post control design was used to measure the effects the intervention. 120 male students from two schools were randomly assigned into experimental group (n=60) and control group (n=60). The experimental group was exposed to yoga with psychological approach to increasing the strength and decreasing the difficulties of the school students which in turn improvement in mental health. The control group was not exposed to the above intervention for the entire period. Strengths and difficulties questionnaire was used to the control group before and after assessments and to the experimental group before and after and follow-up assessments. The yoga intervention was conducted for a period of six months covering a total of 40 sessions. The psychological approach included counseling sessions which were conducted one to one and one to group for taking right decisions. The results have shown that the experimental group had significantly increasing the strength and decreasing the difficulties of the school students when compared to the control group. The experimental group had significant changes in overall score of the scales at follow-up assessment. Besides, experimental group differed from the control group in the impact of upset or distress, home life, friendship, class room learning, and leisure activities The yoga with psychological approach is effective in increasing the strength and decreasing the difficulties of the school students.

Key Words: School Boys, Strengths and Difficulties, Yoga with Psychological Approach.

INTRODUCTION

Mental health in children and adolescents is not only the absence of disease but it is also a state of emotional and spiritual wellbeing. Moreover it refers to the maintenance of successful mental activity, engages in productive daily activities, and maintains fulfilling relationships with others (World Health Organization, 2009). Mental health screening instruments for children are designed to identify children and adolescents who are at-risk of having mental health problems or concerns. The instruments provide a thorough assessment of mental health and/or social-emotional functioning. It has primarily been designed to identify children with behavior problems that might interfere with their academic functioning in the school environment. One of the mental health screening instruments is Strengths and Difficulties Questionnaire (SDQ). The SDQ composed five subscales of five items each, generating scores for emotional symptoms, conduct problems, hyperactivity-inattention, peer problems and prosocial behavior. Optional supplement questionnaires were also available that identify the extent of problems and the potential benefit of interventions (Williams, 2008).

In the British Child Mental Health Survey, multi-informants (parents, teachers, and older children) identified SDQs as individuals with a psychiatric diagnosis with a specificity of 94.6% and a sensitivity of 63.3%. The questionnaires identified over 70% of individuals with conduct, hyperactivity, depressive and some anxiety disorders, but it identified fewer than 50% of individuals with specific phobias, separation anxiety and eating disorders. Community screening programmes based on multi-informant in SDQs could potentially increase the detection of child psychiatric disorders, thereby improving access to effective treatments (Goodman et al, 2000). The SDQ could be suitable for assessing emotional and behavioural problems in Greek adolescents (Giannakopoulos et al, 2013). It was significantly better than the CBCL at detecting inattention and hyperactivity, and at least as good at detecting internalizing and externalizing problems. Mothers of low-risk children were twice as likely to prefer the SDQ. The SDQ can be used as a screening instrument for Norwegian child and adolescent mental health services and application of UK scoring algorithms (Goodman and Scot, 1999).



Research Paper

The Questionnaire answered by the teachers had 1.83% for emotional symptoms, 8.25% for conduct disorders, 8.25% for hyperactivity, 2.75% for interpersonal relationships, 8.25% for the total scoring and 4.58% for the impact supplement. The SDQ can be useful for a preliminary screening in the investigation of possible psychiatric disorders in childhood (Cury and Golfeto, 2003).

Rimal and Pokharel (2013) investigated the prevalence of mental health issues among school children aged 11-17 years. Among the 159 students in their study, 18.6% had a total- strengths and difficulties questionnaire (SDQ) score that can be classified as abnormal by published cut offs. The emotional problems (24.5%) and peer relationship problem (22%) were the two common problems screened as an abnormal SDQ score.

The system of yoga strives to provide serenity of self-poise which helps in preserving the light of the eternal amidst the storms and stresses of social living. This present study therefore examined the effects of yoga with psychological approach for better mental health among students.

The objectives were i) To measure the strengths and difficulties of the experimental and the control groups of boys. ii) To find out the effects of yoga with psychological approach in the experimental group on strengths and difficulties at before and after assessments, and iii) To examine the effects of yoga with psychological approach in the experimental group on strengths and difficulties before and follow up assessments.

METHOD

Design: in the pre-post control design, experimental and control groups of the students were used in the present study.

Sample

The boys who were willing to participate in the yoga with psychological approach were selected for the school based intervention; they got permission from their parents for undergoing the intervention for a minimum period of 6 months. The students who had the history of major medical or psychiatric illness were excluded. All the students were informed about the study and they consented to participate in the study. Care was taken not to share what intervention the experimental group received throughout the period. The teachers who had interest to help the study were selected.

The students were studying in 6th, 7th and 8th standards and they were in the age group of 11 to 13 years. The groups of these students were randomly selected in to the experimental group (received the yoga with psychological intervention) and the control group. Each group consisted of sixty willing students who came from in and around of Puducherry. The teachers rated the strength and difficulties of the students of the control group at before and after assessments and to the experimental group at before, after and follow up assessments. Care was taken to check the filled in scales by the teachers for its completeness.

Material

Strengths and Difficulties Questionnaire (SDQ): Goodman (2002) developed for measuring the strengths and difficulties questionnaire of youths aged 11-17 years. The teacher used version consisted of 25 items comprising 5 sub-scales of 5 items each. The responses to items should always be scored as somewhat true was always scored as 1, but the scoring of not true and certainly true varied with each item. For each of the 5 scales the score could range from 0-10 if all 5 items were completed. Scale scores were prorated if at least 3 items were completed.

Procedure

Pilot study was conducted with the scales, English with Tamil version, and they were used twice after (15 days) for test- retest reliability of the scales. The yoga sessions were handled by the researcher and his assistant, physical education teacher. The physical education instructor had experience of yoga practice and demonstrated the yoga. The students were divided into six groups and the strength was 10 for the yoga training. This was done for giving individual attention to the students. The yoga trainer changed the sequence of the yoga every 15 days.



Research Paper

The sequence had counter poses and rest was inbuilt. It was important to place the yoga postures interesting for the students and with breathing practices. The set of asanas followed by pranayama and meditation was taught to the students. All the students were taught the various steps of surya namaskar in addition to the set of asanas. The yoga practice with psychological intervention was conducted for six months covering a total of 40 sessions. The students were monitored while they practiced yoga. The psychological approach included counseling sessions which were one to one and one to group for taking right decisions. Methods of practicing right attitude, methods to alter the negative thoughts, and methods to get over self motivated were the main themes of the sessions. It was expected that the intervention will bring changes in the mental health of the students.

Results: Collected data from the groups were analyzed by using SPSS package.

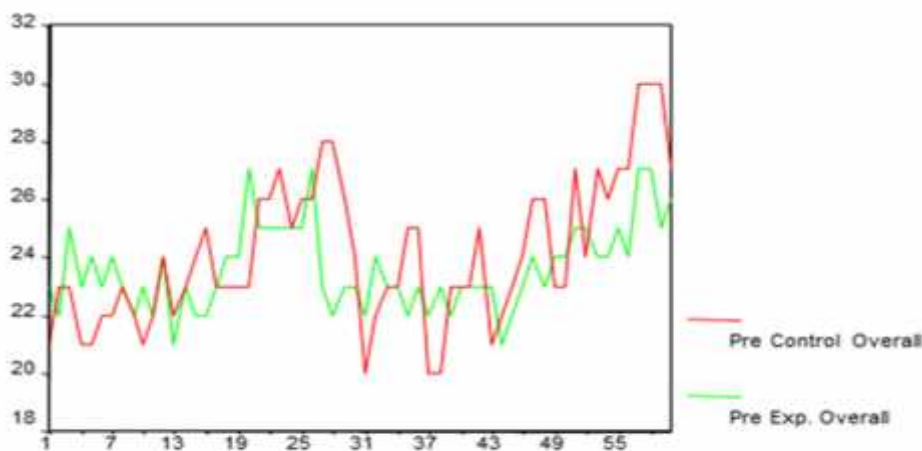
Table 1 shows the scores of strengths and difficulties questionnaire at before assessment of the groups of the school boys.

S. No	Scale	Control group			Experimental group			t-value
		n	X	SD	n	X	SD	
1	Emotional problems	60	6.47	0.50	60	6.42	0.56	0.72
2	Conduct problems	60	5.92	1.03	60	5.72	0.61	1.41
3	Hyperactivity	60	6.08	1.32	60	5.92	0.59	0.94
4	Peer problems	60	5.67	0.75	60	5.55	0.65	1.22
5	Pro-social behavior	60	5.80	1.02	60	6.07	0.90	1.73
	Total score		24.13	2.49		23.60	1.44	1.96

The above table shows that there are no significant differences in the t-values of the experimental and the control groups in strength and difficulties at the initial assessment of the two groups. This indicates that the baseline values of these two groups in strength and difficulties have no significant difference in all areas.

Table 2.shows the trend analysis in strengths and difficulties of the control and the experimental groups at before assessment.

Trend analysis: In the X axis, mean of the experimental group is drawn and in the Y axis mean of the control group is drawn in the graphs.



The above diagram shows the trend of strengths and difficulties of the control and the experimental groups at before assessment. The X axis indicates the mean of the pre-experimental group and in the Y axis indicates mean of the pre-control.



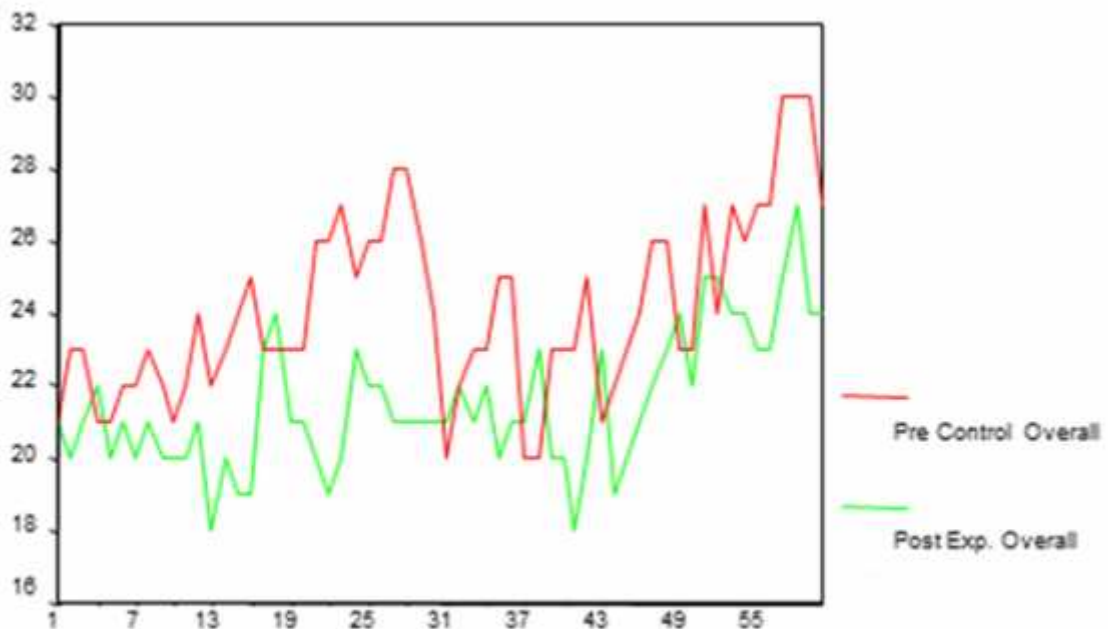
Table 3: shows the strengths and difficulties questionnaire at before and after assessments of the groups.

S.No	Scale	n	Control group		Experimental Group			t-value
			Before		After			
			X	SD	n	X	SD	
1	Emotional problems	60	6.47	0.50	60	5.68	0.79	8.22*
2	Conduct problems	60	5.92	1.03	60	5.22	0.80	4.19*
3	Hyperactivity	60	6.08	1.32	60	5.42	0.77	3.38*
4	Peer problems	60	5.67	0.75	60	5.17	0.69	4.17*
5	Pro-social behavior	60	5.80	1.02	60	6.58	0.87	5.02*
	Total score		24.13	2.49		21.48	1.87	8.68*

*P<0.01

Mean and standard deviation were calculated to facilitate the comparison of the two groups. i.e. control and experimental groups. The main analysis of the data was to determine the significance of mean differences between these groups after the intervention in conduct, emotional and learning behavior. The mean value of the experimental group was significantly higher than the control group indicating effectiveness of the intervention in the students on the strengths and difficulties in all his areas. The results indicate the significant differences in the strengths and difficulties such as emotional problems, conduct problems, hyperactivity, peer problems and pro social behavior and also overall score.

Table 4. shows the trend analysis in strengths and difficulties of the control and the experimental groups at before and after assessment.



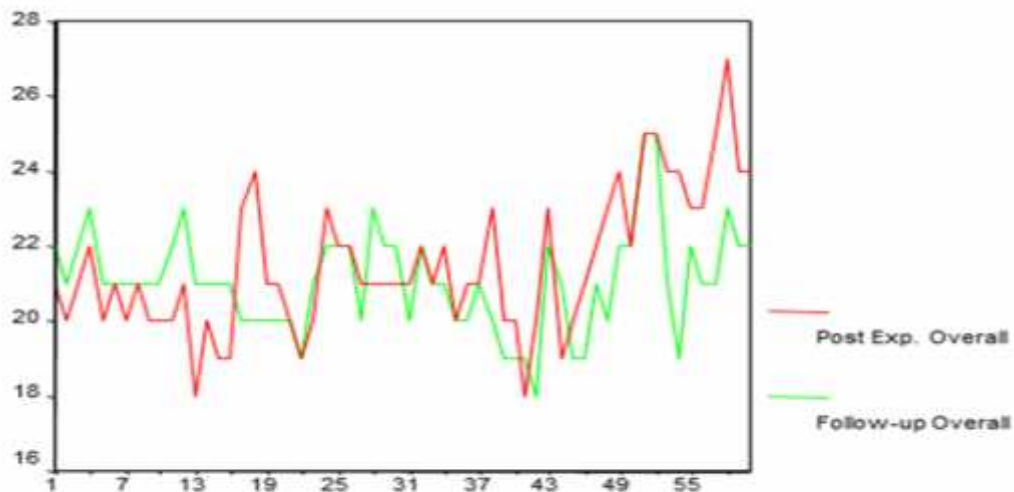
The above diagram shows the trend of strengths and difficulties of the control and the experimental groups at before and after assessment. The X axis indicates the mean of the post experimental group and the Y axis indicates the mean of the pre- control.



Table 5: shows the strengths and difficulties questionnaire at after and follow-up assessments of the groups.

S. No	Scale	Experimental group			Experimental group			t-value
		After			Follow-up			
		N	X	SD	n	X	SD	
1.	Emotional problems	60	5.68	0.79	60	5.57	0.62	1.31
2.	Conduct problems	60	5.22	0.80	60	5.13	0.54	1.00
3.	Hyperactivity	60	5.42	0.77	60	5.27	0.88	1.14
4.	Peer problems	60	5.17	0.69	60	5.08	0.53	0.80
5.	Pro-social behavior	60	6.58	0.87	60	6.80	0.84	1.52
	Total score		21.48	1.87		21.05	1.37	1.92

The analysis is to determine the significance of mean differences between before and follow-up assessments of the experimental group. The mean value of the experimental group after the intervention is significantly higher than the experimental group in strengths and difficulties. The group has significant changes in hyperactivity. Table 6. shows the trend analysis in strengths and difficulties of the control and the experimental groups at after and follow-up assessment.



The above diagram shows the trend of strengths and difficulties of the control and the experimental groups at after and follow-up assessment. The X axis shows the mean of the post experimental group and the Y axis shows the mean of follow up of the experimental group.

Table7: shows the impact of strengths and difficulties questionnaire at before assessment of the groups.

Scale	Control group		Experimental group		t-value
	X	SD	X	SD	
Impact on distress, home life, friendship, class room learning, and leisure activities	0.65	0.73	0.68	0.75	1.43

The above table shows that there is no significant difference between the experimental and the control groups in the impact of strengths and difficulties at the initial assessment in the t-value of SDQ. This indicates that the



Research Paper

baseline impact of these two groups has no difference. The impact covered difficulties upset or distress, home life, friendship, class room learning, and leisure activities.

Table 8: shows the impact of strengths and difficulties questionnaire at before and after assessments of the groups.

Scale	Control group		Experimental group		t-value
	X	SD	X	SD	
Impact on distress, home life, friendship, class room learning, and leisure activities	0.65	0.73	0.30	0.62	5.63*

*P > 0.01

The mean value of the experimental group was significantly lower than the control group in the impact of strengths and difficulties. These two groups differed in impact of upset or distress, home life, friendship, class room learning, and leisure activities.

Table 9: shows the impact of strengths and difficulties questionnaire at after and follow-up assessments of the groups.

Scale	Experimental group- After		Experimental group- Follow-up		t-value
	X	SD	X	SD	
Impact on distress, home life, friendship, class room learning, and leisure activities	0.30	0.62	0.25	0.54	1.76

The impact of the experimental group at after and follow-up was significantly lower bur they did not differ significantly in the strengths and difficulties. The impact covered difficulties upset or distress, home life, friendship, class room learning, and leisure activities.

DISCUSSION

The yoga enables the individual to maintain their health by going to its roots. It develops physical, mental, intellectual, emotional and spiritual components, thus building up well- rounded personality traits in the students. It also improves hormone levels, immune response, cardiovascular health and respiratory functions (Pilkington et al, 2005). Yoga means the union of mind and body and the control of modifications of mind. The effects of yoga have been found in numerous studies in children. People frequently report a sense of deep relaxation, calm and happiness at the end of a yoga session (Monk-Turner & Turner, 2010).

Yoga is a mean to attain holistic well-being for the self and society and also transforms people to be socially sensitive. This may increase the likelihood of children engaging in civic activities and shaping a better society (Hagen & Nayar, 2014). The goal of yoga shows that it is a holistic way of life leading to a state of complete physical, social, mental, and spiritual well-being and harmony with nature. The teachers were more likely to notice especially externalizing problems such as hyperactivity and conduct problems in boys. Besides, the teachers were more likely than parents to notice prosocial behaviour in boys at school. In special health care, the strengths and difficulties questionnaire may be very useful in the initial assessment, serving as a baseline of a child's emotional and behavioral problems for a follow-up.

Berge, Silver & Stein (2009) report that there is a reduction in problematic behaviors. Behavioural deviance and mental health were changed positively by yoga training in adolescent boys (Kannappan and Lakshmi Bai, 1994). After the intervention, there has been significant positive change in the experimental group in the strengths and difficulties, positive and negative emotional and behavioral development as well as positive experience at school.



Research Paper

The experimental group has significant impact of upset or distress, home life, friendship, class room learning, and leisure activities. But there has been no significant positive change in the control group.

CONCLUSION

The present study was designed with the aims of improving mental health and personality of middle school boys and comparing the effects of yoga combined with psychological intervention to the experimental and the control groups of boys.

The experimental group had significantly increasing the strength and decreasing the difficulties of the school boys when compared to the control group. The experimental group had significant changes in overall score of the scales at follow-up assessment. Besides, experimental group differed in the impact of upset or distress, home life, friendship, class room learning, and leisure activities when compared the control group. The yoga with psychological approach is effective in increasing the strength and decreasing the difficulties of the school boys.

REFERENCES

1. Berger, D.L., Silver, E.J., and Stein, R.E. (2009). Effects of yoga on inner-city children's well-being: A pilot study, *Alternative Therapies in Health Medicine*, 15(5), 36-42.
2. Cury, C.R., & Golfeto, J.H. (2003). Strengths and difficulties questionnaire (SDQ): A study of school children in Ribeirão Preto, *Revista Brasileira de Psiquiatria*, 25(3), 139-145.
3. Giannakopoulos, G., Dimitrakaki, C., Papadopoulou, K. C.Tzavara, C, Kolaitis, G., Ravens-Sieberer, U. & Tountas Y. (2013). Reliability and validity of the Strengths and Difficulties Questionnaire in Greek adolescents and their parents, *Health*, 5(11):1774-1783.
4. Goodman, R & Scot, S. (1999). Comparing the Strengths and Difficulties Questionnaire and the Child Behavior Checklist: Is Small Beautiful? *Journal of Abnormal Child Psychology*, 27(1):17-24.
5. Goodman, R., Ford, T., Simmons, Gatward, R & Meltzer, H. (2002). Using the Strengths and Difficulties Questionnaire (SDQ) to screen for child psychiatric disorders in a community sample, *The British Journal of Psychiatry*, 177, 534-539.
6. Hagen, I., & Nayar, U.S. (2014). Yoga for children and young people's mental health and well-being: research review and reflections on the mental health potentials of yoga, *Frontiers in Psychiatry*, 26, 35-42.
7. Kannappan, R and Lakshmi Bai, R. (1994). Positive Changes in Behavioral Deviance and Mental Health in Adolescent Deviant Boys, *Journal of Psychological Researches*, 42, 28-36.
8. Monk-Turner, E. & Turner, C. (2010). Does yoga shape body, mind and spiritual health and happiness: Differences between yoga practitioners and college students, *International Journal of Yoga*, 3 (2), 48-54.
9. Pilkington, K., Kirkwood, G., Rampes, H., & Richardson, J. (2005). Yoga for depression: The research evidence, *Journal of Affective Disorders*, 18 (3), 13-24.
10. Rimal, H.S., and Pokharel, A. (2013). Assessment of Mental Health Problems of School Children Aged 11-17 Years Using Self Report Strength and Difficulty Questionnaire (SDQ), *Journal of Nepal Paediatric Society*, 33 (3), 172-176.
11. World Health Organization (2009). *Recent Health Report of World Health Organization*, Geneva: Switzerland.
12. Williams, .S.D. (2008) *Mental Health Screening and Assessment Tools for Children Literature Review UC Davis extension*, Publisher: Youth in Mind.