

CHAPTER 6

6.0 RESULTS

Forty-three children with ASD across four special schools were finalized for participation in the study. As shown in the CONSORT Flow Diagram, four children with ASD were excluded as they did not meet the inclusion criteria specified for the study. There were no dropouts in the study. Only two participants in the control group (n=2) were excluded from the BOT-2 Brief for motor proficiency analysis as they did not undergo the postintervention assessments due to their sudden absenteeism from school. The baseline demographic characteristics of the participants found no statistically significant differences between two groups on age [$t(41) = .231, p > .05$] and gender [$\chi^2(1, N = 43) = .048, p = .83$]. In *yoga* group total ATEC scores ($M = 65.13, SD = 17.82$) and control group ($M = 64.85, SD = 22.41$), $t(41) = .046, p > .05$. The baseline characteristics of the participants are given in Table 6.1.

TABLE 6.1 BASELINE DESCRIPTIVE STATISTICS OF PARTICIPANTS

Participants	Yoga Group (n=23)	Waitlist control group (n=20)
	n/M (SD)	n/M (SD)
Age	9.77(2.63)	9.61(1.93)
Gender (M: F)	19:04	16:04
Total ATEC scores (<i>p</i> = 0.96)	65.13 (17.82)	64.85(22.41)
Comorbid diagnosis		
ADHD	2(8.70%)	3(15%)
Comorbidities as reported by parents		
Gastrointestinal issues	4(17.39%)	3(15%)
Anxiety	5(21.74%)	0(0%)
Therapies	1(4.35%)	2(10%)
Speech	0(0%)	1(5%)
Oral Placement therapy	0(0%)	1(5%)
Occupational	1(4.35%)	1(5%)
Auditory	0(0%)	1(5%)
Diet	1(4.35%)	1(5%)
On medication (Allopathic medication)		
Epilepsy	8(34.78%)	6(30%)
Sleep	4(17.39%)	4(20%)
Gastrointestinal issues	3(13.04%)	3(15%)
Homeopathic medicine		
Hyperactivity	0(0%)	1(5%)

Note. ADHD= Attention-deficit hyperactivity disorder

6.2 IMPLEMENTATION OF INTERVENTION AND PARTICIPATION INTEGRITY

Since the intervention was conducted in four special schools, there were few differences in the school holidays due to local festivals. Attendance and the responses are considered the criteria for effective participation in the intervention for children with disabilities (Imms et al., 2016). The attendance records were kept on the school premises after every *yoga* session. The first author collected this every week from each school. The average attendance was 89.4%, indicating students attended 89.4% of the *yoga* sessions. It was collected and reviewed by the first author weekly. Intervention integrity and participation were maintained by daily tracking the PPR and PPNR of the children on the *yoga* feedback checklist completed by *yoga* teachers after every session.

6.3 AUTISM SEVERITY

The baseline was matched for all the variables in ATEC. Table 6.1 shows, a significant group time interaction for the total ATEC Score [$F(1,41) = 13.42, p = 0.001, \eta^2 = 0.247$] and Subscale I (Speech/Language/Communication) [$F(1,41) = 6.55, p = 0.014, \eta^2 = .137$]. Further post hoc Bonferroni showed that there was a significant decrease in score for Subscale II (Sociability), $p = .004$; Subscale III (Sensory/Cognitive Awareness) $p = .022$; Subscale IV (Health/Physical/Behavior), $p = .008$ and Total ATEC score ($p < .001$) in the *yoga* group but a non-significant change in the control group. Health/Physical/Behavior ($p < 0.005$) and Total ATEC Score ($p < 0.031$) found significant changes when post-score compared between groups.

TABLE 6.3.1 COMPARISON OF MEANS AND STANDARD DEVIATIONS OF ATEC SCORES PRE AND POST-INTERVENTION

	Variables	Group M (SD)				F	df	Group Time*	
		Yoga (n = 23)		Control (n = 20)				p-value	Partial eta square (η^2)
		Pre	Post	Pre	Post				
ATEC	Total ATEC Score	65.13 (17.82)	51.83 (16.74) *** @	66.61 (22.73)	65.83 (21.28)	13.42	1,41	.001	.247
	Speech/Language/Communication	15.17 (6.17)	13.65 (6.43)	13.0 (6.38)	14.89 (5.76)	6.55	1,41	.014	.137
	Sociability	16.04 (6.49)	12.35 (5.45) **	17.33 (7.86)	14.33 (6.80)	.542	1,41	.446	.013
	Sensory/Cognitive Awareness	15.61 (6.74)	13.39 (6.16) *	16.61 (6.91)	16.89 (6.85)	3.66	1,41	.063	.082
	Health/Physical/Behavior	18.30 (8.83)	12.52 (7.27) ** @@	19.61 (11.41)	19.72 (9.32)	13.42	1,41	.055	.087
			Legend: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ within-group pre-to-post comparison * $^@p < 0.05$, $^@@p < 0.01$, $^@@@@p < 0.001$ post with post-to-post comparison Bold denotes group-time interaction						

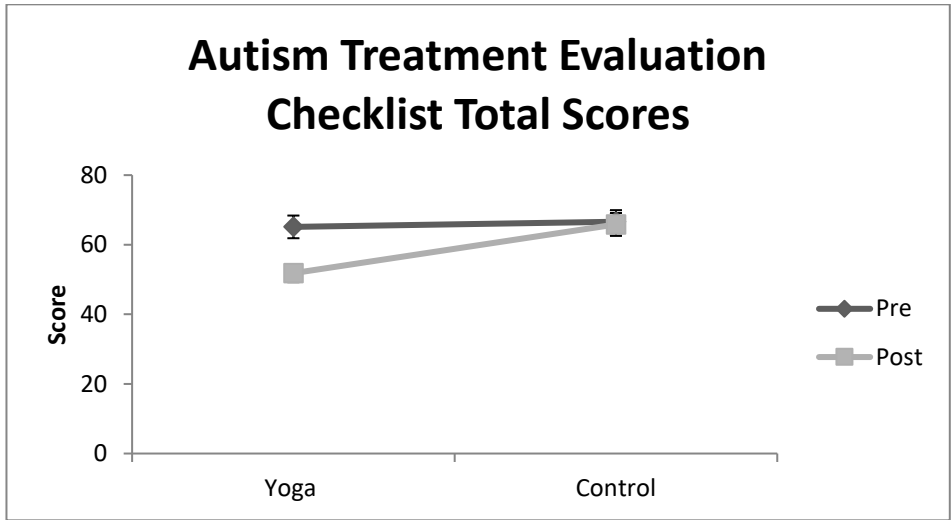


Figure 6.3.1 Pre-post changes in ATEC Total Scores

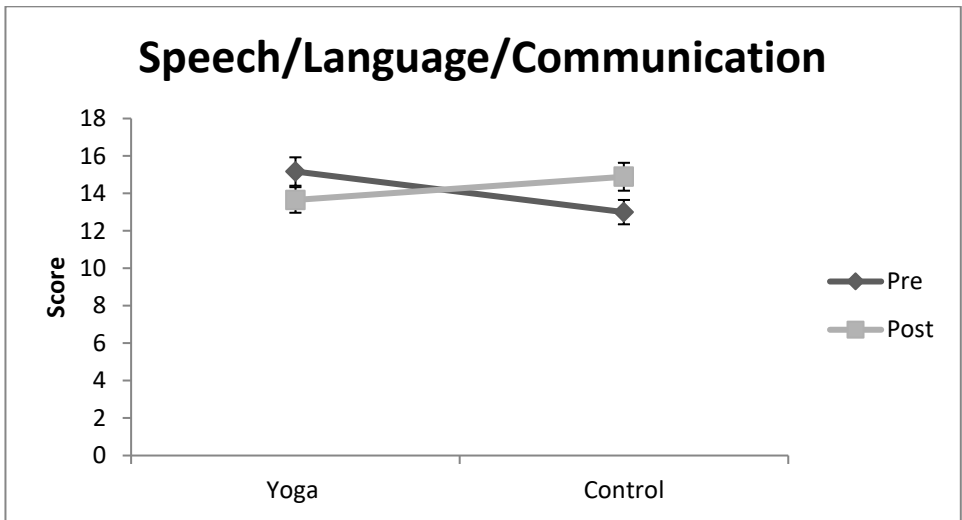


Figure 6.3.2 Pre-post changes in Speech/Language/Communication

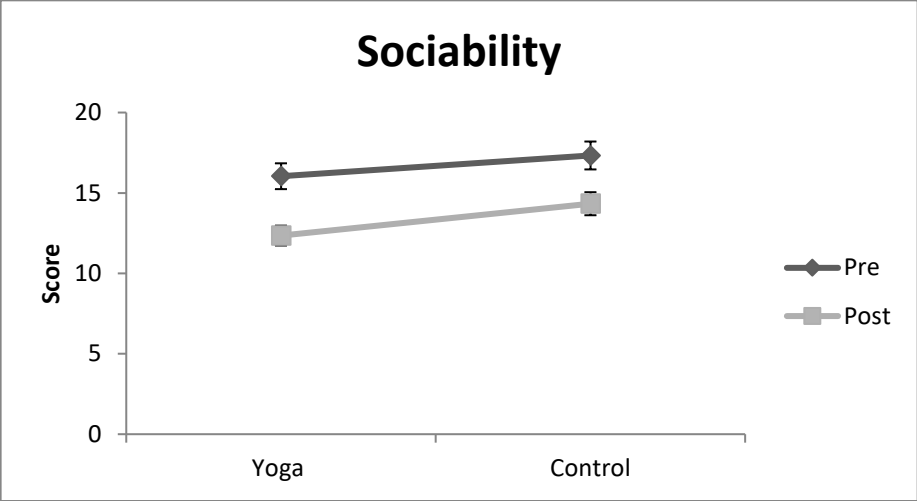


Figure 6.3.3 Pre-post changes in Sociability

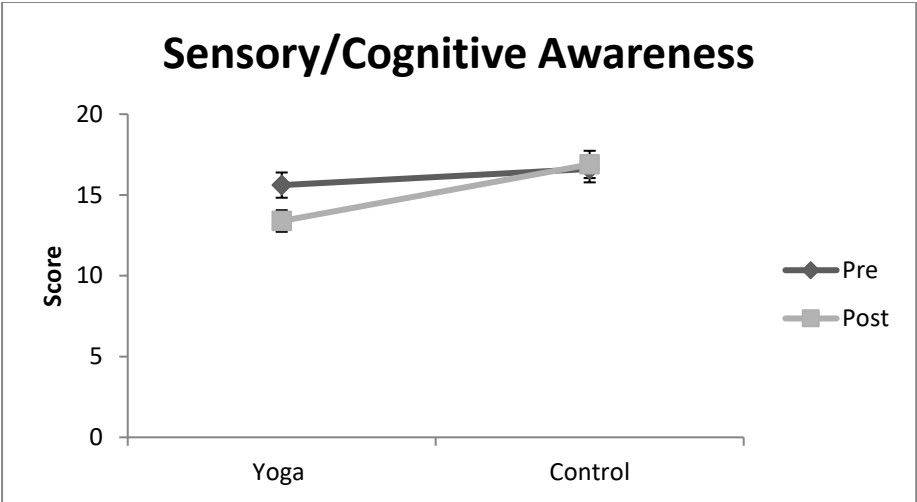


Figure 6.3.4 Pre-post changes in Sensory/Cognitive Awareness

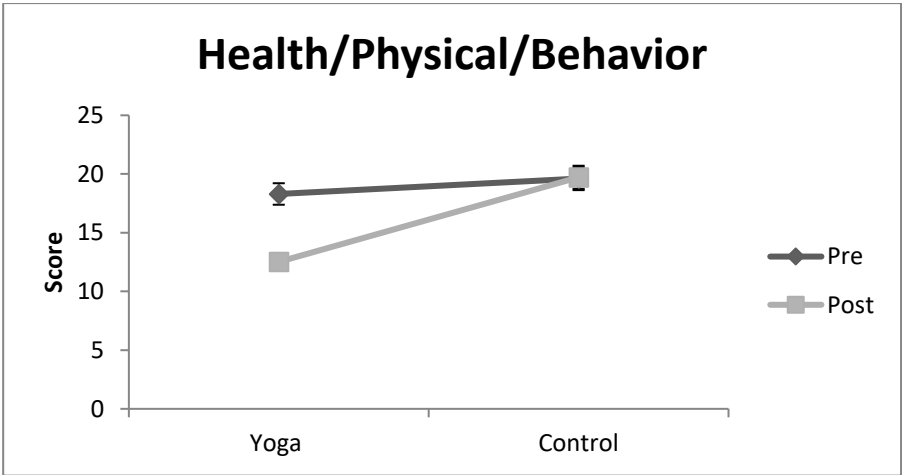


Figure 6.3.5 Pre-post changes in Health/Physical/Behavior

6.4 SOCIAL SKILLS DEFICITS

The baseline was matched for all the variables in SRS-2. Table 6.2 shows, a significant difference between times in total SRS- 2 Score [$F(1,41) = 24.58, p < 0.001, \eta^2 = 0.375$] and Subscale II (S. Cognition) [$F(1,41) = 11.86, p = 0.001, \eta^2 = .224$], Subscale III (S. Communication) [$F(1,41) = 18.98, p < 0.001, \eta^2 = .317$], Subscale IV (S. Motivation) [$F(1,41) = 5.78, p = 0.021, \eta^2 = .124$] and Subscale V (RRB) [$F(1,41) = 17.14, p < 0.001, \eta^2 = .295$] Further post hoc Bonferroni showed that there was a significant decrease in scores for Subscale III (S. Communication), $p < .001$ and Subscale IV (S. Motivation) $p = .026$ in the *yoga* group but a non-significant change in the Control group with significant decrease in scores in both *yoga* and control group for Subscale II (S. Cognition), $p = .014$, Subscale V (RRB), $p = .003$ and Total SRS scores, $p < .001$, Social Communication, $p = .021$ found significant change when post scores were compared between groups.

Table 6.4.1

COMPARISON OF MEANS AND STANDARD DEVIATIONS OF SRS-2 SCORES PRE AND POST-INTERVENTION

SRS-2	Variable	Group M (SD)				F	df	Group Time*	
		Yoga (n= 23)		Control (n= 20)				p-value	Partial eta square (η^2)
		Pre	Post	Pre	Post				
	SRS-2 Total	81.30 (28.11)	69.26** (22.31)	88.17 (26.49)	81.22 (28.08)	1.58	1,41	.215	.039
	Social Awareness	11.26 (3.59)	10.65 (3.22)	11.56 (3.56)	11.33 (3.92)	.407	1,41	0.527	.010
	Social Cognition	15.96 (4.96)	13.78** (4.51)	17.61 (6.06)	16.0 (5.95)	.276	1,41	.602	.007
	Social Communication	26.70 (10.06)	21.61***@ (6.89)	29.0 (10.80)	26.83 (10.26)	3.02	1,41	.090	.072
	Social motivation	13.48 (6.62)	11.78* (4.68)	14.89 (5.14)	13.83 (5.10)	.322	1,41	.574	.008
	RRB	13.91 (7.45)	11.43** (6.14)	15.11 (6.64)	13.22 (6.24)	.251	1,41	.619	.006
		Legend: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ within-group pre-to-post comparison * $p < 0.05$, @ $p < 0.01$, @@@ $p < 0.001$ post with post-to-post comparison Bold denotes group-time interaction							

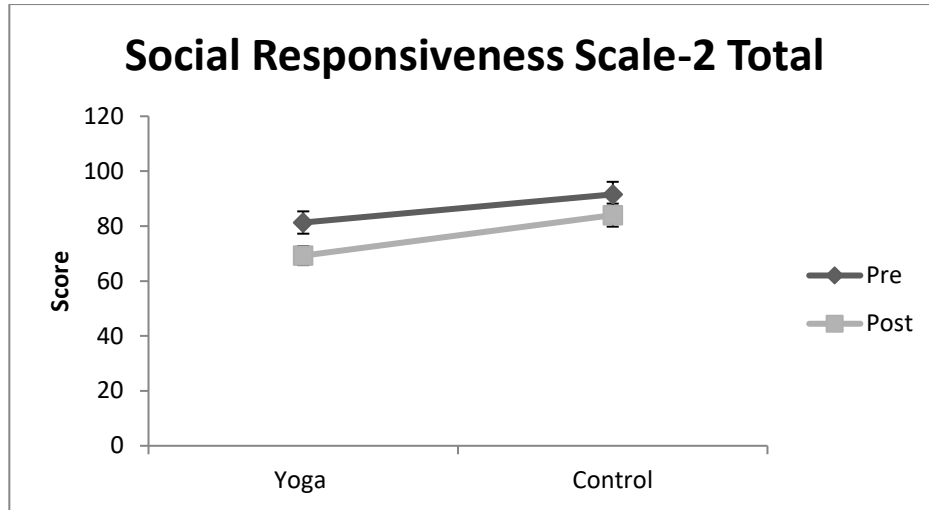


Figure 6.4.1 Pre-post changes in SRS-2 Total Scores

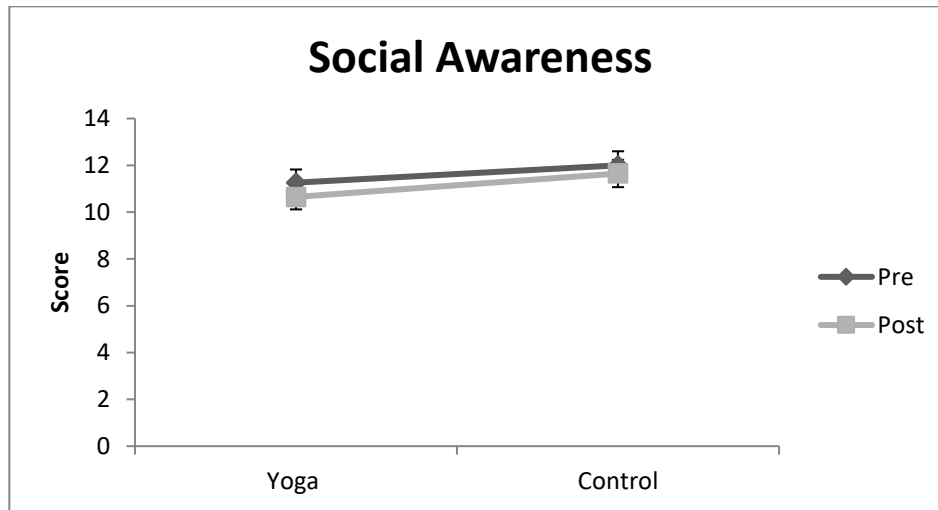


Figure 6.4.2 Pre-post changes in Social Awareness

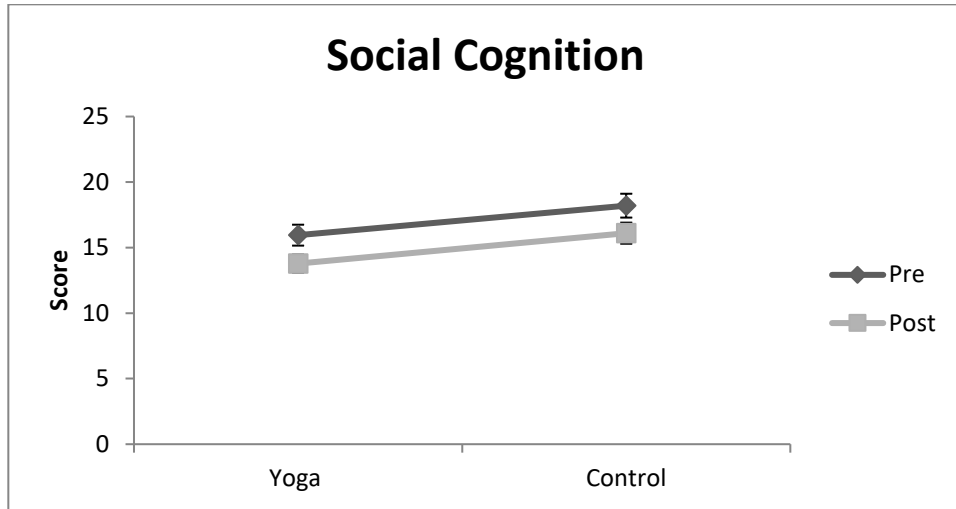


Figure 6.4.3 Pre-post changes in Social Cognition

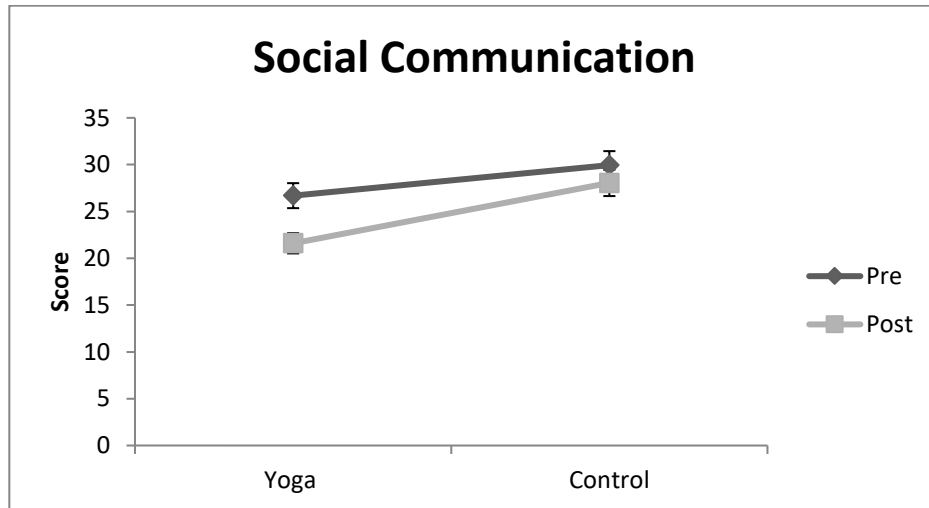


Figure 6.4.4 Pre-post changes in Social Communication



Figure 6.4.5 Pre-post changes in Social Motivation

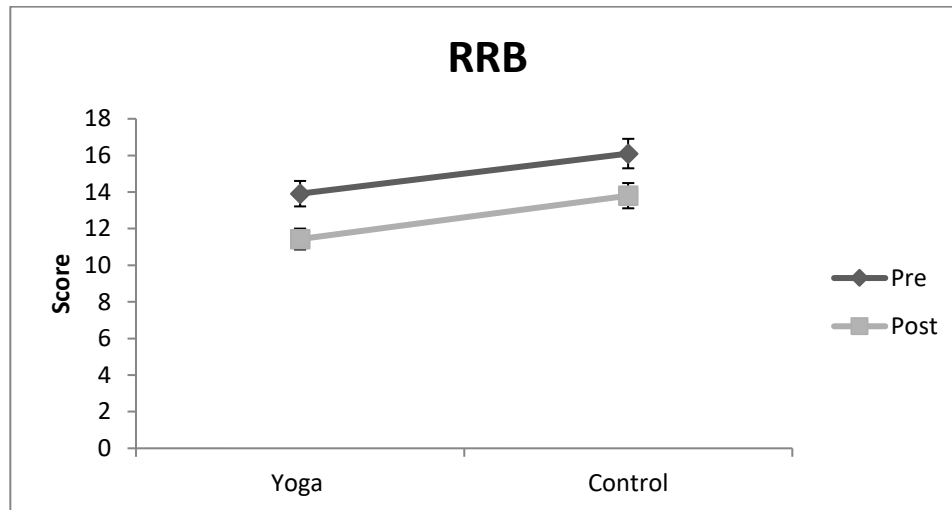


Figure 6.4.6 Pre-post changes in RRB

6.5 PROBLEM BEHAVIORS

The baseline was matched for all the variables in ABC-2 except for Subscale II (Social Withdrawal). Table 6.3 shows, a significant difference between times in Subscale III (Stereotypic Behavior) [$F(1,41) = 6.81, p = .013, \eta^2 = 0.142$] and Subscale IV (Hyperactivity/Noncompliance) [$F(1,41) = 9.25, p = 0.004, \eta^2 = .184$], Subscale V (Inappropriate Speech) [$F(1,41) = 5.99, p = .019, \eta^2 = .127$]. Further post hoc Bonferroni showed that there was a significant decrease in scores for Subscale III (Stereotypic Behavior) $p = .006$ and Subscale IV (Hyperactivity/Noncompliance) $p = .002$ and Subscale (Inappropriate Speech) $p = .028$ in the *yoga* group but non-significant changes in the Control group. The Social Withdrawal was analyzed with the ANCOVA test with baseline pretest values as the covariate, which showed an overall statistically significant difference in the post-intervention between groups [$F(1,41) = 4.19, p = 0.005$] after their means were adjusted for pre-intervention values.

6.5.1 COMPARISON OF MEANS AND STANDARD DEVIATIONS OF ABC-2 SCORES PRE AND POST-INTERVENTION

ABC-2	Variable	Group M (SD)				F	df	Group Time*	
		Yoga (n= 23)		Control (n= 20)				p-value	Partial eta square(η^2)
		Pre	Post	Pre	Post				
	Irritability	8.96 (9.29)	6.7 (6.6)	15.15 (11.97)	12.2 (10.29)	.163	1,41	.688	.004
	Social Withdrawal	7.87 (7.44)	5.96 (6.07)	14.9 (12.02)	12.9 (8.95)	.005	1,41	.005	.001
	Stereotypic Behavior	5.74 (5.35)	3.83** (3.43)	6.65 (5.31)	6.05 (5.14)	1.86	1,41	.180	.043
	Hyperactivity	14.3 (13.37)	9.22** (8.82)	16.8 (14.35)	15.05 (13.32)	2.2	1,41	.145	.051
	Inappropriate Speech	3.48 (4.25)	2.43* (3.01)	4.15 (4.42)	3.55 (4.11)	.436	1,41	.513	.011
		Legend: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ within-group pre-to-post comparison * $@p < 0.05$, @ $@p < 0.01$, @ $@@p < 0.001$ post with post-to-post comparison Bold denotes group-time interaction							

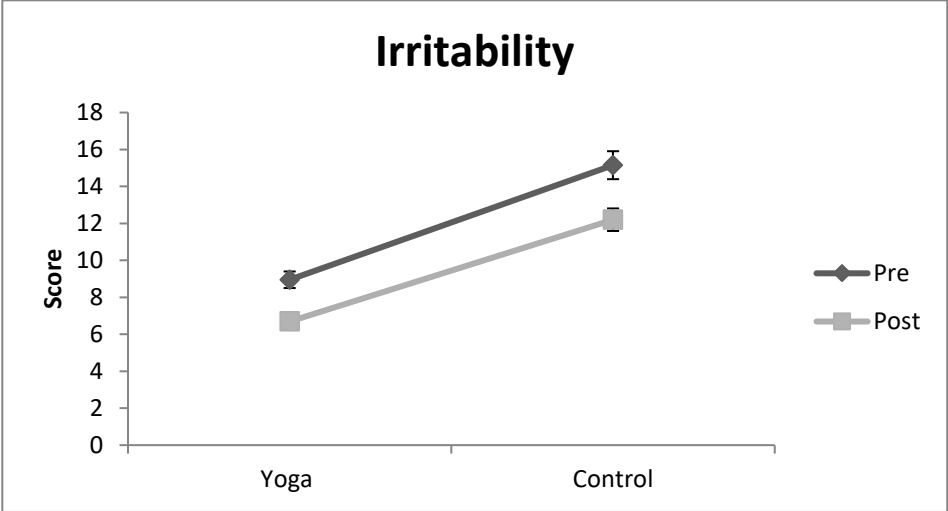


Figure 6.5.1 Pre-post changes in Irritability

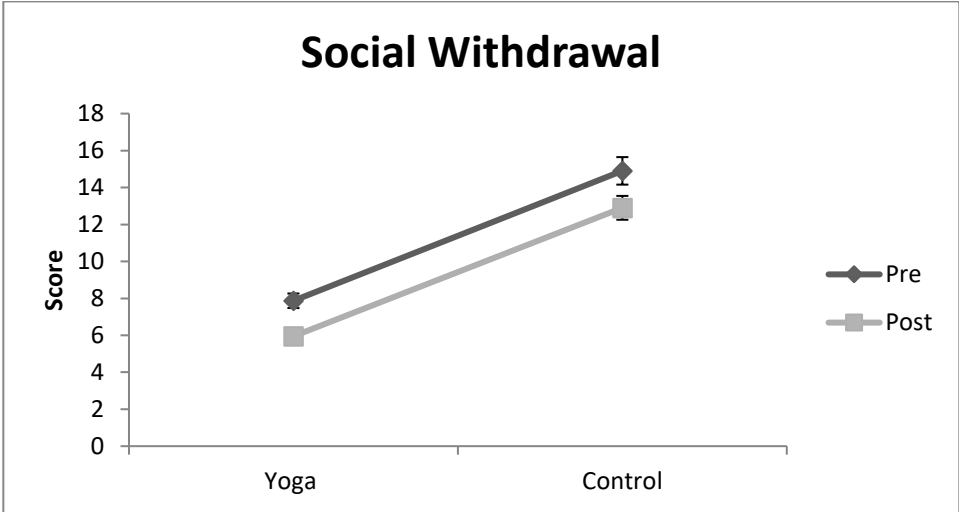


Figure 6.5.2 Pre-post changes in Social Withdrawal



Figure 6.5.3 Pre-post changes in Stereotypic Behavior

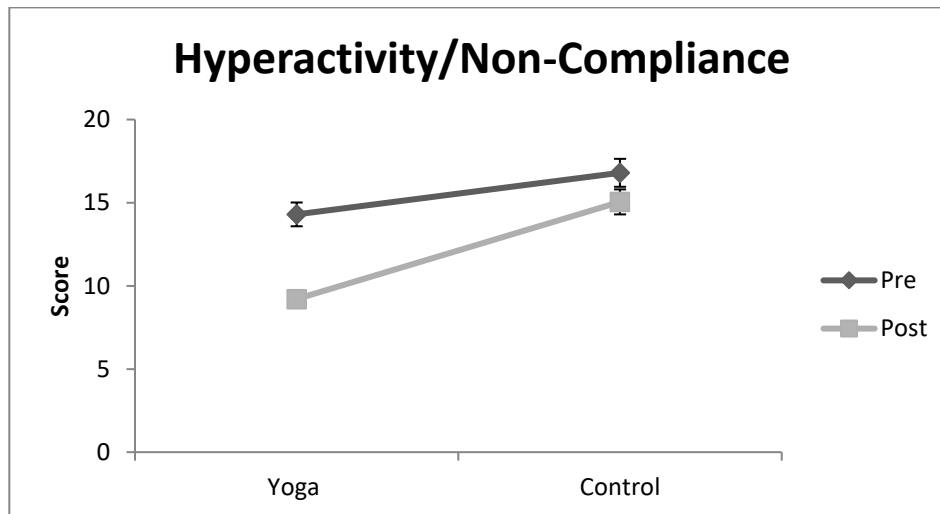


Figure 6.5.4 Pre-post changes in Hyperactivity/Non-Compliance

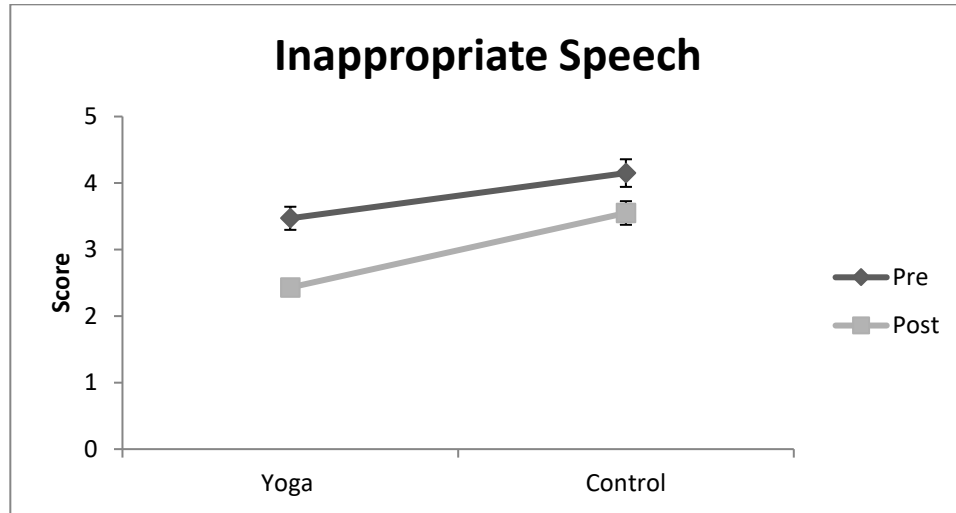


Figure 6.5.5 Pre-post changes in Inappropriate Speech

6.6 MOTOR PROFICIENCY

The baseline was matched for all the variables in BOT- 2 Brief. Table 6.4 shows, a significant group time interaction for the total BOT2 scores [$F(1,41) = 8.0, p = 0.007, \eta^2 = 0.170$], Subtest II (Manual Coordination) [$F(1,41) = 5.5, p = 0.024, \eta^2 = .124$], Subtest III (Body Coordination) [$F(1,41) = 6.6, p = .014, \eta^2 = .145$]. Further post hoc Bonferroni showed that there was a significant decrease in score for Total BOT 2 scores ($p = .001$), Manual Coordination ($p = .034$), Body Coordination ($p = .004$) and Strength & Agility ($p = .002$) in the *yoga* group but non-significant change in the Control group. Manual Coordination ($p = 0.042$) found significant change when post score compared between groups.

6.6.1 ANOVA COMPARISON OF MEANS AND STANDARD DEVIATIONS OF BOT-2 BRIEF SCORES PRE AND POST-INTERVENTION

Variable	Group M (SD)				F	df	Group Time*	
	Yoga (n= 23)		Control (n= 18)				p value	Partial eta square(η^2)
	Pre	Post	Pre	Post				
BOT-2 Brief Total	7.65 (7.7)	11.48** (10.64)	6.89 (8.26)	5.94 (8.53)	8.0	1,41	.007*	.170
Fine Manual Coordination	3.52 (4.53)	3.73 (4.29)	2.88 (4.78)	2.55 (4.48)	.383	1,41	0.54	.010
Manual Coordination	1.86 (1.57)	2.95* [@] (3.26)	1.22 (1.39)	1.88 (2.37)	5.5	1,41	.024*	.124
Body Coordination	1.69 (2.16)	3.17** (2.91)	1.88 (2.37)	1.5 (2.33)	6.6	1,41	.014*	.145
Strength and Agility	.478 (1.16)	1.56** (1.77)	.333 (.766)	.722 (1.22)	1.99	1,41	.166	.049
Legend: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ within-group pre to post comparison * [@] $p < 0.05$, ^{@@} $p < 0.01$, ^{@@@} $p < 0.001$ post with post-to-post comparison Bold denotes group-time interaction								

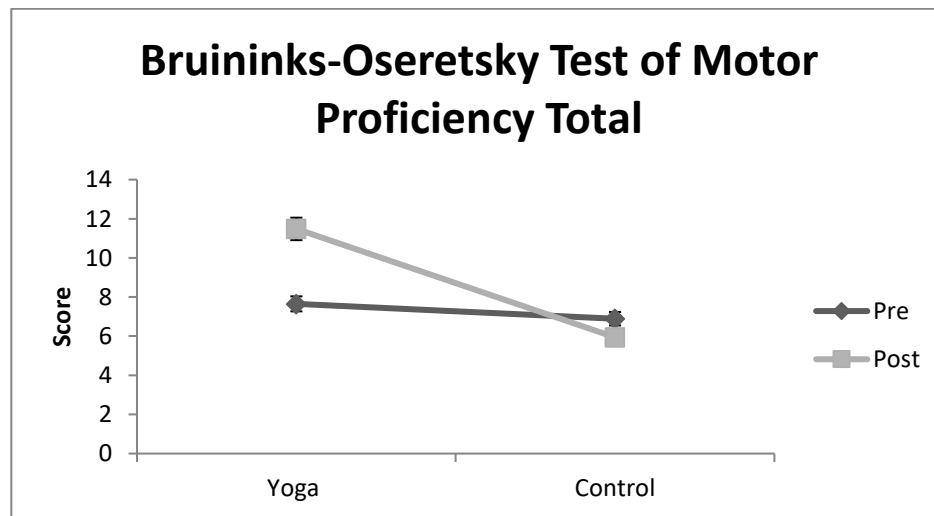


Figure 6.6.1 Pre-post changes in BOT-2 Brief

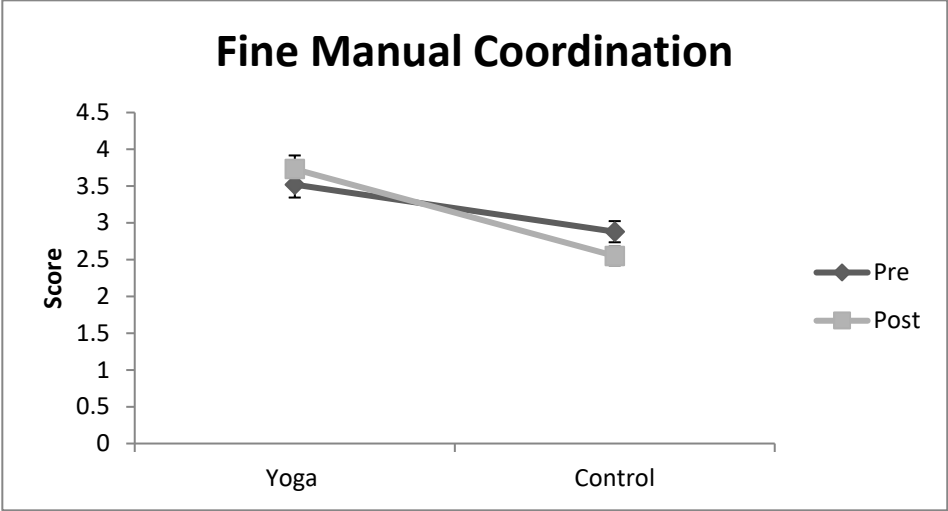


Figure 6.6.2 Pre-post changes in Fine Manual Coordination

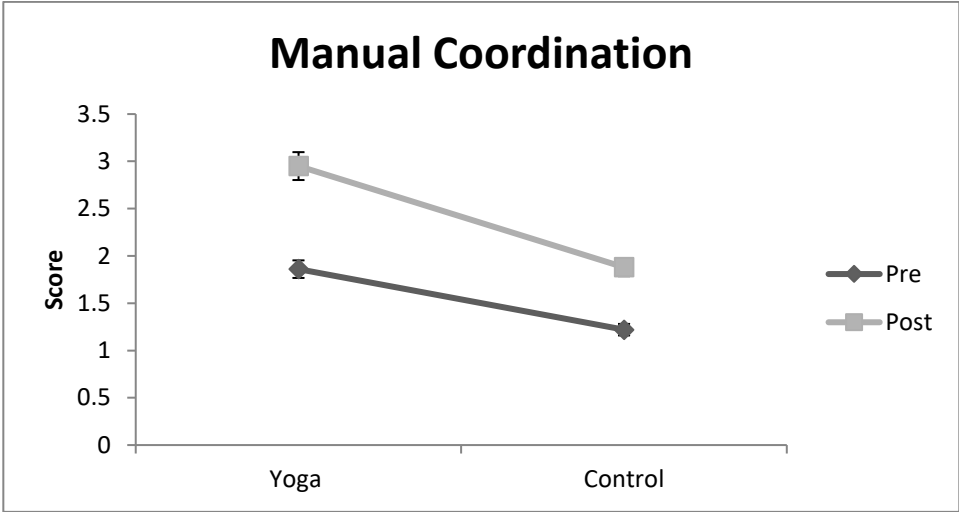


Figure 6.6.3 Pre-post changes in Manual Coordination

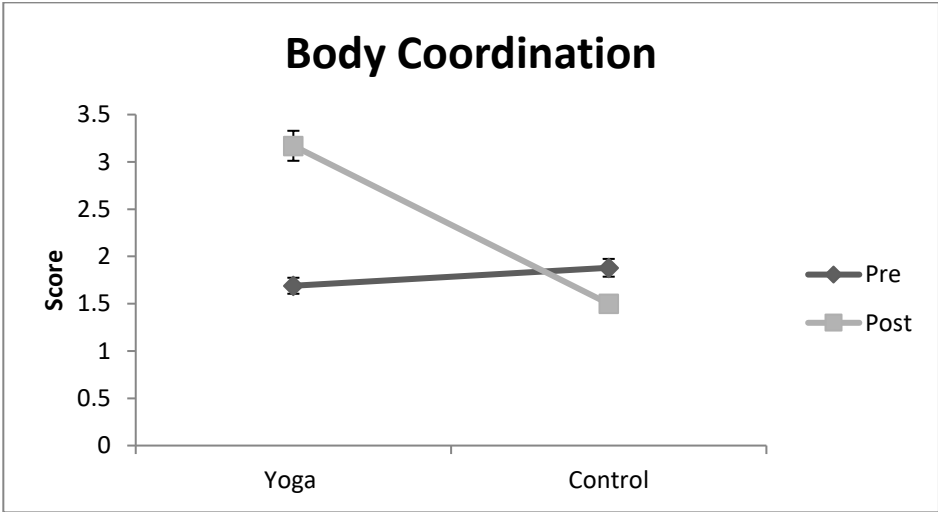


Figure 6.6.4 Pre-post changes in Body Coordination

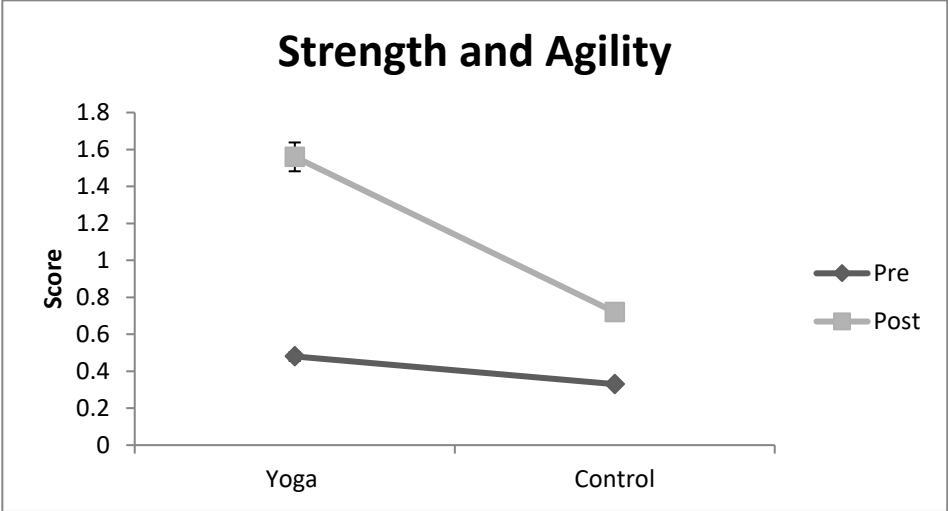


Figure 6.6.5 Pre-post changes in Strength and Agility

6.7 FOOD AND DIGESTION PROBLEMS

Tables 6.7.1 and 6.7.2 show no significance post-intervention in the *yoga* group on any of the items in the food and digestion checklist.

TABLE 6.7.1 GI ITEMS FOR FOOD AND DIGESTION PROBLEMS- WILCOXON SIGNED-RANK TEST (WITHIN-GROUP)

Items	Yoga group (M/SD)		Control group (M/SD)		z-score		Asymp. Sig. (2-tailed)	
	Pre	Post	Pre	Post	Yoga	Control	Yoga	Control
GI I-1	2.35 (1.3)	2.04(1.26)	1.85(1.13)	2(1.29)	-1.323 ^b	-.465 ^c	0.186	0.642
GI I-2	1.65(.83)	1.78(1.08)	1.9(1.29)	2.1(1.25)	-.500 ^c	-.449 ^c	0.617	0.653
GI I-3	1.35(.98)	1.39(1.07)	1.3(.80)	1.1(.308)	.000 ^d	-.962 ^b	1.0	0.336
GI I-4	2(1.53)	1.87(1.35)	2.65(1.46)	2.2(1.28)	-.319 ^b	-1.937 ^b	0.75	0.053
GI I-5	2.3(1.25)	2(1.2)	2.35(1.3)	2.55(1.43)	-.834 ^b	-.568 ^c	0.404	0.570
GI I-6	2.04(1.43)	2.35(1.43)	1.7(1.03)	1.6(1.09)	-1.166 ^c	-.333 ^c	0.244	0.739
GI I-7	2.04(1.33)	2.13(1.39)	2.5(1.63)	2.55(1.46)	-.361 ^d	-.265 ^b	0.718	0.791
GI I-8	2.09(1.34)	2.04(1.22)	2.05(1.43)	2.65(1.66)	-.136 ^b	-1.705 ^b	0.891	0.088
GI I-9	3.22(1.34)	2.87(1.18)	3.1(1.51)	3.55(1.31)	-1.279 ^b	-1.145 ^c	0.201	0.252
GI I-10	2.57(1.37)	2.26(1.35)	2.05(1.5)	2.4(1.5)	-.885 ^c	-.823 ^c	0.376	0.410
GI I-11	2.39(1.15)	2.26(1.17)	1.85(1.38)	2.05(1.39)	-.406 ^d	-.597 ^b	0.684	0.550
GI I-12	2.39(1.27)	2.61(1.55)	2.25(1.58)	2.35(1.38)	-.383 ^b	-.428 ^b	0.701	0.669
GI I-13	2(1.38)	1.91(1.41)	1.35(.87)	1.85(1.22)	-.399 ^b	-1.298 ^c	0.690	0.194
GI I-14	1.74(1.32)	1.57(1.12)	2.1(1.44)	1.7(1.3)	-.638 ^c	-1.381 ^c	0.524	0.167
GI I-15	1.74(.81)	1.96(1.29)	1.65(1.26)	1.9(1.33)	-.749 ^d	-.710 ^b	0.454	0.478
GI I-16	1.83(1.43)	2.13(1.63)	1.5(1.23)	1.7(1.12)	-1.063 ^b	-.782 ^b	0.288	0.434

Note* GI I (Gastrointestinal items), a. Wilcoxon signed-rank test; b. based on positive ranks; c. based on negative ranks; d. the sum of negative ranks is equal to the sum of positive ranks

TABLE 6.7.2 GI ITEMS FOR FOOD AND DIGESTION PROBLEMS -MANN-WHITNEY TEST (BETWEEN-GROUP)

Group	Ranks				Signed
	Mann-Whitney Test				Test Statistics
<i>Yoga</i> (n=23) Control (n=20)	Mean Rank		Sum of Ranks		Mann-Whitney U
	<i>Yoga</i>	Control	<i>Yoga</i>	Control	
GI_1_Pre	23.93	19.78	550.50	395.50	185.5
GI_1_Post	22.26	21.7	512	434	224
GI_2_Pre	21.59	22.48	496.5	449.5	220.5
GI_2_Post	20.52	23.7	472	474	196
GI_3_Pre	21.87	22.15	503	496.5	227
GI_3_Post	22.43	21.5	516	430	220
GI_4_Pre	19.43	24.95	447	499	171
GI_4_Post	20.09	24.2	462	484	186
GI_5_Pre	21.7	22.35	499	447	223
GI_5_Post	19.5	24.88	448.5	497.5	172.5
GI_6_Pre	23.09	20.75	531	415	205
GI_6_Post	24.85	18.73	571.5	374.5	164.5
GI_7_Pre	20.43	23.8	470	476	194
GI_7_Post	20.28	23.98	466.5	479.5	190.5
GI_8_Pre	22.39	21.55	515	431	221
GI_8_Post	20.11	24.18	462.5	483.5	186.5
GI_9_Pre	22.2	21.78	510.5	435.5	225.5
GI_9_Post	18.87	25.6	434	512	158
GI_10_Pre	24.15	19.53	555.5	390.5	180.5
GI_10_Post	21.28	22.83	489.5	456.5	213.5
GI_11_Pre	18.53	25.02	575.5	370.5	160.5
GI_11_Post	23.09	20.75	531	415	205
GI_12_Pre	22.83	21.05	525	421	211
GI_12_Post	23.07	20.78	530.5	415.5	205.5
GI_13_Pre	24.52	19.1	382	564	172
GI_13_Post	22.11	21.88	508.5	437.5	227.5
GI_14_Pre	20.67	23.53	475.5	470.5	199.5
GI_14_Post	21.61	22.45	497	449	221
GI_15_Pre	23.89	19.83	549.5	396.5	186.5
GI_15_Post	22.22	21.75	511	435	225
GI_16_Pre	23.04	20.80	530	416	206
GI_16_Post	22.83	21.05	525	421	211

GI = Gastrointestinal Item; a. Wilcoxon Signed Ranks Test; b. Based on positive ranks , c. Based on negative ranks; d. The sum of negative ranks equals the sum of positive ranks

6.8 SLEEP DISORDERS

Table 6.8.1 and 6.8.9 shows no significance in the *yoga* group post-intervention on any of the items in the sleep checklist.

TABLE 6.8.1 SLEEP ITEMS FOR SLEEP DISORDERS - WILCOXON SIGNED-RANK TEST (WITHIN-GROUP)

Items	Yoga group (M/SD)		Control group (M/SD)		z-score		Asymp. Sig. (2-tailed)	
	Pre	Post	Pre	Post	Yoga	Control	Yoga	Control
SI-1	2.09(1.53)	1.7(1.1)	1.7(1.21)	1.4(.88)	-1.631 ^b	-1.566 ^b	.103	.226
SI-2	2.26(1.28)	1.65(1.02)	1.55(.945)	1.5(.82)	-1.566 ^b	-.499 ^b	.117	.618
SI-3	2.04(1.14)	1.96(1.1)	2.75(1.41)	2.55(1.31)	-.397 ^c	-.556 ^c	.691	.578
SI-4	1.96(1.33)	1.61(1.07)	1.6(.94)	1.65(1.18)	-1.543 ^c	-.172 ^b	.123	.863
SI-5	2.91(1.37)	2.17(1.37)	2.15(1.13)	2.05(1.14)	-1.953 ^b	-.454 ^b	.051	.65
SI-6	2.22(1.38)	2(1.41)	1.9(1.16)	1.6(.88)	-.929 ^b	-.964 ^b	.353	.335
SI-7	2.61(1.4)	2.74(1.32)	2.55(1.09)	2.1(.96)	-.145 ^c	-1.727 ^c	.885	.084
SI-8	1.74(1.25)	1.74(1.32)	1.85(1.34)	2(1.58)	-.085 ^c	-.258 ^c	.932	.796
SI-9	1.74(1.48)	1.52(1.27)	1.65(1.26)	1.75(1.55)	-.736 ^b	-.340 ^b	.461	.734
SI-10	1.43(.788)	1.48(.79)	1.65(.988)	1.85(1.08)	-.123 ^b	-1.265 ^b	.902	.206
SI-11	3.09(1.37)	2.83(1.23)	3.05(1.57)	3(1.45)	-.966 ^c	-.344 ^c	.334	.731
SI-12	1.83(1.15)	1.57(.94)	1.6(1.04)	1.7(1.17)	-.934 ^c	-.530 ^b	.351	.596
SI-13	3.09(1.56)	3.22(1.41)	3.6(1.31)	3.55(1.31)	-.562 ^b	-.312 ^b	.574	.755
SI-14	1.57(.84)	1.65(.93)	2.25(1.41)	2.2(1.05)	-.513 ^b	-.247 ^b	.608	.805
SI-15	1.96(1.39)	1.57(1.03)	2.05(1.57)	1.55(1.19)	-1.628 ^c	-2.271 ^c	.103	.023

Note * SI (Sleep items), a. Wilcoxon signed-rank test; b. based on positive ranks; c. based on negative ranks; d. the sum of negative ranks is equal to the sum of positive ranks

TABLE 6.8.2 SLEEP ITEMS FOR SLEEP DISORDERS -MANN-WHITNEY TEST (BETWEEN-GROUP)

Group	Ranks				Signed
<i>Yoga</i> (n=23) <i>Control</i> (n=20)	Mann-Whitney Test				Test Statistics
	Mean Rank		Sum of Ranks		Mann-Whitney U
	<i>Yoga</i>	<i>Control</i>	<i>Yoga</i>	<i>Control</i>	
SI-1_Pre	23.2	20.63	533.5	412.5	202.5
SI -1_Post	23.48	20.30	540	406	196
SI - 2_Pre	25.09	18.45	577	369	159
SI- 2_Post	22.43	21.5	516	430	220
SI-3_Pre	19	25.45	437	509	161
SI-3_Post	19.39	25	446	500	170
SI-4_Pre	23.07	20.78	530.5	509	205.5
SI-4_Post	22.28	21.68	512.5	433.5	223.5
SI-5_Pre	25.24	18.28	580.5	365.5	155.5
SI-5_Post	22.17	21.8	510	436	226
SI- 6_Pre	23.17	20.65	533	413	203
SI-6_Post	22.98	20.88	528.5	417.5	207.5
SI-7_Pre	21.98	22.03	505.5	440.5	229.5
SI- 7_Post	24.87	18.7	572	374	164
SI-8_Pre	21.52	22.55	495	451	219
SI-8_Post	21.3	22.8	490	456	214
SI-9_Pre	21.91	22.1	504	442	228
SI-9_Post	21.63	22.43	497.5	448.5	221.5
SI-10_Pre	20.98	23.18	482.5	463.5	206.5
SI-10_Post	20.24	24.03	465.5	480.5	189.5
SI-11_Pre	21.98	22.03	505.5	440.5	229.5
SI -11_Post	21.3	22.8	490	456	214
SI-12_Pre	23	20.85	529	417	207
SI-12_Post	21.54	22.53	495.5	450.5	219.5
SI-13_Pre	20.22	24.05	465	481	189
SI-13_Post	20.63	23.58	474.5	471.5	198.5
SI-14_Pre	19.3	25.1	444	502	168
SI -14_Post	19.04	25.4	438	508	162
SI-15_Pre	22.02	21.98	506.5	439.5	229.5
SI-15_Post	22.43	21.5	516	430	220

S I = Sleep Item; a. Wilcoxon Signed Ranks Test; b. Based on positive ranks
c. Based on negative ranks; d. The sum of negative ranks equals the sum of positive ranks

6.9 FEASIBILITY OF CONDUCTING A REGULAR GROUP *YOGA* PROGRAM FOR CHILDREN WITH ASD

The percentage of PPR under the five *Yoga* components of the *Yoga* feedback checklist were: Chanting—75.49%, Preparatory practices—94.12%, *Yoga* postures— 94.32%, Breathing practices—75.19%, and Relaxation—91.12%, with Total PPR—86.15%.