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Effect of Simplified Kundalini Yoga with and without Tortoise Exercise n Selected Psychological Variables Among Hypothyroid Women

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Abstract: We were inspired to conduct the study since no prior research has quantified the synergistic impact of Simplified Kundalini Yoga (SKY) and Tortoise exercise on psychological distress in Hypothyroid women. This study aimed to examine the synergistic impact of Simplified Kundalini Yoga and Tortoise exercise on the symptoms of stress, anxiety, and depression in women with Hypothyroidism. A total of sixty women, all from Chennai, India were chosen at random and split into three groups of twenty each. Groups I and II were the test subjects, while Group III served as the control. The first group practised Simplified Kundalini Yoga, whereas the second did the same but with the addition of the Tortoise practise. Both Group I and Group II undertook the Yoga training course, which lasted for 16 weeks. Active rest was maintained for Group III. Before and after the training, participants filled out the DASS-21 questionnaire to gauge their levels of depression, anxiety, and stress. ANCOVA and Scheffe's Post hoc test were used to examine the data. The post-test mean ratings of sadness, anxiety, and stress were considerably lower among the experimental groups than they had been before, although there was no significant change in the control group. Reduced sadness, anxiety, and tension were seen when simple Kundalini Yoga and tortoise exercise were implemented. Therefore, Simplified Kundalini Yoga and Tortoise exercise may be utilised as a complementary treatment for Hypothyroid ladies to help them deal with their mood and stress issues.

Keywords: Hypothyroid, Simplified Kundalini Yoga, Tortoise exercise, Complementary therapy, Depression, Anxiety, Stress

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Introduction

Women are society's gift to humanity as a whole (Maharishi, 2018). Women not only show their worth by caring for their families, but also by excelling in a wide variety of professions. Their

quality of life suffers as a result (Antoni and Dhabhar, 2019), and they are more likely to experience stress at work and at home (Katiyal, 2019). Cortisol levels rise and fall in response to

stress, and these changes in turn promote insulin resistance and thyroid problems. Hormonal abnormalities affect women more often than males. Puberty, pregnancy, and menopause are all transitional periods that are largely influenced by hormonal changes. The drugs people use to treat one illness may cause a new illness by disrupting the body's natural hormone production (Roop, 2018).

Thyroid problems constitute a significant subset of the more frequent endocrine illnesses that affect the Indian population (Nagarkar *et al.*, 2015). Thyroid diseases affect 10% of the global population, 6% of women, 3% of men, and 1% of children, according to the World Health Organisation (Mohammed *et al.*, 2021).

It is estimated that 42 million Indians are dealing with thyroid issues. Thyroid abnormalities are more common in older individuals (>30 years) than younger patients and are more common in women than in men (Nagarkar *et al.*, 2015). Lifestyle, environmental pollution, and the use of toxic pesticides and fertilisers are major contributors to the decline in iodine metabolism. Hormonal disruption is caused by the overuse of chemical fertilisers and pesticides (Roop, 2018). Toxins in the environment have been linked to thyroid dysfunction (Roop, 2018). Due to a lack of education about proper diet and treatment options, thyroid diseases are prevalent in India (Nagarkar *et al.*, 2015).

Yoga and Thyroid disorders:

Yoga is a complementary medicine approach that provides a long-term benefit for thyroid patients who practice it regularly as the yogic practices are capable of making changes in hormone secretions (Maske and Barnwal, 2016). Yoga has its own way in treating thyroid disorders. The various stretching postures, body twists and turns and massage soothe the thyroid gland to regulate its function thereby improve the body's metabolism. This study looks upon the impact of

Simplified Kundalini Yoga practices and Tortoise exercise on hypothyroidism.

Hypothyroidism and its prevalence:

Hypothyroidism is reduced activity of Thyroid gland. It is the most common thyroid disorder with the prevalence in India being 11% when compared with 4.6% in the U.S.A and 2% in the UK (Bagchi, 2014). A statistical analysis has revealed the fact that one in every ten adults has hypothyroidism based on the data collected from thirty-three lakh Indians from 2014-2016 (Nair *et al.*, 2018). Hypothyroidism causes slow metabolism, weight gain, low energy, constipation, hair loss, cold intolerance and depression.

Simplified Kundalini Yoga and Hypothyroidism:

The hand exercises, neuro – muscular breathing exercise (1 and 2 postures), Makarasana part – A and part – B, Acupressure first point and relaxation of simplified physical exercise may facilitate increased blood supply to the neck and upper torso. The blood circulation gets regulated and hence improves thyroid gland function. The meditation on Vishudhi chakra regulates the function of thyroid gland.

Tortoise Exercise and Hypothyroidism:

Extension and retraction of neck improve blood circulation and strengthen the muscles in the neck region. The practices activate the central nervous system and energise the whole body. The gland gets squeezed while doing Jalandhara Bandha (Langade *et al.*, 2021). Vishudhi chakra is located at the neck region. The tortoise exercise purifies and energises the Vishudhi Chakra. These features may regulate the thyroid and parathyroid functions and hence the body metabolism can be improved.

The purpose of the research was to assess the effect of simplified kundalini yoga with and without tortoise exercise on selected psychological variables among hypothyroid women.

The objectives of this study was –(i) to study the consequence of Simplified kundalini yoga with and without tortoise exercise on depression among hypothyroid women; (ii) to assess the influence of Simplified kundalini yoga with and without tortoise exercise on anxiety among hypothyroid women; and (iii) to investigate the impact of Simplified kundalini yoga with and without tortoise exercise on stress among hypothyroid women.

The hypotheses of this study was as follow:

- (i) H₁: It was hypothesized that there would be significant differences on selected psychological variables among hypothyroid women due to simplified kundalini yoga practice than the control group.
- (ii) H₂: It was hypothesized that there would be significant differences on selected psychological variables among hypothyroid women due to simplified kundalini yoga practice along with tortoise exercise than the control group.
- (iii) H₃: It was hypothesized that there would be more significant differences on selected psychological variables of the experimental group–II who practiced simplified kundalini yoga along with tortoise exercise when compared to the experimental group – I who practiced Simplified kundalini yoga alone.

Materials and Methods

The study was set up as a pre- and post-test, random-group design. Sixty hypothyroid women, ages 35-50, were chosen at random and divided into three groups of 20 each. Levothyroxin dosages of 50–100 mcg were being administered daily to the participants. Groups I and II were the test subjects, while Group III served as the control. The first group practised Simplified Kundalini Yoga, whereas the second did the same but with the addition of the Tortoise practise. Both Group I and Group II undertook the Yoga training course, which lasted for 16 weeks. Active rest was maintained for Group III. Before and

after training, participants' levels of depression, anxiety, and stress were assessed using the DASS-21 questionnaire. All participants were given post-training assessments after the course was complete. Analysis of Covariance (ANCOVA) and Scheff's post hoc test were used to determine significant differences in outcomes across groups using the gathered data.

Training Programme:

The subjects of the experimental group – Group I underwent the training programme as per the schedule mentioned in Tables 1-7.

Results and Discussion

Table 8 shows that the pre-test means scores of Depression of Experimental Group I (Simplified Kundalini Yoga without Tortoise Exercise) was 23.00, Experimental Group II (Simplified Kundalini Yoga with Tortoise Exercise) was 23.30 and Control Group was 22.00. The post-test means show differences due to the practice of Simplified Kundalini Yoga with and without Tortoise Exercise. Mean values recorded were 9.60, 5.20 and 24.10, respectively.

The obtained value on pre-test scores 0.37 was lesser than the required F value of 3.16 to be significant at 0.05 level. This proved that there was no significant difference between the groups at initial stage and the randomization at the initial state was equal. The post-test scores analysis proved that there was a significant difference between the groups as the obtained F value of 129.68 was greater than the required F value of 3.16 at 0.05 level. This proved that the differences between post-test mean of the subjects were significant.

Having the pre- and the post-test scores among the groups, adjusted mean scores were calculated and subjected to statistical treatment. The obtained F value of 214.48 was greater than the required F value of 3.16 at 0.05 level. This proved that there was a significant difference among the means due to the practice of Simplified Kundalini Yoga with and without Tortoise

Table 1: First week – First three days – Practice session – 60 min

S. No.	Practices	No. of times	Duration in Minutes
1	Prayer	1	2
2	Hand Exercise	5	5
3	Leg Exercise	5	15
4	Neuro-Muscular Breathing Exercise	5	10
5	Kayakalpa	2	6
6	Agna Meditation	1	20
7	Closing Prayer	1	3

Table 2: First week – Fourth day – Practice session – 60 min

S. No.	Practices	No. of times	Duration in Minutes
1	Prayer	1	2
2	Hand Exercise	5	4
3	Leg Exercise	5	10
4	Neuro-Muscular Breathing Exercise	5	7
5	Eye Exercise	5	4
6	Kapalpathi	3 cycles	6
7	Kayakalpa	2	6
8	Shanthi Meditation	1	20
9	Closing Prayer	1	1

Table 3: First week – Fifth day – Practice session – 60 min

S. No.	Practices	No. of times	Duration in Minutes
1	Prayer	1	2
2	Hand Exercise	5	3
3	Leg Exercise	5	6
4	Neuro-Muscular Breathing Exercise	5	6
5	Eye Exercise	5	3
6	Kapalpathi	3 cycles	4
7	Makarasana	3	9
8	Kayakalpa	2	6
9	Shanthi Meditation	1	20
10	Closing Prayer	1	1

Table 4: First week – Sixth and Seventh day – Practice session – 70 min

S. No.	Practices	No. of times	Duration in Minutes
1	Prayer	1	1
2	Hand Exercise	5	3
3	Leg Exercise	5	5
4	Neuro-Muscular Breathing Exercise	5	5
5	Eye Exercise	5	3
6	Kapalpathi	3 cycles	4
7	Makarasana	3	8
8	Massage	1	2
9	Acupressure	1	7
10	Relaxation	1	5
11	Kayakalpa	2	6
12	Shanthi Meditation	1	20
13	Closing Prayer	1	1

Table 5: Second week –Practice session –70 min

S. No.	Practices	No. of times	Duration in Minutes
1	Prayer	1	1
2	Hand Exercise	5	3
3	Leg Exercise	5	5
4	Neuro-Muscular Breathing Exercise	5	5
5	Eye Exercise	5	3
6	Kapalpathi	3 cycles	4
7	Makarasana	3	8
8	Massage	1	2
9	Acupressure	1	7
10	Relaxation	1	5
11	Kayakalpa	2	6
12	Thuriya/Shanthi Meditation	1	20
13	Closing Prayer	1	1

Table 6: Third and Fourth week – Practice session – 80 min

S. No.	Practices	No. of times	Duration in Minutes
1	Prayer	1	1
2	Hand Exercise	5	3
3	Leg Exercise	5	5
4	Neuro-Muscular Breathing Exercise	5	5
5	Eye Exercise	5	3
6	Kapalpathi	3 cycles	4
7	Makarasana	3	8
8	Massage	1	2
9	Acupressure	1	7
10	Relaxation	1	5
11	Kayakalpa	2	6
12	Turiya/Panchendriya/Panchadhoodha Navagraha/Shanthi Meditation	1	20
13	Introspection	1	10
14	Closing Prayer	1	1

Exercise on the Selected Psychological variable – depression.

Since significant improvement were recorded the results were subjected to Post-hoc analysis using Scheffe's confidence interval test. The results are presented in the Table 8.

Table 9 shows that there was a significant difference between Experimental group I and Experimental group II since the mean difference value was higher than the C.I. There was a significant difference between experimental group I and Control group, since the mean difference is greater than the required C.I. and there was a significant difference between the experimental group II and control group since the

mean difference value was greater than the required C.I. The obtained adjusted mean values are presented in Figure 1.

Adjusted mean scores for depression ranged from 9.49 in the Simplified Kundalini Yoga without Tortoise Exercise group to 4.95 in the Simplified Kundalini Yoga with Tortoise Exercise group and 24.46 in the control group (Table 8). Using ANCOVA, we analysed the variance between participants' pre- and post-test scores and adjusted mean scores and found F values of 0.37, 129.68, and 214.48, respectively. The acquired F value for the pre-test scores was less than the needed table value, thus the value was not statistically significant at the 0.05 level of confidence. However, the obtained F value for the

Table 7: Fifth to Sixteenth week – Practice session – 80 min

S. No	Practices	No. of times	Duration in Minutes
1	Prayer	1	1
2	Hand Exercise	5	3
3	Leg Exercise	5	5
4	Neuro-Muscular Breathing Exercise	5	5
5	Eye Exercise	5	3
6	Kapalpathi	3 cycles	4
7	Makarasana	3	8
8	Massage	1	2
9	Acupressure	1	7
10	Relaxation	1	5
11	Kayakalpa	2	6
12	Turiya/Panchendriya/Panchadhoodha Navagraha/Turiyadheedha/Nine Centre/Nithyanandha/Shanthi Meditation	1	20
13	Introspection	1	10
14	Closing Prayer	1	1

post-test scores which was larger than the required table value F of 3.16, so the value was statistically significant.

Simplified Kundalini Yoga, with and without Tortoise Exercise, significantly reduced (improved) the Selected Psychological Variable of depression compared to the control group in a post hoc analysis using Scheffe's confidence test. There was a statistically significant difference between the groups. Comparing Group I (Simplified Kundalini Yoga without Tortoise Exercise) to Group II (Simplified Kundalini Yoga with Tortoise Exercise), a post hoc analysis

revealed that Group II (Simplified Kundalini Yoga with Tortoise Exercise) significantly outperformed Group I (Simplified Kundalini Yoga without Tortoise Exercise). There was a statistically significant difference between the groups. Similar observations were also reported by Bridges and Sharma (2017); Vijayalakshmi and Devarajan (2018); Shohani *et al.* (2018); Mishra *et al.* (2019); Saradha (2019); Rani *et al.* (2021) and Gupta *et al.* (2022).

Yoga reduces depression by balancing the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic nervous system (SNS) (Pascoe,

Table 8: Computation Of Analysis Of Covariance On Depression (Scores)

Test	Exp. Group I	Exp. Group II	Control group	Source of variance	Degrees of Freedom	Sum of Squares	Mean sum of squares	F Ratio
Pre-test	23.00	23.30	22.00	Between	2.00	18.53	9.27	0.37
				Within	57.00	1422.20	24.95	
Post-test	9.60	5.20	24.10	Between	2.00	3912.13	1956.07	129.68*
				Within	57.00	859.80	15.08	
Adj. mean	9.49	4.95	24.46	Between	2.00	4118.93	2059.47	214.48*
				Within	56.00	537.72	9.60	
Mean Diff.	-13.40	-18.10	2.10					

*Significant at 0.05 level table value of F 0.05 for 2 and 57, and 2 and 56 was 3.16 and 3.16 respectively.

Table 9: Scheffe's Post Hoc Test Score On Depression

Test			Mean Difference	Required C.I.
Experimental Group I	Experimental Group II	Control group		
9.49		24.46	14.98*	2.44
	4.95	24.46	19.52*	
9.49	4.95		4.54*	

*Significant at 0.05 level of confidence

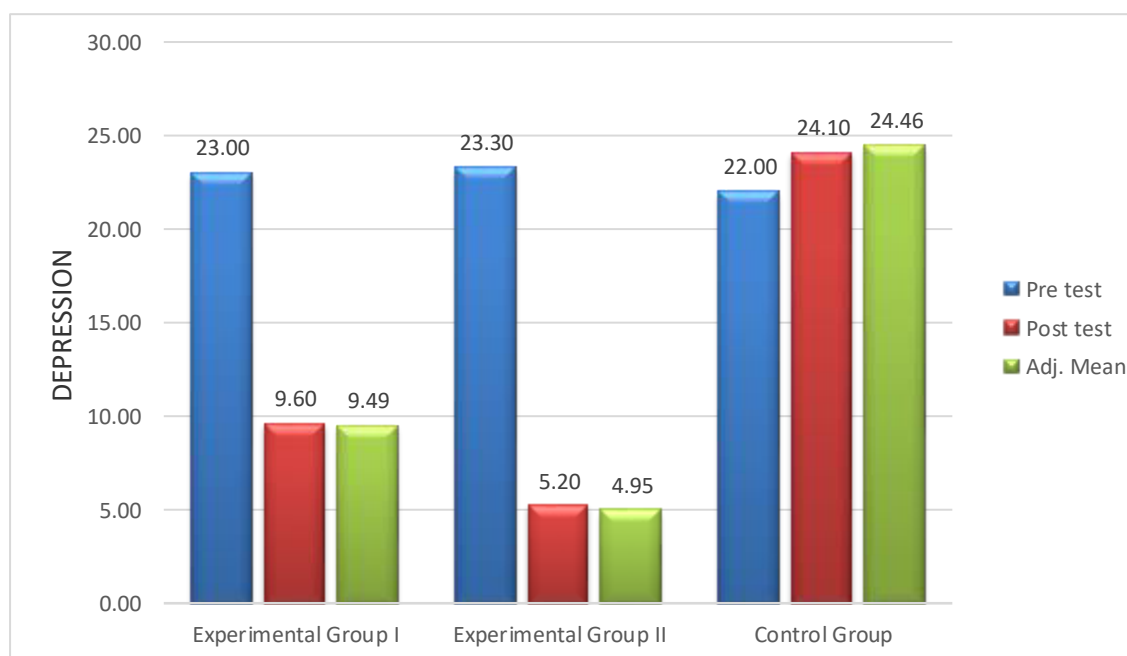


Fig. 1: Pre, Post and Ordered adjusted means of depression.

2015).

Adjusted mean values for Anxiety were 9.27 in the Simplified Kundalini Yoga without Tortoise Exercise group, 4.38 in the Simplified Kundalini Yoga with Tortoise Exercise group, and 23.06 in the control group (Table 10). F values of 1.08, 111.39, and 209.52 were obtained after applying ANCOVA to the differences in pre- and post-test scores as well as the adjusted mean scores of the participants, respectively. The acquired F value for the pre-test scores was less than the needed table value, thus the value was not statistically significant at the 0.05 level of confidence. However, the obtained F value for the post-test scores was larger than the required table value F of 3.16, so the value was statistically significant.

Simplified Kundalini Yoga with and without Tortoise Exercise significantly improved (decreased) the Selected Psychological Variable - anxiety compared to the control group, and the differences were statistically significant at the 0.05 level, as determined by a post hoc analysis using Scheffe's confidence test. Comparing Group I (Simplified Kundalini Yoga without Tortoise Exercise) to Group II (Simplified Kundalini Yoga with Tortoise Exercise), a post hoc analysis revealed that Group II (Simplified Kundalini Yoga with Tortoise Exercise) significantly outperformed Group I (Simplified Kundalini Yoga without Tortoise Exercise). There was a statistically significant difference between the groups. There is congruence between results of present study and those found by Pascoe (2015), Curtis Kathryn *et al.* (2016), Vijayalakshmi and Devarajan (2018), Shohani *et al.* (2018), Mishra *et al.* (2019), Saradha (2019) and Rani *et al.* (2021).

In addition to calming the SNS, yoga also stimulates the PNS, or parasympathetic nervous system. As a result, it's possible that the anxiousness subsided (Pascoe, 2015).

A standard questionnaire was used to gauge the psychological variable stress. Table 12 shows the findings from a study of the effects of simplified Kundalini yoga on selected

psychological variables in women with hypothyroidism.

Pre-test mean Stress scores for Group I (Simplified Kundalini Yoga without Tortoise Exercise) and Group II (Simplified Kundalini Yoga with Tortoise Exercise) are both 25.00 (Table 12), but for Group III (Control Group) these are 23.30. Simplified Kundalini Yoga with and without Tortoise Exercise led to different post-test means. There were averages of 10.70, 7.30, and 25.40, respectively.

Pre-test scores were not significant at the 0.05 level since the obtained value of 0.88 was less than the needed F value of 3.16. This demonstrated that initial randomization was fair and that there were no substantial disparities between the groups. Since the resulting F value of 159.56 for the post-test scores was larger than the needed F value of 3.16 at the 0.05 level, it was determined that there was a statistically significant difference between the groups. This demonstrated that there were statistically significant variations in the participants' post-test means.

The groups' pre- and post-test results were used to derive adjusted mean scores, which were then statistically analysed. $F(3,16) = 322.84$, which is more than the minimum acceptable value of 3.16 at the 0.05 significance level. This demonstrated that the means owing to the practise of Simplified Kundalini Yoga with and without the Tortoise Exercise produced statistically significant differences on the selected psychological variable - stress.

Since statistically significant advancements were seen, a Post hoc analysis using Scheffe's confidence interval test was conducted on the findings. Table 13 displays the final results. The mean difference value between Experiment I and Experiment II in Table 13 is more than the confidence interval, indicating a statistically significant difference. Since the mean difference is larger than the critical interval (C.I.), it may be

Table 10: Computation of Analysis of Covariance on Anxiety (Scores)

Test	Exp. Group I	Exp. Group II	Control group	Source of variance	Degrees of Freedom	Sum of Squares	Mean sum of squares	F Ratio
Pre-test	20.50	21.90	19.50	Between	2.00	58.13	29.07	1.08
				Within	57.00	1529.80	26.84	
Post-test	9.20	5.00	22.50	Between	2.00	3338.53	1669.27	111.39*
				Within	57.00	854.20	14.99	
Adj. mean	9.27	4.38	23.06	Between	2.00	3633.06	1816.53	209.52*
				Within	56.00	485.52	8.67	
Mean Diff.	-11.30	-16.90	3.00					

*Significant at 0.05 level table value of F 0.05 for 2 and 57, and 2 and 56 was 3.16 and 3.16 respectively

Table 11: Scheffe's Post Hoc Test Score on Anxiety

Test			Mean Difference	Required C.I.
Experimental Group I	Experimental Group II	Control group		
9.27		23.06	13.79*	2.32
	4.38	23.06	18.68*	
9.27	4.38		4.89*	

*Significant at 0.05 level of confidence

Table 12: Computation Of Analysis Of Covariance on Stress (Scores)

Test	Exp. Group I	Exp. Group II	Control group	Source of variance	Degrees of Freedom	Sum of Squares	Mean sum of squares	F Ratio
Pre-test	25.00	25.00	23.30	Between	2.00	38.53	19.27	0.88
				Within	57.00	1242.20	21.79	
Post-test	10.70	7.30	25.40	Between	2.00	3701.73	1850.87	159.56*
				Within	57.00	661.20	11.60	
Adj. mean	10.41	7.01	25.97	Between	2.00	3967.70	1983.85	322.84*
				Within	56.00	344.12	6.14	
Mean Diff.	-14.30	-17.70	2.10					

*Significant at 0.05 level table value of F 0.05 for 2 and 57, and 2 and 56 was 3.16 and 3.16 respectively

Table 13: Scheffe's Post Hoc Test Score on Stress

Test			Mean Difference	Required C.I.
Experimental Group I	Experimental Group II	Control group		
10.41		25.97	15.56*	1.96
	7.01	25.97	18.96*	
10.41	7.01		3.40*	

*Significant at 0.05 level of confidence

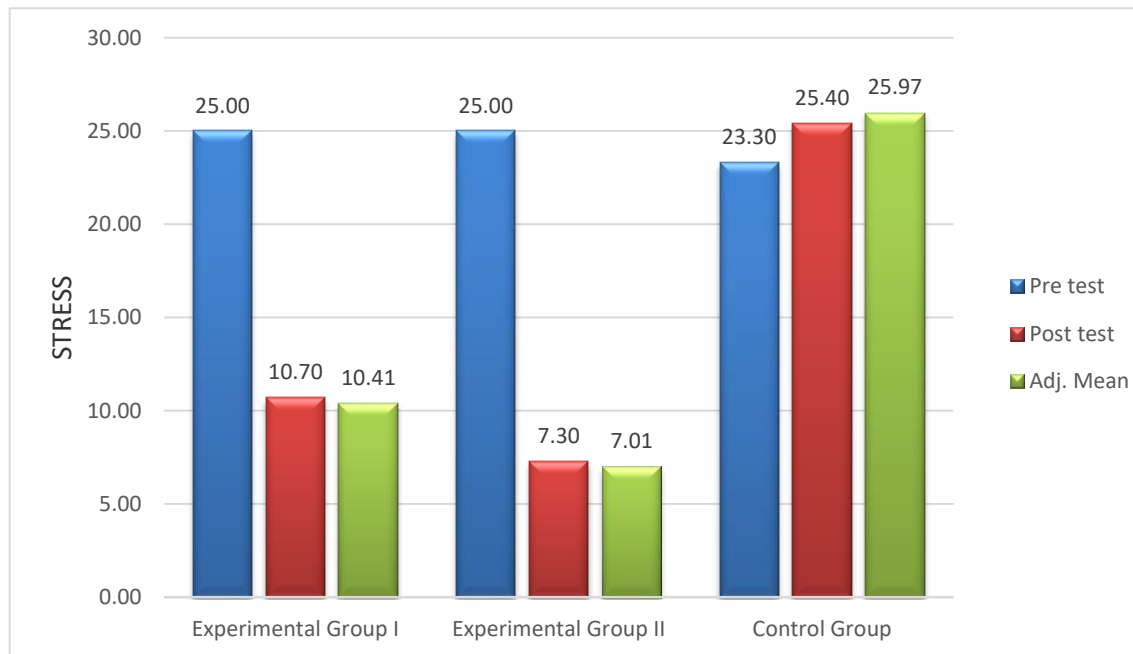


Fig. 2: Pre, Post and Ordered adjusted means of stress.

Table 14: Results and Conclusion on Hypothesis H₁

Variables	Simplified Kundalini Yoga Practices	Hypothesis H ₁	Null Hypothesis
Depression	Reduced	Accepted	Rejected
Anxiety	Reduced	Accepted	Rejected
Stress	Reduced	Accepted	Rejected

concluded that there was a statistically significant difference between Group I and the Control Group, and between Group II and the Control Group. Figure 2 displays the calculated corrected mean values.

Table 12 shows that after adjusting for among those who participated in Simplified Kundalini Yoga without Tortoise Exercise was 10.41,

whereas those who participated in Simplified Kundalini Yoga with Tortoise Exercise had a mean value of 7.01 and those in the control group had a mean value of 25.97. Using ANCOVA, we analysed the variance between participants' pre- and post-test scores and adjusted mean scores and found F values of 0.88, 159.56, and 322.84, respectively. The acquired F value for the pre-test

Table 15: Results and Conclusion on Hypothesis H₂

Variables	Simplified Kundalini Yoga Practices with Tortoise exercise	Hypothesis H ₁	Null Hypothesis
Depression	Reduced	Accepted	Rejected
Anxiety	Reduced	Accepted	Rejected
Stress	Reduced	Accepted	Rejected

Table 16: Results and conclusion on hypothesis H₃

Variables	Simplified Kundalini Practices	Simplified Kunndalini Yoga with Tortoise exercise	Hypothesis H ₃	Null hypothesis
Depression	Reduced	Reduced	Accepted	Rejected
Anxiety	Reduced	Reduced	Accepted	Rejected
Stress	Reduced	Reduced	Accepted	Rejected

scores was less than the needed table value, thus the value was not statistically significant at the 0.05 level of confidence. However, the obtained F value for the post-test scores was larger than the required table value F of 3.16, so the value was statistically significant.

Simplified Kundalini Yoga with and without Tortoise Exercise significantly improved (decreased) the Selected Psychological Variable - STRESS compared to the control group, as shown by post hoc analysis using Scheffe's confidence test. There was a statistically significant difference between the groups. Comparing Group I (Simplified Kundalini Yoga without Tortoise Exercise) to Group II (Simplified Kundalini Yoga with Tortoise Exercise), a post hoc analysis revealed that Group II (Simplified Kundalini Yoga with Tortoise Exercise) significantly outperformed Group I (Simplified Kundalini Yoga without Tortoise Exercise). There was a statistically significant difference between the groups.

Similarities may be seen between results of the present study and those found by Shohani *et al.* (2018), Sukumar and Ponnuswamy (2018), Mishra *et al.* (2019), Saradha (2019), Priya and Sundaramoorthi (2021), Hemamalini and Sundaramoorthi (2020) and Rani *et al.* (2021).

Most bodily systems are impacted by prolonged stress. Vagal tone is induced and chronic stress problems are reduced because of

yoga's effect on the neurological system (Venkatesh *et al.*, 2020).

Simplified kundalini yoga instruction may provide distinguishable variations on chosen psychological characteristics from the control group, as postulated by hypothesis H1.

There were statistically significant differences between the experimental group and the control group on the specified variables of depression, anxiety, and stress. Since the findings are consistent with H1, we may conclude that H1 is the correct research hypothesis. Simplified kundalini yoga and Tortoise exercise (H2) predict that compared to the control group, there would be statistically significant changes on chosen psychological variables.

The data in the tables showed that the chosen variables (depression, anxiety, and stress) differed significantly from the control group. Since the data is consistent with the alternative explanation, we reject the null hypothesis in favour of H2 (Table 15).

Simplified kundalini yoga practises in conjunction with Tortoise exercise, as opposed to Simplified kundalini yoga practises alone, may produce more substantial changes on chosen psychological factors, as stated by hypothesis H3.

Simple kundalini yoga combined with the tortoise exercise yielded more substantial

changes on the specified criteria variables than did simple kundalini yoga alone. Therefore, we adopt H3 (Table 16) as a study hypothesis.

Conclusion

The following conclusions were derived: (i) The result of the study showed that the Psychological variables depression, anxiety and stress were decreased significantly due to sixteen weeks practice of Simplified Kundalini Yoga than the Control group; (ii) the result of the study showed that the Psychological variables depression, anxiety and stress were decreased significantly due to sixteen weeks practice of Simplified Kundalini Yoga along with Tortoise exercise than the Control group; (iii) it was concluded that sixteen weeks practice of Simplified Kundalini Yoga along with Tortoise exercise was significantly effective than Simplified Kundalini Yoga Practice alone on selected psychological variables among Hypothyroid women.

Based on the present study it can be recommended that – (i) Simplified Kundalini Yoga and Tortoise exercise can be used as an adjunct therapy along with conventional medicine; and (ii) the present study is primarily based on women with hypothyroidism. The same study may be carried out for other genders with hypothyroidism also.

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