

6. RESULTS

In this section, the collected data is analyzed by employing statistical software. The data is presented through tables systematically. Step-wise results along with scientific as well as logical interpretations have been presented. Further, the results are discussed and justified with sound reasoning to draw definite conclusions.

6.1 Results on the development of Yoga Module

CVR was calculated for all 32 practices of the designed Yoga Modula for children with intellectual disability. Among them, 31 practices with $CVR \geq 0.42$ included in the validated YM. The practice with $CVR < 0.42$ i.e. *Ardha Halāsana* was excluded as it was either a complimentary pose for an important posture to align the body and mind level or it was just an extra practice as *Halāsana* already existed in the selection module. Due to these reasons, the experts did not consider this as essential for children with intellectual disability. Apart from this practice, all other 31 practices were considered to be essential for children with intellectual disability. This made the final CVR ratio satisfy the minimum value as per Lawshe's CVR ratio. Thus, the data analysis shows that out of 32 YM practices, 31 indicat significant content validity. [Table 6.1], [Table 6.2], [Table 6.3]. This result is based on the frequency, length, intensity of the intervention, teacher qualification, and setting which were rated and made blinded for validity.

Table 6.1

Selected YM practices (loosening exercises) by Yoga Experts with their CVR

| No. | Name of YM Practices | CVR |
|------------|-------------------------------|------------|
| 1. | Hand rotation front and back | 0.73 |
| 2. | Twisting | 1.00 |
| 3. | Side arch hand right and left | 0.91 |
| 4. | Forward and backward bending | 0.91 |
| 5. | Side Bending | 0.82 |

YM = Yoga Module, CVR = Content Validity Ratio

Table 6.2

Selected YM practices (postures) by yoga experts with their CVR

| No. | Name of the YM practices | CVR |
|------------|---------------------------------|------------|
| 1. | <i>Ardhakaṭīcakrāsana</i> | 0.55 |
| 2. | <i>Ardhacakrāsana</i> | 0.82 |
| 3. | <i>Pādahasthāsana</i> | 0.91 |
| 4. | <i>Trikonāsana</i> | 0.82 |
| 5. | <i>tāḍāsana</i> | 0.91 |
| 6. | <i>Adhomukhaśvānāsana</i> | 0.55 |
| 7. | <i>Vajrāsana</i> | 0.64 |
| 8. | <i>Jānuśīrāsana</i> | 0.55 |

| | | |
|-----|------------------------|------|
| 9. | <i>Uṣṭrāsana</i> | 0.73 |
| 10. | <i>Vakrāsana</i> | 0.73 |
| 11. | <i>Viparitakarṇī</i> | 0.45 |
| 12. | <i>Halāsana</i> | 0.45 |
| 13. | <i>Pavanamuktāsana</i> | 0.73 |
| 14. | <i>Setubandhāsana</i> | 0.91 |
| 15. | <i>Savāsana</i> | 0.91 |
| 16. | <i>Bhujāṅgāsana</i> | 0.82 |
| 17. | <i>Salabhāsana</i> | 0.64 |
| 18. | <i>Dhanurāsana</i> | 0.73 |
| 19. | <i>Makarāsana</i> | 0.73 |

YM = Yoga Module, CVR= Content Validity Ratio

Table 6.3
Selected YM Practices (Pranayama and meditation) by
Yoga experts with their CVR

| No. | Name of the YM practices | CVR |
|-----|----------------------------|------|
| 1. | <i>Bhastrikā</i> | 1.00 |
| 2. | <i>Dīrgha Svasana</i> | 0.91 |
| 3. | <i>Nāḍīśudhi Prānāyāma</i> | 0.45 |
| 4. | <i>Bhrāmarī Prānāyāma</i> | 0.91 |
| 5. | <i>Nādānusandhāna</i> | 0.91 |
| 6. | <i>A+U+M Chanting</i> | 0.91 |
| 7. | <i>Music</i> | 0.73 |

YM = Yoga Module, CVR = Content Validity Ratio

6.2 Results on Pilot Study

Thirteen children with intellectual disability were intervened with validated Yoga Modul, which consisted of 31 practices with $CVR \geq 0.42$. Assessments were completed at the baseline and after 1-month of intervention. All the subjects completed the intervention; no adverse effects were noticed during the study. The calculated data was analyzed using a paired sample t-test, which showed a significant change in flexibility ($t = 6.35$, $df = 12$, $p < 0.001$); strength of abdominal muscles ($t = 6.49$, $df = 12$, $p < 0.001$); and static balance ($t = 3.35$, $df = 12$, $p < 0.05$) after the yoga training intervention. The results are presented in Table 6.4.

Table 6.4
Descriptive Statistics and t-test results for within the group
Comparison in flexibility, strength of abdominal
Muscles and static balance

| Variable | Pre-Mean ± SD | Post Mean ± SD | t value | Sig. | 95% CI for mean | |
|--|------------------|-------------------|---------|-------|-----------------|-------|
| | | | | | Lower | Upper |
| Flexibility (Cm) | 11.92 (±8.05) | 17.00 (±8.54) | -6.37 | 0.001 | -6.81 | -3.34 |
| Strength of abdominal muscles (Number) | 10.38 (±1.71) | 14.31 (±2.72) | -6.49 | 0.001 | -5.23 | -2.60 |
| Static balance (Sec) | 5.00 (±4.12) | 7.62 (±4.0) | -3.35 | 0.006 | -4.31 | -0.91 |

6.3 Results on Demographic Variables

The results on the demographic data are presented in Table 6.5.

Table 6.5
Demographic Characteristics of Participants

| Variables | Yoga Group (n = 32) | | Control Group (n = 29) | |
|-----------|---------------------|--------|------------------------|--------|
| | Mean | SD | Mean | SD |
| Age | 12.37 | ±1.43 | 13.03 | ±1.70 |
| Height | 139.53 | ±11.47 | 142.75 | ±13.52 |
| Weight | 35.03 | ±9.96 | 36.81 | ±13.30 |
| BMI | 17.69 | ±3.37 | 17.96 | ±3.93 |

6.4 Results of within group comparison in Health-Related Physical Fitness

6.4.1 Results of within group comparison in Cardiovascular Efficiency

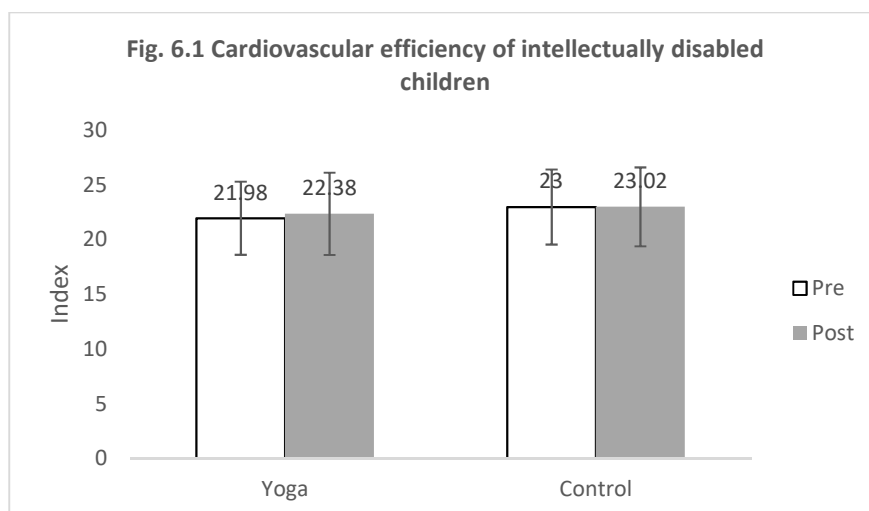
The results of the cardiovascular efficiency among the children with intellectual disability who participated in the experimental and control group are presented in Table 6.6 and Fig. 6.1, which indicate that

- The results of the paired sample t- test show that the mean cardiovascular efficiency differs before the yoga training (M = 21.98, SD = 3.35) and after the yoga training intervention (M = 22.38, SD = 3.43) at the 0.001 level of significance ($t = 4.16$, $df = 31$, $n = 32$, $p < 0.001$, 95% CI for the mean difference -0.58 to -0.20). On average cardiovascular efficiency increased 0.4 (index) after the yoga training intervention.

- Further, the results of the paired sample t- test in the control group show that the mean cardiovascular efficiency did not differ (M = 23.00, SD = 3.76) after the completion of the controlled period of three months (M = 23.02, SD = 3.61) even at 0.05 level of significance (t = 0.53, df = 28, n = 29, p > 0.05, 95% CI for the mean difference-0.45 to 0.42). In fact, cardiovascular efficiency was not altered in the control group participants.

Table 6.6
Descriptive statistics and t-test results for cardiovascular efficiency

| Variable | Group | Pre M±SD | Post M±SD | Mean Difference | df | “t” value | Sig. |
|------------------------------|---------------------|------------------|------------------|--------------------|----|--------------|-------|
| Cardiovascular Efficiency | Yoga (n = 32) | 21.98 (±3.35) | 22.38 (±3.43) | 0.39 | 31 | 4.16 | 0.001 |
| | Control (n = 29) | 23.00 (±3.76) | 23.02 (±3.61) | 0.01 | 28 | 0.53 | 0.958 |



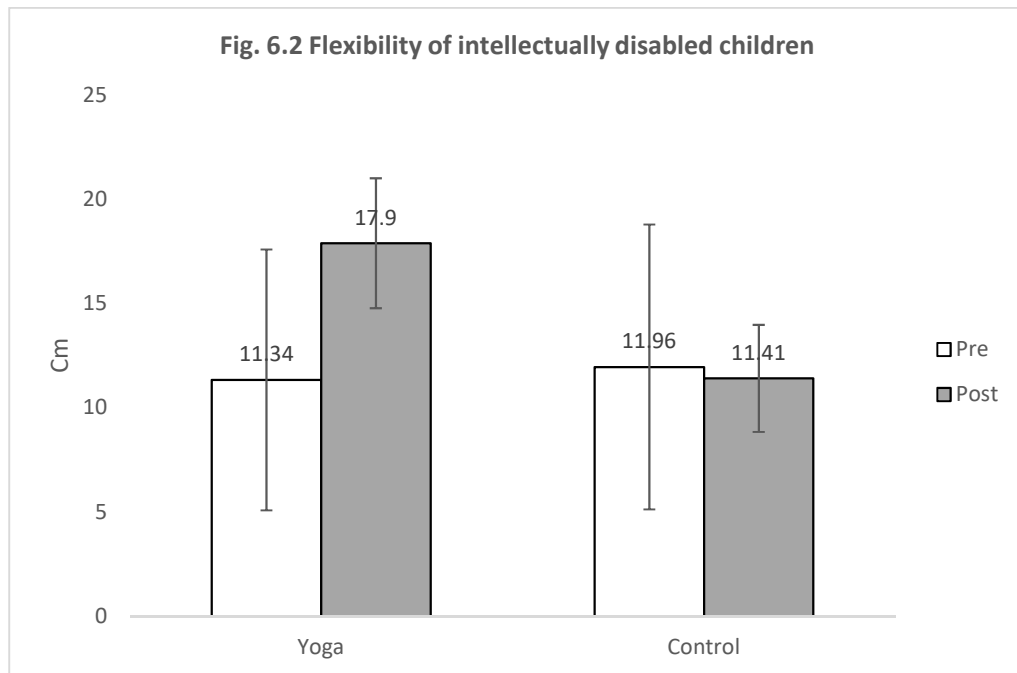
6.4.2 Results on Flexibility

The results of flexibility among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.7 and Fig. 6.2, which indicate that –

- The results of the paired sample t- test show that the mean flexibility differs before the yoga training ($M = 11.34$, $SD = 6.26$) and after the yoga training intervention ($M = 17.90$, $SD = 6.84$) at 0.001 level of significance ($t = 9.4$, $df = 31$, $p < 0.001$, 95% CI for the mean difference -7.98 to -5.14). On average flexibility was increased 6.56 (Cm) after the yoga training intervention.
- Further, the results of the paired sample t- test in the control group show that the mean flexibility did not differ ($M = 11.96$, $SD = 3.12$) after the completion of the controlled period of three months ($M = 11.41$, $SD = 2.57$) even at 0.05 level of significance ($t = 1.51$, $df = 28$, $n = 29$, $p > 0.05$, 95% CI for the mean difference of 0.19 to 1.29). On average, flexibility was not improved in the control group participants.

Table 6.7
Descriptive statistics and t-test results for flexibility

| Variable | Group | Pre M±SD | Post M±SD | Mean Difference | df | “t” value | Sig. |
|-------------|---------------------|------------------|------------------|--------------------|----|--------------|-------|
| Flexibility | Yoga (n = 32) | 11.34 (±6.26) | 17.90 (±6.84) | 6.56 | 31 | 9.4 | 0.001 |
| | Control (n = 29) | 11.96 (±3.12) | 11.41 (±2.57) | 0.55 | 28 | 1.51 | 0.140 |



6.4.3 Results on Strength & Endurance of Abdominal Muscles

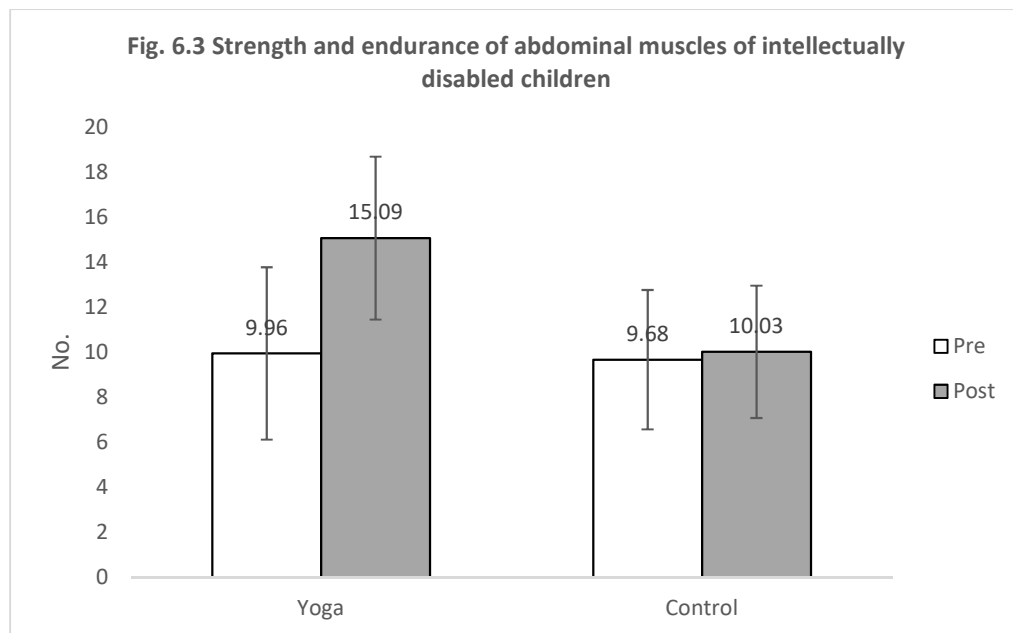
The results of the strength and endurance of the abdominal muscles among the children with intellectual disability of the experimental and control group are presented in Table 6.8 and Fig. 6.3, which indicate that

- The results of the paired sample t- test show that the mean strength and endurance of abdominal muscles differ before the yoga training ($M = 9.96$, $SD = 3.83$) and after the yoga training intervention ($M = 15.09$, $SD = 3.10$) at 0.001 level of significance ($t = 8.83$, $df = 31$, $n = 32$, $p < 0.001$, 95% CI for the mean difference of -6.30 to -3.90). On average strength and endurance of the abdominal muscles increased to 5.13 after the yoga training intervention.
- Further, the results of the paired sample t- test in the control group show that the mean strength and endurance of the abdominal muscles did not differ ($M = 9.68$, $SD = 3.62$) after the completion of the controlled period of three months ($M = 10.03$, $SD = 2.94$) even at 0.05 level of significance ($t = -0.99$, $df = 28$, $n = 29$, $p > 0.05$, 95% CI for the mean difference of -1.05 to 0.36). On average strength and endurance of the abdominal muscles was not altered in the control group participants.

Table 6.8

Descriptive statistics and t-test results for strength and Endurance of abdominal muscles

| Variable | Group | Pre M±SD | Post M±SD | Mean Difference | df | “t” value | Sig. |
|--|---------------------|-----------------|------------------|--------------------|----|--------------|-------|
| Strength & Endurance of Abdominal Muscles | Yoga (n = 32) | 9.96 (±3.83) | 15.09 (±3.10) | 5.12 | 31 | 8.83 | 0.001 |
| | Control (n = 29) | 9.68 (±3.62) | 10.03 (±2.94) | 0.34 | 28 | 0.99 | 0.331 |



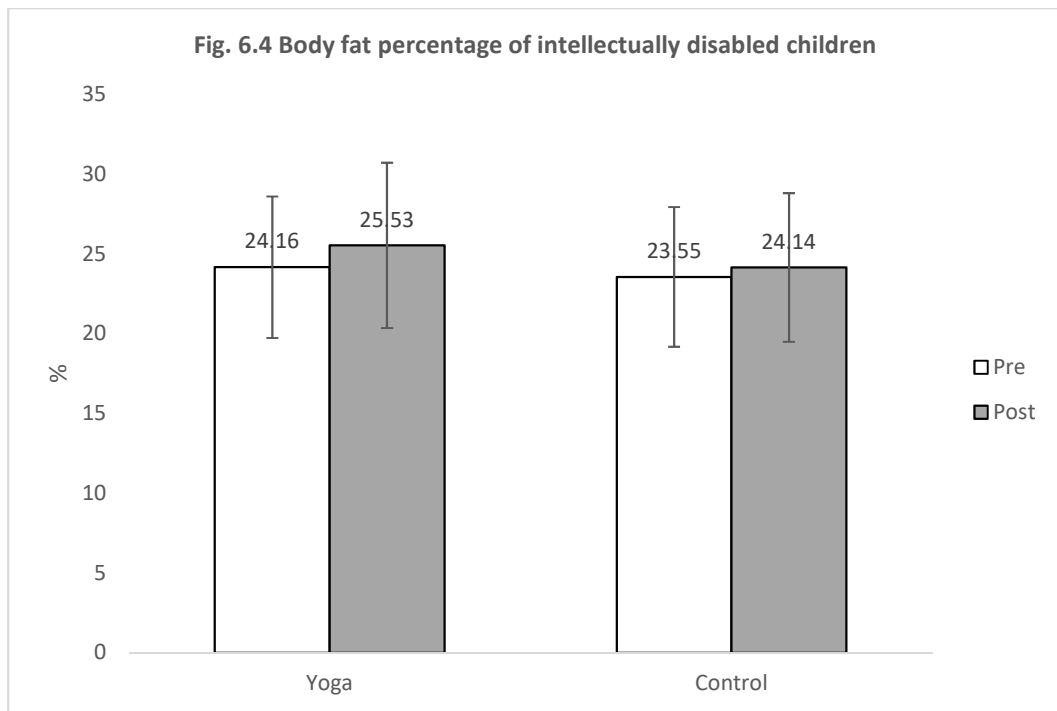
6.4.4 Results on Body Fat Percentage

The results of the body fat percentage among the children with intellectual disability who participated in the experimental and control group are presented in Table 6.9 and Fig.6.4, which indicate that

- The results of the paired sample t- test show that the mean body fat percentage did not differ before the yoga training ($M = 24.16$, $SD = 4.43$) and after the yoga training intervention ($M = 23.53$, $SD = 4.38$) even at 0.05 level of significance ($t = 1.67$, $df = 31$, $n = 32$, $p > 0.05$, 95% CI for the mean difference of -0.13 to 1.39). On average, the body fat percentage did not show any significant change after the yoga training intervention.
- Further, the results of the paired sample t- test in the control group show that the mean of the body fat percentage differs ($M = 23.55$, $SD = 5.18$) after the completion of the controlled period of three months ($M = 24.14$, $SD = 4.66$) at 0.01 level of significance ($t = -2.8$, $df = 28$, $n = 29$, $p < 0.01$, 95% CI for the mean difference of -1.01 to -0.15). On average, the body fat percentage increased 0.59 (%) among the control group participants.

Table 6.9
Descriptive statistics and t-test results for
body fat percentage

| Variable | Group | Pre M±SD | Post M±SD | Mean Difference | df | “t” value | Sig. |
|-----------|---------------------|------------------|------------------|--------------------|----|--------------|-------|
| Body Fat% | Yoga (n = 32) | 24.16 (±4.43) | 25.53 (±4.38) | 0.63 | 31 | 1.67 | 0.103 |
| | Control (n = 29) | 23.55 (±5.18) | 24.14 (±4.66) | 0.58 | 28 | 2.8 | 0.009 |



6.5 Results of within the group comparison in Psychomotor Abilities

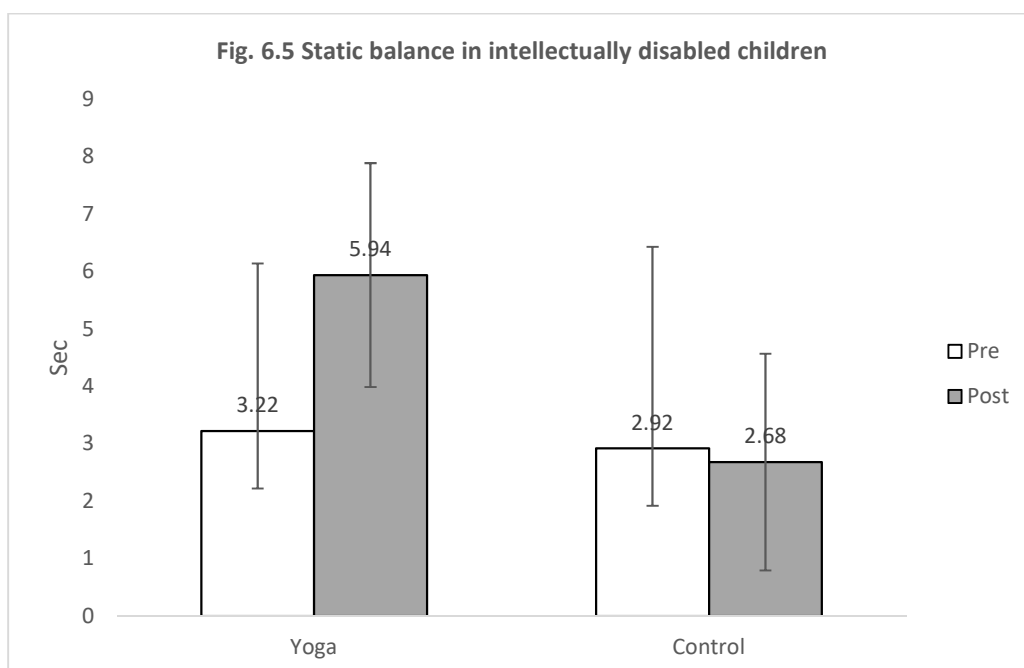
6.5.1 Results on the Static Balance

The results of the static balance among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.10 and Fig. 6.5, which indicate that –

- The results of the paired sample t- test show that the mean of static balance differs before the yoga training ($M = 3.22$, $SD = 2.92$) and after the yoga training intervention ($M = 5.94$, $SD = 3.51$) at 0.001 level of significance ($t = -9.47$, $df = 31$, $n = 32$, $p < 0.001$, 95% CI for the mean difference of -3.29 to -2.12). On average, the static balance increased to 2.72 seconds after the yoga training intervention.
- Further, the results of the paired sample t- test in the control group show that the mean of the static balance did not differ ($M = 2.92$, $SD = 1.95$) after the completion of the controlled period of three months ($M = 2.68$, $SD = 1.89$) even at 0.05 level of significance ($t = 0.94$, $df = 28$, $n = 29$, $p > 0.05$, 95% CI for the mean difference of -0.28 to 0.78). On average, the static balance was not altered in the control group participants.

Table 6.10
Descriptive statistics and t-test results for static balance

| Variable | Group | Pre M±SD | Post M±SD | Mean Difference | df | “t” value | Sig. |
|---------------------------|---------------------|-----------------|-----------------|--------------------|----|--------------|-------|
| Static Balance | Yoga (n = 32) | 3.22 (±2.92) | 5.94 (±3.51) | 2.71 | 31 | 9.47 | 0.001 |
| | Control (n = 29) | 2.92 (±1.95) | 2.68 (±1.89) | 0.24 | 28 | 0.94 | 0.354 |



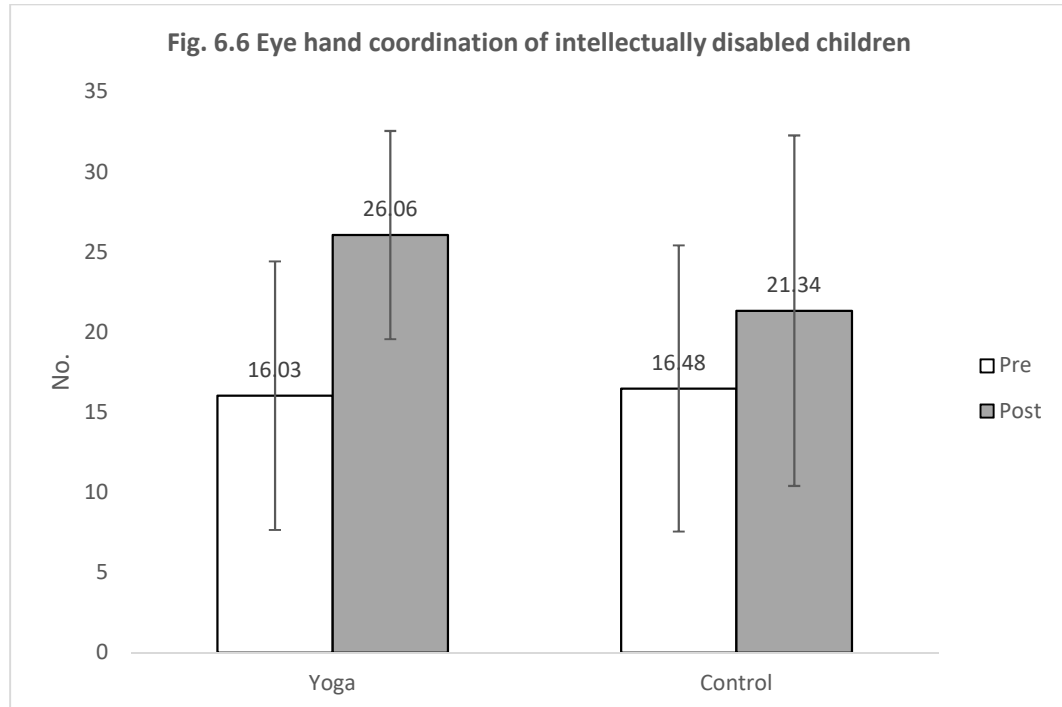
6.5.2 Results on Eye Hand Co-ordination

The results of eye-hand co-ordination among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.11 and Fig. 6.6, which indicate that –

- The results of the paired sample t- test show that the mean of the eye-hand co-ordination test differs before the yoga training ($M = 16.03$, $SD = 8.38$) and after the yoga training intervention ($M = 26.06$, $SD = 8.93$) at 0.001 level of significance ($t = 12.14$, $df = 31$, $n = 32$, $p < 0.001$, 95% CI for the mean difference of -11.71 to -8.34). On average, eye-hand co-ordination increased to 10.03 (No.) after the yoga training intervention.
- Further, the results of the paired sample t- test in the control group show that the mean of eye-hand co-ordination differs ($M = 16.48$, $SD = 6.50$) after the completion of the controlled period of three months ($M = 21.34$, $SD = 10.94$) at 0.01 level of significance ($t = -2.94$, $df = 28$, $n = 29$, $p < 0.001$, 95% CI for the mean difference of -8.23 to -1.48). On average, eye-hand co-ordination also improved in the control group participants.

Table 6.11
Descriptive statistics and t-test results for
eye hand coordination

| Variable | Group | Pre M±SD | Post M±SD | Mean Difference | df | “t” value | Sig. |
|----------------------------------|---------------------|------------------|-------------------|--------------------|----|--------------|-------|
| Eye Hand Coordination | Yoga (n = 32) | 16.03 (±8.38) | 26.06 (±8.93) | 10.03 | 31 | 12.14 | 0.001 |
| | Control (n = 29) | 16.48 (±6.50) | 21.34 (±10.94) | 4.86 | 28 | 2.94 | 0.006 |



6.5.3 Results on Agility

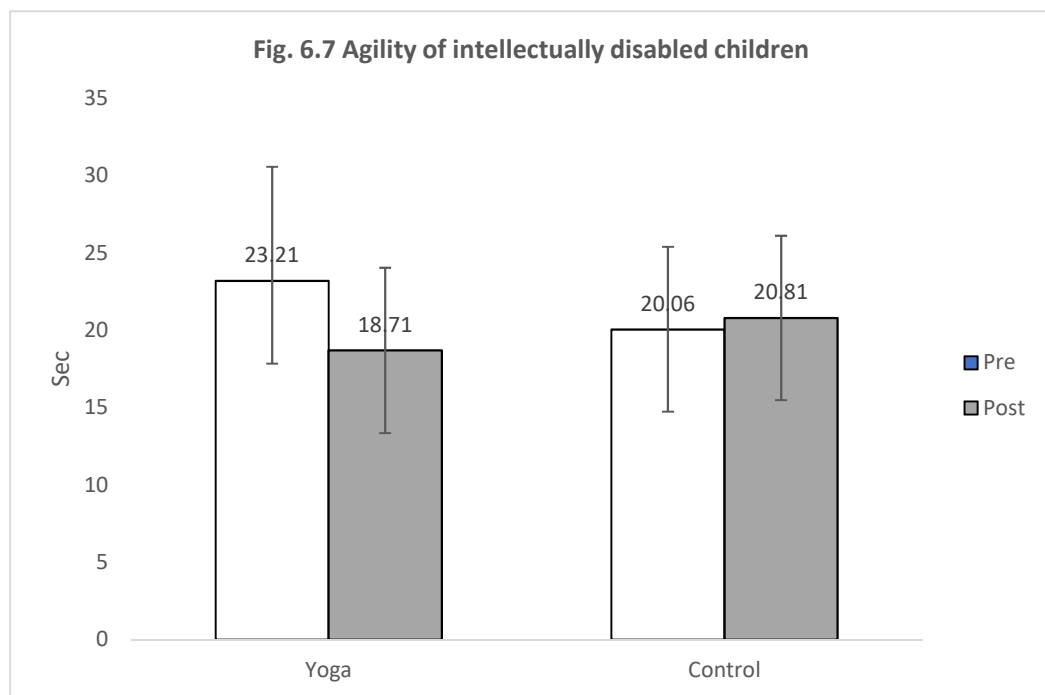
The results of agility among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.12 and Fig. 6.7, which indicate that –

- The results of the paired sample t- test show that the mean agility test differs before the yoga training (M = 23.21, SD = 7.38) and after the yoga training intervention (M = 18.71, SD = 5.35) at 0.001 level of significance (t = 3.41, df = 31, n = 32, p < 0.001, 95% CI for the mean difference of 1.81 to 7.18). On average, agility increased 4.5 (sec) after the yoga training intervention.
- Further, the results of the paired sample t- test in the control group show that the mean agility did not differ (M = 20.06, SD = 5.09) after the completion of the controlled period of three months (M = 20.81, SD = 5.32) even at 0.05 level of significance (t = -1.81, df = 28, n = 29, p > 0.05, 95% CI for the mean difference of -1.59 to 0.09). On average, agility was not altered among the control group participants.

Table 6.12

Descriptive statistics and t-test results for agility

| Variable | Group | Pre M±SD | Post M±SD | Mean Difference | df | “t” value | Sig. |
|----------|---------------------|------------------|------------------|--------------------|----|--------------|-------|
| Agility | Yoga (n = 32) | 23.21 (±7.38) | 18.71 (±5.35) | 4.49 | 31 | 3.41 | 0.002 |
| | Control (n = 29) | 20.06 (±5.09) | 20.81 (±5.32) | 0.75 | 28 | 1.81 | 0.080 |



6.5.4 Results on Reaction Time

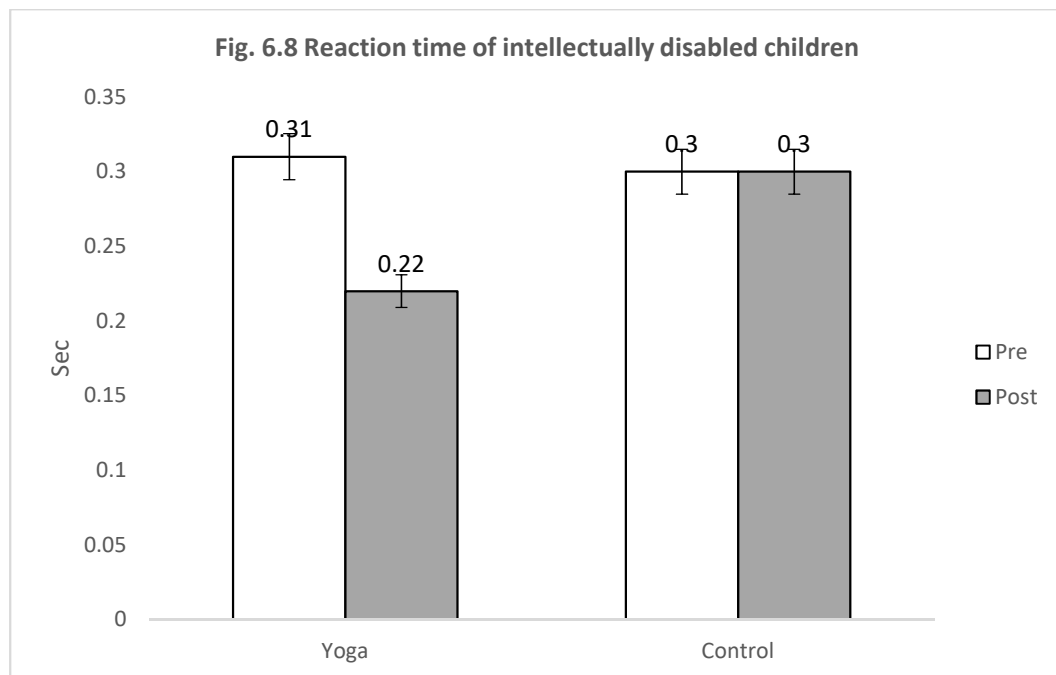
The results of reaction time among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.13 and Fig. 6.8, which indicate that

- The results of the paired sample t- test show that the mean reaction time differs before the yoga training ($M = 0.31$, $SD = 0.02$) and after the yoga training intervention ($M = 0.22$, $SD = 0.03$) at 0.001 level of significance ($t = 11.84$, $df = 31$, $n = 32$, $p < 0.001$, 95% CI for the mean difference of 0.07 to 0.10). On average, reaction time increased 0.09 secs after the yoga training intervention.
- Further, the results of the paired sample t- test in the control group show that the mean reaction time did not differ ($M = 0.30$, $SD = 0.03$) after the completion of the controlled period of three months ($M = 0.30$, $SD = 0.04$) even at 0.05 level of significance ($t = -0.547$, $df = 28$, $n = 29$, $p > 0.05$, 95% CI for the mean difference of -0.01 to 0.01). On average, the reaction time was not altered among the control group participants.

Table 6.13

Descriptive statistics and t-test results for reaction time

| Variable | Group | Pre M±SD | Post M±SD | Mean Difference | df | “t” value | Sig. |
|---------------|---------------------|-----------------|-----------------|--------------------|----|--------------|-------|
| Reaction Time | Yoga (n = 32) | 0.31 (±0.02) | 0.22 (±0.03) | 0.09 | 31 | 11.84 | 0.001 |
| | Control (n = 29) | 0.30 (±0.03) | 0.30 (±0.04) | 0.003 | 28 | 0.547 | 0.589 |



6.6 Results between group comparison in Health-Related Physical Fitness

6.6.1 Results between group comparison in Cardiovascular Efficiency

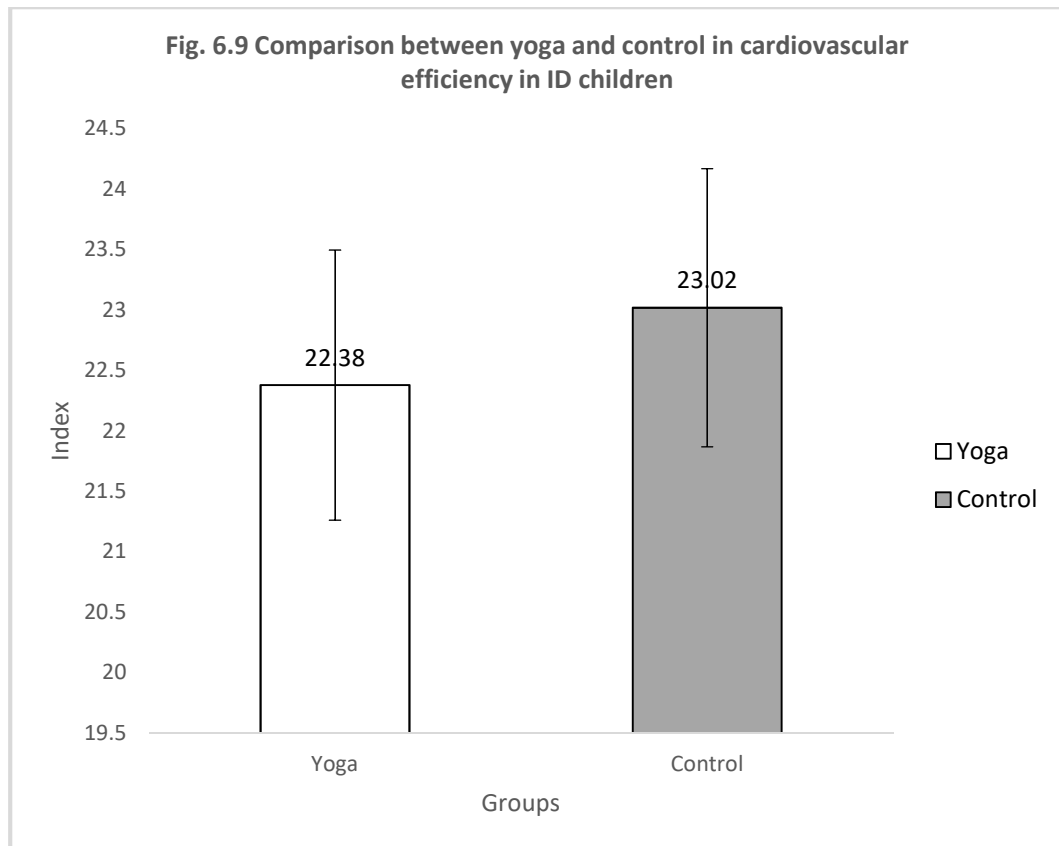
The results of the comparative difference in cardiovascular efficiency among children with intellectual disability who participated in the experimental and control groups are presented in Table 6.14 and Fig. 6.9 which indicate that

- Using an alpha level of .05, an independent-sample *t*-test was conducted to evaluate whether the yoga group and control group participants showed any difference significantly on a cardiovascular efficiency test. The test was not significant even at 0.05 level of significance, $t(57.67) = -0.707, p > 0.05$. 95% confidence interval for the cardiovascular efficiency test mean ranged from -2.45 to 1.17. An examination of the group means indicate that the yoga group participants ($M = 22.38, SD = 3.43$) performed better on the cardiovascular efficiency test than the control group participants ($M = 23.03, SD = 3.61$).

Table 6.14

Results of the independent sample t-test between yoga and control group in cardiovascular efficiency

| Cardiovascular efficiency | t-test for equality of means | | | | | | |
|-----------------------------|------------------------------|-------|----------------|-----------------|-----------------------|---|-------|
| | t | df | Sig.(2-tailed) | Mean Difference | Std. error difference | 95% Confidence interval of the difference | |
| | | | | | | Lower | Upper |
| Equal variances not assumed | 0.707 | 57.67 | 0.482 | 0.64 | 0.90 | -2.45 | 1.17 |



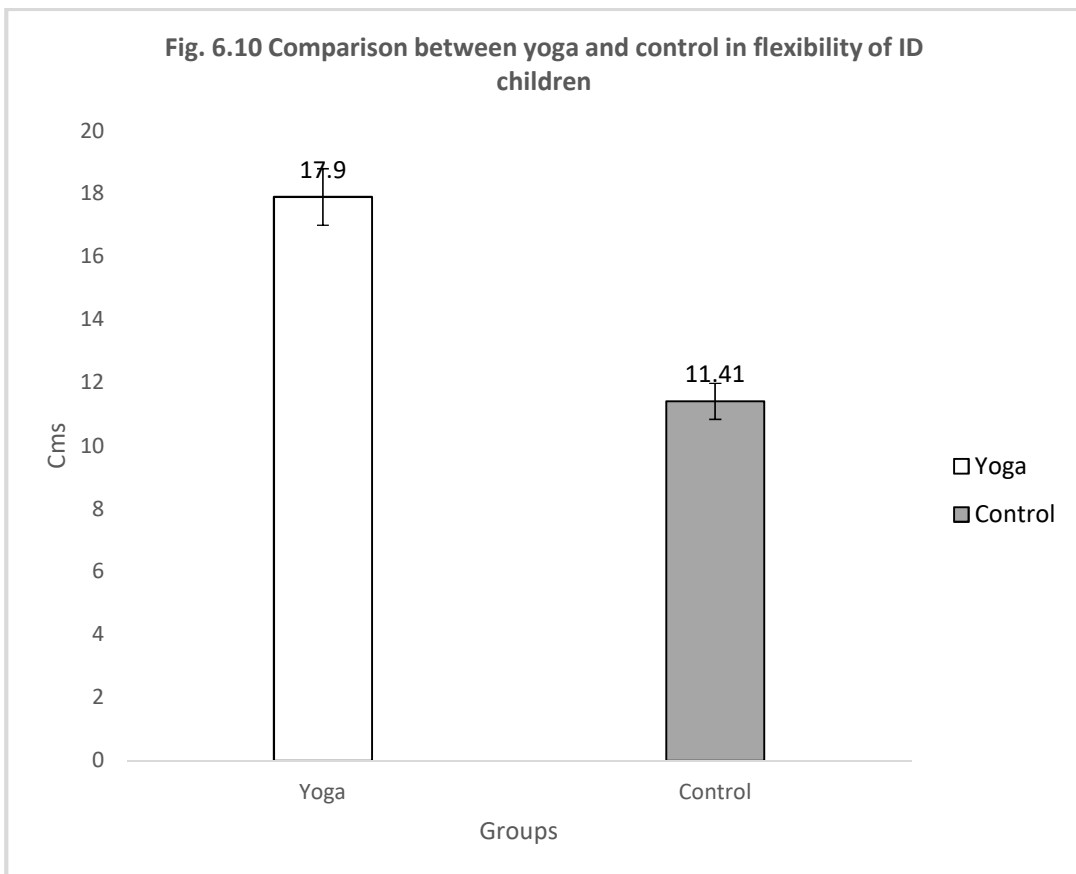
6.6.2 Results on Flexibility

The results of a comparative difference in the flexibility among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.15 and Fig. 6.10, which indicate that

- Using an alpha level of .05, an independent-samples *t*-test was conducted to evaluate whether the yoga group and control group participants differed significantly on the flexibility test. The test was significant, $t(40.32) = 4.99$, $p < 0.001$. 95% confidence interval for the flexibility test mean ranged from 3.86 to 9.11. An examination of the group means indicate that yoga group participants ($M = 17.90$, $SD = 6.84$) performed significantly higher on the flexibility test than the control group participants ($M = 11.41$, $SD = 2.57$).

Table 6.15
Results of the independent sample t-test between yoga
and control group in flexibility

| Flexibility | t-test for equality of means | | | | | | |
|-----------------------------|------------------------------|-------|----------------|-----------------|-----------------------|---|-------|
| | t | df | Sig.(2-tailed) | Mean Difference | Std. error difference | 95% Confidence interval of the difference | |
| | | | | | | Lower | Upper |
| Equal variances not assumed | 4.99 | 40.32 | 0.000 | 6.49 | 1.30 | 3.86 | 9.11 |



6.6.3 Results on Strength and Endurance of Abdominal Muscles

The results of the comparative difference in strength and endurance of abdominal muscles among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.16 and Fig. 6.11, which indicate that –

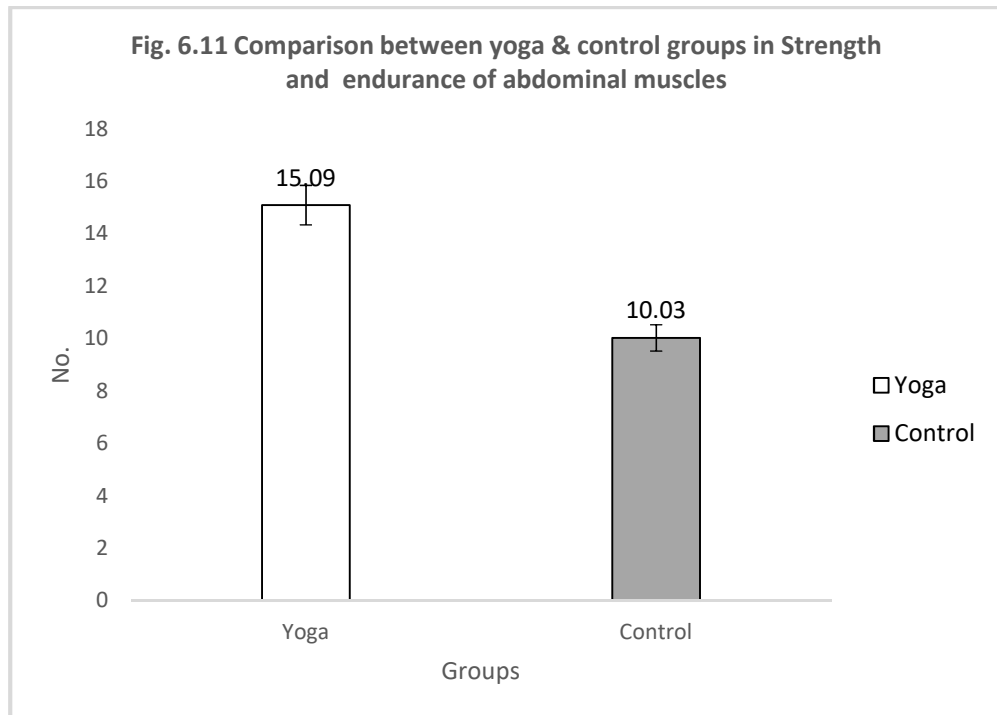
- Using an alpha level of .05, an independent-samples *t*-test was conducted to evaluate if the yoga group and control group participants differed significantly on strength the endurance of the abdominal muscles test. The test was significant,

$t(58.86) = 6.53, p < 0.001$. 95% confidence interval for strength and endurance of abdominal muscles test mean ranged from 3.50 to 6.60. An examination of the group means indicated that yoga group participants ($M = 15.09, SD = 3.10$) performed significantly higher on strength and endurance of abdominal muscles test than the control group participants ($M = 10.03, SD = 2.57$).

Table 6.16

Results of the independent sample t test between yoga and control groups in strength and endurance of abdominal muscles

| Strength & Endurance of Abdominal Muscles | t-test for equality of means | | | | | | |
|---|------------------------------|-------|----------------|-----------------|-----------------------|---|-------|
| | t | df | Sig.(2-tailed) | Mean Difference | Std. error difference | 95% Confidence interval of the difference | |
| | | | | | | Lower | Upper |
| Equal variances not assumed | 6.53 | 58.86 | 0.000 | 5.05 | 0.77 | 3.50 | 6.60 |



6.6.4 Results on Body Fat Percentage

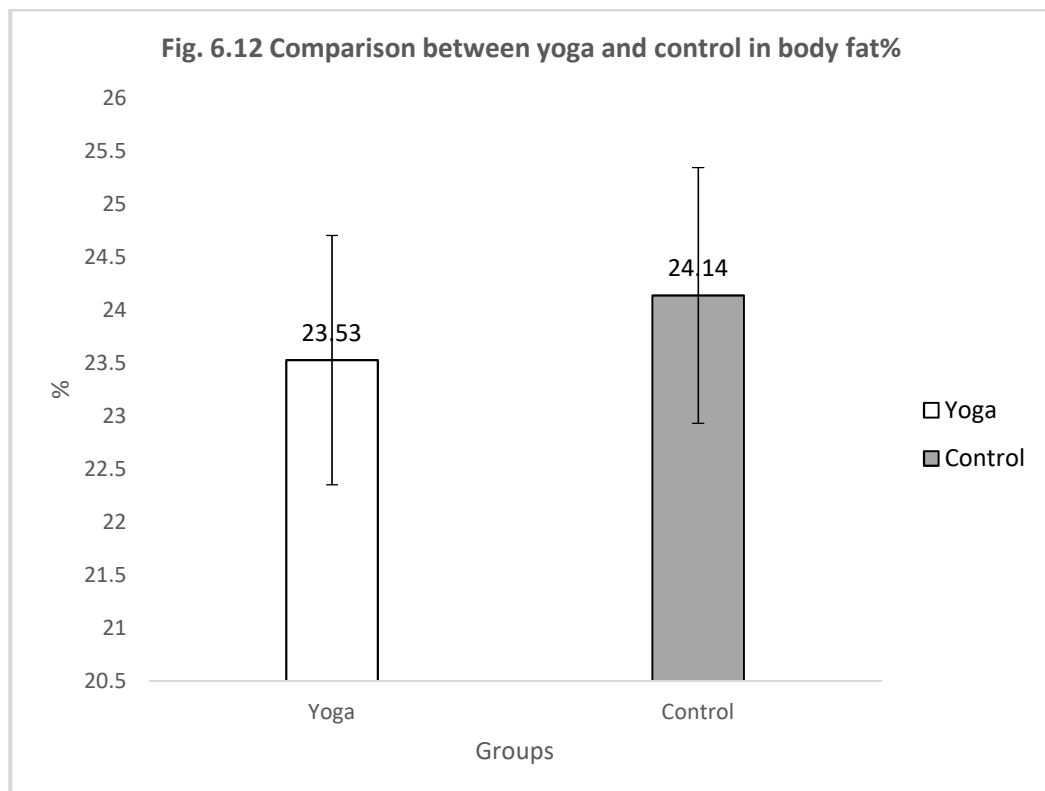
The results of the comparative difference in body fat percentage among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.17 and Fig. 6.12, which indicate that –

- Using an alpha level of .05, an independent-samples *t* test was conducted to evaluate if the yoga group and control group participants had any significant difference significantly on the body fat percentage test. The test was not, $t(57.49) = 0.53, p > 0.05$. 95% confidence interval for the body fat percentage test mean ranged from -2.94 to 1.71. An examination of the group means also indicated that the yoga group participants ($M = 23.53, SD = 4.38$) did not perform significantly better on the body fat percentage test than the control group participants ($M = 24.14, SD = 4.66$).

Table 6.17

Results of the independent sample t-test between yoga and control groups in body fat percentage

| Body Fat Percentage | t-test for equality of means | | | | | | |
|-----------------------------|------------------------------|-------|----------------|-----------------|-----------------------|---|-------|
| | t | df | Sig.(2-tailed) | Mean Difference | Std. error difference | 95% Confidence interval of the difference | |
| | | | | | | Lower | Upper |
| Equal variances not assumed | -0.53 | 57.49 | 0.597 | -0.617 | 1.16 | -2.94 | 1.71 |



6.7 Results between a group comparison in Psychomotor Abilities

6.7.1 Results on Static Balance

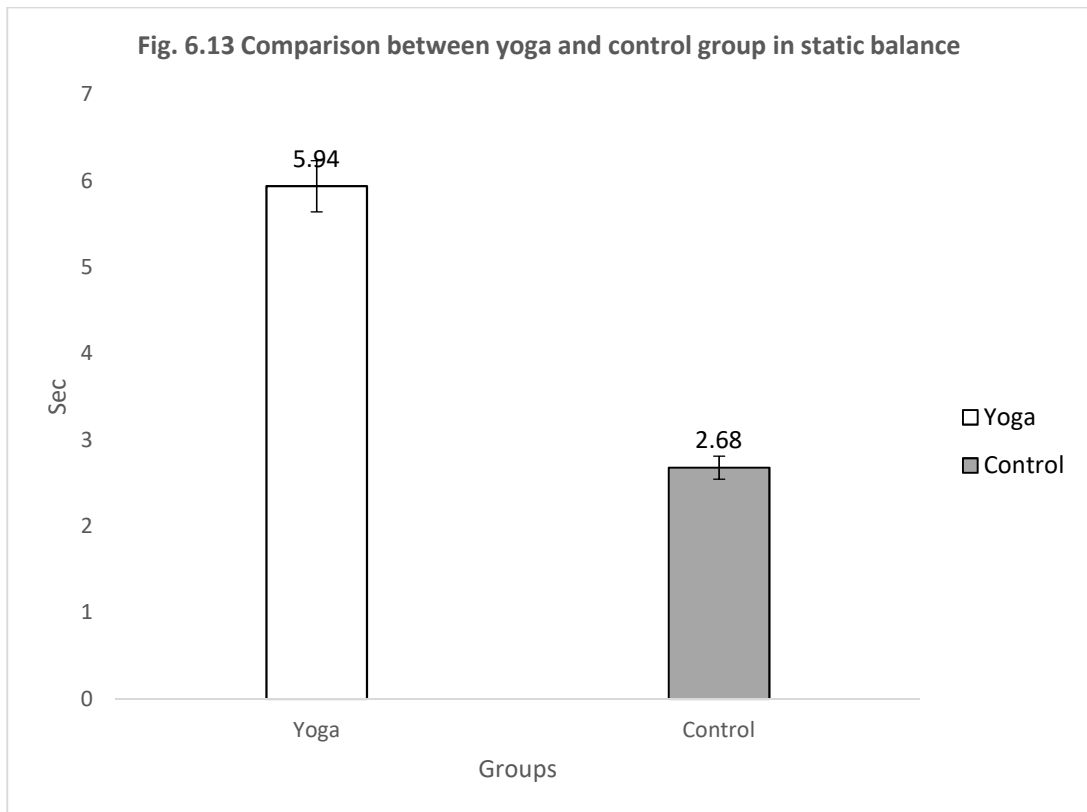
The results of the comparative difference in static balance among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.18 and Fig. 6.13, which indicate that

- Using an alpha level of .05, an independent-samples *t*-test was conducted to evaluate if the yoga group and control group participants had any significant difference on the static balance test. The test was significant, $t(48.56) = 4.56, p < 0.001$. 95% confidence interval for the static balance test mean ranged from 1.82 to 4.69. An examination of the group means indicated that the yoga group participants ($M = 5.94, SD = 3.51$) performed significantly higher on the static balance test than the control group participants ($M = 2.68, SD = 1.89$).

Table 6.18

Results of the independent sample t-test between yoga and control groups in static balance

| Static Balance | t-test for equality of means | | | | | | |
|-----------------------------|------------------------------|-------|----------------|-----------------|-----------------------|---|-------|
| | t | df | Sig.(2-tailed) | Mean Difference | Std. error difference | 95% Confidence interval of the difference | |
| | | | | | | Lower | Upper |
| Equal variances not assumed | 4.56 | 48.56 | 0.000 | 3.25 | 0.714 | 1.82 | 4.69 |



6.7.2 Results on Eye-Hand Co-ordination

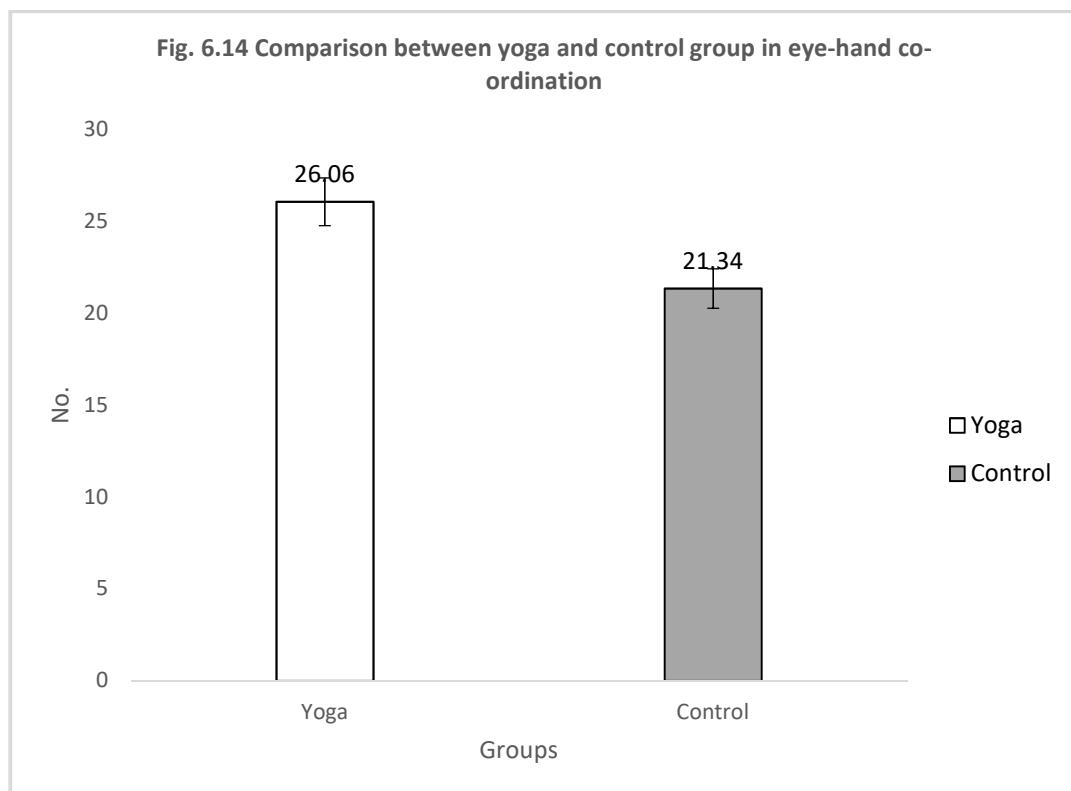
The results of the comparative difference in eye-hand co-ordination among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.19 and Fig. 6.14, which indicate that

- Using an alpha level of .05, an independent-samples *t*-test was conducted to evaluate if the yoga group and control group participants had any significant difference on the eye-hand co-ordination test. The test was not significant, $t(54.19) = 1.83, p > 0.05$. 95% confidence interval for the eye-hand co-ordination test mean ranged from -0.44 to 9.87. An examination of the group means indicated that the yoga group participants ($M = 26.06, SD = 8.93$) did not perform significantly on the eye-hand co-ordination test than the control group participants ($M = 21.34, SD = 10.94$).

Table 6.19

Results of the independent sample t-test between yoga and control groups in eye-hand co-ordination

| Eye hand coordination | t-test for equality of means | | | | | | |
|-----------------------------|------------------------------|-------|----------------|-----------------|-----------------------|---|-------|
| | t | df | Sig.(2-tailed) | Mean Difference | Std. error difference | 95% Confidence interval of the difference | |
| | | | | | | Lower | Upper |
| Equal variances not assumed | 1.83 | 54.19 | 0.072 | 4.71 | 2.57 | -0.44 | 9.87 |



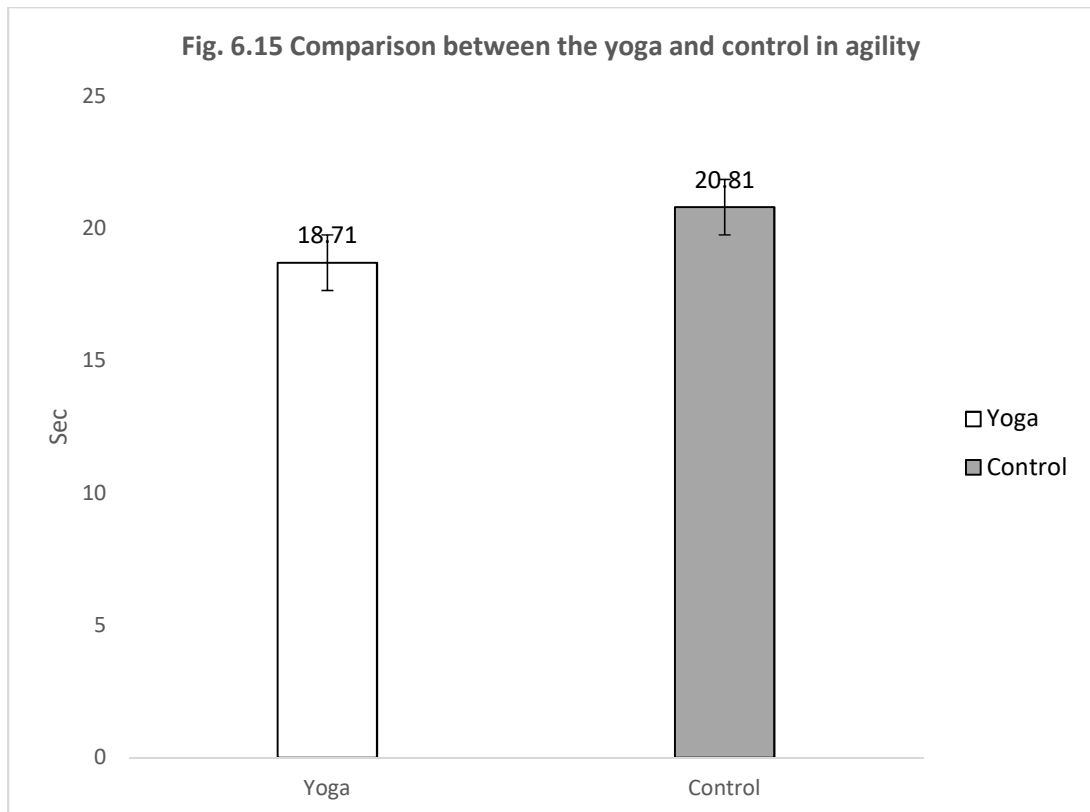
6.7.3 Results on Agility

The results of the comparative difference in agility among the children with intellectual disability who participated in the experimental and control groups are presented in Table 6.20 and Fig. 6.15, which indicate that

- Using an alpha level of .05, an independent-samples *t*-test was conducted to evaluate if the yoga group and control group participants showed any difference significantly on the agility test. The test was significant, $t(58.49) = 0.903$, $P > 0.05$. 95% confidence interval for the agility test mean ranged from -4.83 to 0.64. An examination of the group means indicated that the yoga group participants ($M = 18.71$, $SD = 5.35$) did not perform better on the agility test than the control group participants ($M = 20.81$, $SD = 5.32$).

Table 6.20
Results of the independent sample t-test between the yoga and control groups in agility

| Agility | t-test for equality of means | | | | | | |
|-----------------------------|------------------------------|-------|----------------|-----------------|-----------------------|---|-------|
| | t | df | Sig.(2-tailed) | Mean Difference | Std. error difference | 95% Confidence interval of the difference | |
| | | | | | | Lower | Upper |
| Equal variances not assumed | 0.903 | 58.49 | 0.131 | 2.09 | 1.38 | -4.83 | 0.64 |



6.7.4 Results on Reaction Time

The results of the comparative difference in reaction time among the children with intellectual disability who participated in the experimental and control group are presented in Table 6.21 and Fig. 6.16, which indicate that –

- Using an alpha level of .05, an independent-samples *t*-test was conducted to evaluate if the yoga group and control group participants had any significant difference on the reaction time test. The test was significant, $t(57.92) = 8.14$, $p < 0.001$. 95% confidence intervals for the reaction time test mean ranged from -0.10 to -0.06. An examination of the group means indicated that the yoga group participants ($M = 0.22$, $SD = 0.03$) performed significantly better on the reaction time test than the control group participants ($M = 0.30$, $SD = 0.04$).

Table 6.21
Results of the independent sample t test between the yoga
and control groups in reaction time

| Reaction Time | t-test for equality of means | | | | | | |
|-----------------------------|------------------------------|-------|----------------|-----------------|-----------------------|---|-------|
| | t | df | Sig.(2-tailed) | Mean Difference | Std. error difference | 95% Confidence interval of the difference | |
| | | | | | | Lower | Upper |
| Equal variances not assumed | -8.14 | 57.92 | 0.000 | -0.08 | 0.01 | -0.10 | -0.06 |

