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Effects of Yoga Nidra to Enhance Self-Confidence and Reduce Anxiety Among Female Athletes

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ABSTRACT

There can be seen a variety of obstacles such as overtraining, competing and training times, stress, academic responsibilities and travel are some of the challenges that are influencing athletes' performance. The study investigates the effect of Yoga Nidra in enhancing self-confidence and reducing anxiety among female athletes. For the study, a pre- and post-test randomized design had been applied. According to the inclusion criteria, 82 female athletes (age 18-23 years) have been selected. In the experimental group, participants had participated in a Yoga Nidra program for 12 weeks where they had to attend 3 session every week. The Yoga Nidra sessions emphasized baring the mind, being aware of oneself, and using positive mental images to bolster self-belief and combat anxiety. On the other hand, no intervention had been offered to the control group participants though, it had been suggested they continue with their normal training regimes. As a result, Yoga Nidra can reduce anxiety in the experimental group significantly and meaningfully opposed to the control group. Yoga Nidra importance is suggested by many anxiety levels explained in the model for the anxiety management techniques.

Keywords: Yoga Nidra, Female, Athletes, Anxiety, self-confidence.

1. INTRODUCTION

In living environment, life stress has been in association with the strains which experienced by every human. Sportsperson are generally appeared as vulnerable for their life stress across all ages (Dol, 2019). In general, life stress of athletes or any sportsperson emerged from the interpersonal relationships with their well-wishers and the challenges in values, academic performance, future planning, and economic concerns (Simonelli-Muñoz AJ et al, 2018).

Anxiety is nothing but the categorised experience by the unpleasant events' fearful anticipation (Lang, 2019). Now-a-days, one of the challenging conditions is stress, by which the body's homeostatic mechanism's perturbation is resulted. From adverse demanding circumstances, it is resulted that stress as well as anxiety remain emotional/mental brain conditions (Cramer et al, 2018). Among athletes, greater attention is warranted for anxiety due to its significant implications.

Athletes who undergo anxiety and stress due to their postings, high competitiveness, other curriculum tasks etc., (Balaji et al, 2019). Among many remedies to overcome the anxiety and stress and its effects, there is an effective remedy so called Yoganidra (Erdoğan Yüce and Muz, 2020), in which a person would be in deep relaxation, yet consciousness works at a deeper level (Margulis et al, 2021). In terms of psychology, the hypnogogic state which is a state between wakefulness and sleep is achieved in Yoganidra (Kavi, 2023). There have been six stages in Yoganidra in it: externalization, internalization, opposite sensation and feeling, sensation, breath awareness, the body's different parts' rotation of consciousness (Musto and Hazard Vallerand, 2023). Overall sense of well-being, stress reduction, better emotional regulation, enhanced concentration, and improved sleep quality are included in the overall benefits of YogaNidra (Moszeik et al, 2022). In particular, it has been beneficial for every individual is dealing with anxiety, insomnia and other stress-related issues.

In terms of self-confidence, it is one such positive attitude of a person holding it towards to the self-concept of an individual. It is believed that it remains as one's belief in the abilities and strength of an individual thus it has been the most important

life skill (Vaishnav et al, 2018). One need to have some confidence level for attaining the goal, success in both professional and personal life and to get through their daily life responsibilities (di Fronso et al, 2024).

In any individual's life, self-confidence is one such motivators and regulators of behaviour. Proper guidance as well as motivation have been very necessary that take place in any age group people once they reach their adolescence (Bhardwaj & Bhardwaj, 2015). It is a bridge like stage between an individual's childhood and adulthood. It remains nothing but a time of rapid growing development to maturity, finding social and vocational direction, defining personal values, and discovering the individual's real self. Different challenges are faced by many psycho-physiological changes which take place from these changes (Bhardwaj et al, 2024). In addition, level of aggression and emotional stress is high at the early stage in adolescents but there is a fall in intensity gradually. In addition, level of confidence will go up and down. Therefore, Yoga Nidra is emerged as a control method for stress and is also introduced among many lives for the improvement of self-esteem (Fishman et al, 2019). Thus, this study aims to assess the relationship between anxiety levels among female athletes who undergo Yoga Nidra.

2. LITERATURE REVIEW

Swami Satyananda has designed Yoga nidra which is the simplified version of Tantric Kriyas. Most probably, Yoga nidra has been one such technique mainly for inducing the complete emotional, physical and mental relaxation. In Cherring Cross Medical School London, there had been may studies done on this particular topic to prove it. It remains one of the significant techniques with which an individual could change his/her state of consciousness from beta to alpha and delta too. Thus, it is also considered as a pratyahara (Kamakhya Kumar, 2018).

In addition, simultaneous relaxation is brought by Yoga Nidra through inducing the alpha brainwave in both brain's hemispheres and also it would alter the states of consciousness. Further, it is proven that it has been the surest, safest and also weakest method for bringing about the change in the conscious state among human beings. It wouldn't be recognised without knowing what is stress, and the way the humans' health gets strained. Effectively, awareness has been a primary importance of nothing but learning about the stress management. Most frequently, human body remains the first place in order to reveal its problem in one way or the other (Kanaujia et al, 2023).

We can see that Yoga Nidra is not about concentration. It just gives that every individual needs their mind to be moving but need to be more aware of the experience they get. Sleep is meant by Yoga Nidra with the trace of awareness. In addition, many of the studies have been done in many other parts of the world in order to observe the Yoga Nidra's effect as it is observed in a significant study that the serum cholesterol levels were lowered by Yoga nidra among cardiac patients (Markil et al, 2012). It is stated by one of the studies that, the role OF Yoga Nidra would be the major one in management regimes and coronary care. In the cardiovascular disease prevention, the value of yogic relaxation practice is well recognised and accepted (Tastanova et al, 2024).

Many studies have demonstrated that the daily practice of Yoga Nidra inducing the drop in blood pressure which possesses a far-reaching effect, that extends throughout the day. It has not been only a coincident of transient effect with the practice session. It had been found that there had been a reduction in the levels of anxiety and blood pressure among hypertensive patients which continued for nearly 12 months after Yoga nidra training (Bucea-Manea-Țoniș et al, 2023).

The Yoga nidra techniques has its curative, preventive and promotive value. Stress and the relevant disorders are prevented through inducing the mental, physical and emotional relaxation deeply by training the individual's mind for keeping it quiet and calm through rooting out the thoughts and desires repressed from the deeper mind realms. The inherent creativity is awakened and the practitioner's learning and memory abilities are promoted by Yoga Nidra as a promotive science. In addition, every researcher indicated that for curing the psychological disorders such as insomnia, anxiety, hostility etc. and psychosomatic diseases such as cancer, coronary heart disease, hypertension etc., Yoga Nidra can possibly be used as a significant therapeutic technique. The Yoga Nidra technique is considered as one of the real boons for mankind in the modern lifestyle, whereas psychosomatic and psychological problems have been on the rise (Verma et al, 2022).

In a study, there had been psi which missed in the preliminary test session. Simultaneously, it had been felt that this had been due to the students done too many of the preliminary tests, thus they had been too confused as well as rushed by the time, the experimental test took place. Thus, every student had done less preliminary testing, where the class had been less rushed and they had been more with the procedure at ease (de Julián and Pérez, 2022). Improved overall scoring was resulted. A consistent score is given by the relaxation session more than two years. It is suggested that the lessons taken and learnt from the first year resulted in an environment that remains conducive for psi-testing. From the result, it is observed that there had been a significant and positive effect to enhance the children's memory (Khalsa et al, 2024).

A study by Gaultney found out and identified the vulnerability for insomnia and other sleep related disorders and the impact on academics due to certain issues in sleep among many college students in America. The survey's findings had shown that about 26% of students had been to at least one sleep disorder. There had been one of the considerable negative effects on the students' academic performance with disturbed sleep cycles. It is concluded that there have been the effects of sleep deprivation among students in Excessive Daytime sleepiness (EDTS) form (Pooraghaei Ardekani et al, 2024).

According to the medical findings, sleep issues have been one of the primary disorders instead secondary to depression, thus, attention is needed from college psychologists and parents' psychologists, most importantly in the US, where sleep issues have been common among college students. In addition, a study had been conducted for determining the relationship between poor sleep quality as well as sleep deprivation and poor sleep quality on non-depressed students' academic performance in America. A significant relationship had been showed negatively by the study between the Global Sleep Quality Score (GSQ) on academic grades and PSQI by which a direct sleep quality effect is impacted on the students' academic output (Harrington, 2021).

Every researcher is so keen to know and understand the Yoga Nidra effect in many different directions; therefore, it has been the right time mainly for going deep into the Yoga Nidra impact search for the assessment of the Yoga Nidra effect on the subjects' stress level and for the assessment of the Yoga Nidra effect on the subjects' anxiety level. In addition, there have been numerous studies in relevance to Yoga Nidra and its impact among college students, young adults, pregnant women etc. But only a very few researches have been done on the Yoga Nidra's effect among female athletes to enhance their self-confidence and reduce their anxiety levels which sis considered as a research gap.

3. MATERIALS AND METHODS

The present study is conducted in the department of yoga of SRM Institute of science and Technology, Kattangulathur, after ethical approval Reg.No:8824 is obtained on 2024/05, where 82 female athletes has been selected using random sampling aged between 18 and 23 years for the interventional study as per the inclusion and exclusion criteria.

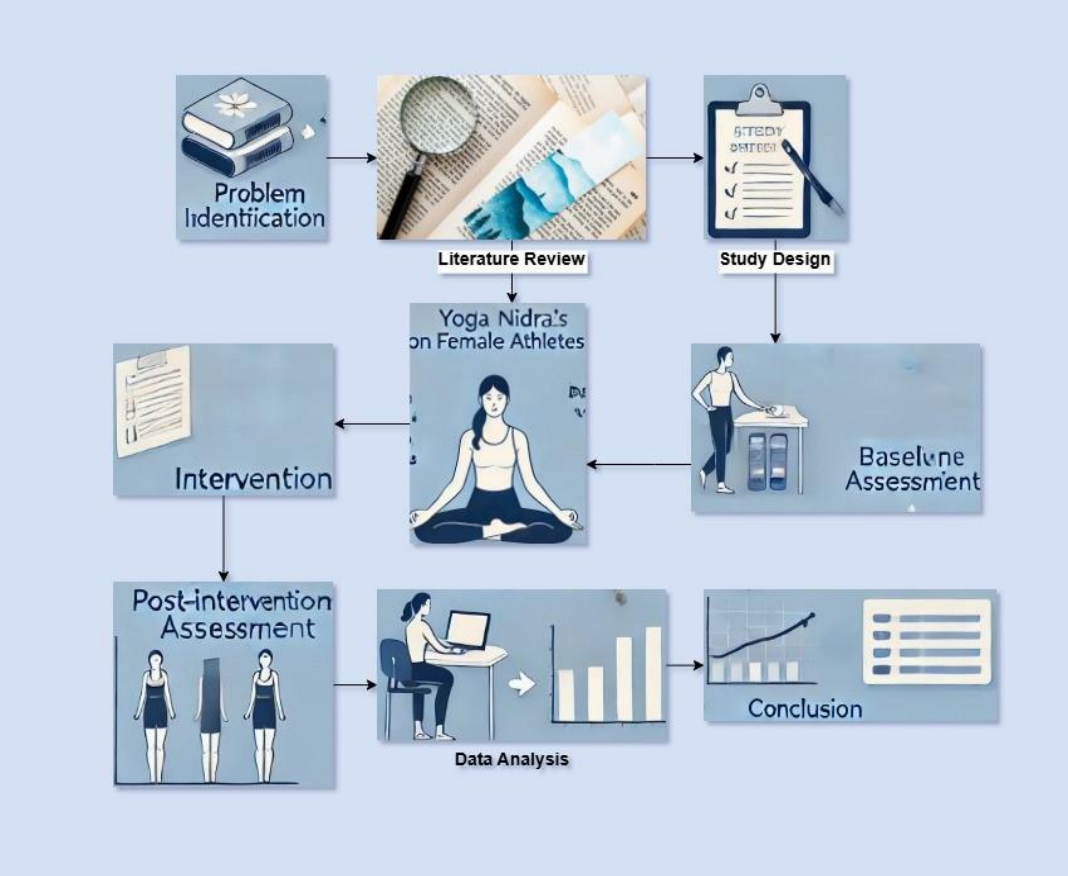

Figure 1. Proposed System Design

Study Design

In this study, the researchers used a randomized controlled trial design to assess the efficacy of Yoga Nidra on self-efficacy and anxiety levels in female sportspersons. The participants have been allocated randomly to one of the two groups as per the following distribution:

- Experimental Group: Completed intervention of Yoga Nidra.
- Control Group: No intervention given.

Participants' Inclusion and exclusion criteria

In this investigation, there were a total of 82 female athletes, 41 of whom have been placed in the experimental group while the remaining 41 that had been the control group. The inclusion criteria were as follow:

- Between 18 years of age and 23 years of age
- Currently practicing competitive sport in college or club level.
- No previous experience on Yoga Nidra or such keeping of mental states inactive.

Moreover, exclusion criteria ruled out any pre-existing psychological conditions, or injury due to which the individual may not have been able to participate.

Intervention

Participants have been participated in Yoga Nidra program for 12 weeks in the experimental group, attending three sessions per week. Each session lasted 20–30 minutes and was overseen by a professionally qualified instructor of Yoga Nidra. The Yoga Nidra sessions emphasized baring the mind, being aware of oneself, and using positive mental images to bolster self-belief and combat anxiety. On the other hand, no intervention was offered to participants in the control group though, it was suggested they continue with their normal training regimes.

Data collection procedure

Yogic intervention is introduced to the recruited participants with necessary consent taken from them. Pranayama and meditation are included in the Yogic intervention, which had been practiced for over 12 weeks by the participants. The outcomes were measured at two timepoints (beginning as well as 45 days apart). Data had been collected and compared after pre- and post-intervention.

- Baseline Assessment: To collect baseline data on the self-confidence and anxiety levels of all the participants before the intervention, all the participant's completed the TSCI and STAI scales.
- Randomization: Simple randomization means that participants were randomly assigned to either Yoga Nidra (experimental) group or control with an intention that equal number were in each group (41 per group).
- Intervention Period: While the experimental group practiced the Yoga Nidra sessions, the control group went on with their usual training pattern without any extra intervention.
- Post-Intervention Assessment: The TSCI and STAI scales were administered again to both groups, at the end of the 12-week intervention, to determine any self-confidence and anxiety levels changes.

4. ANALYSIS AND RESULTS

Descriptive statistics

The descriptive statistics table provides an overview of the sample characteristics and key variables measured before and after the intervention for the female athletes in the study.

Table 1. Descriptive Statistics

	Mean	Std. Error	Std. Deviation
Age of the Athletes	20.46	0.18	1.62
Height (cm)	165.26	0.59	5.34
Body Mass (Kg)	20.87	0.14	1.27
Trait Sport Confidence Inventory (TSCI) - Pre	43.34	1.67	15.16
State-Trait Anxiety Inventory (STAI) - Pre	47.54	1.90	17.23
Trait Sport Confidence Inventory (TSCI) - Post	65.30	3.15	28.51
State-Trait Anxiety Inventory (STAI) - Post	51.78	1.67	15.11

Age: The participants were relatively young, with the athletes' mean age standing at 20.46 years and a standard deviation of 1.62, denoting a narrow age range of early twenties.

Height and Body Weight: The subjects in the study, on average, had a height of 165.26 cm (SD = 5.34) and a body mass of 20.87 kg (SD = 1.27), portraying a quite uniform body structure within the sample as it exhibited low variability weight distribution.

Trait Sport Confidence Inventory (TSCI):

The average TSCI score at pre-intervention assessment was 43.34 (SD = 15.16) indicating the self-confidence in sports among the athletes prior to any intervention.

After the intervention, the mean TSCI score improved to 65.30 (SD = 28.51), which indicates the level of self-confidence. This shift indicates that the intervention tool, aimed at the enhancement of sport confidence, has influenced the athletes in a positive way. However, the post intervention larger standard deviation indicates that there is variability in confidence levels among the athletes.

State-Trait Anxiety Inventory (STAI):

The average pre-intervention STAI score was 47.54 (SD = 17.23) exemplifying the baseline anxiety levels of the athletes prior to the commencement of the intervention.

After the intervention, the mean STAI score decreased to 51.78 (SD = 15.11). This slight reduction made in the average anxiety levels indicates an improvement in the levels of anxiety among the athletes due to the intervention.

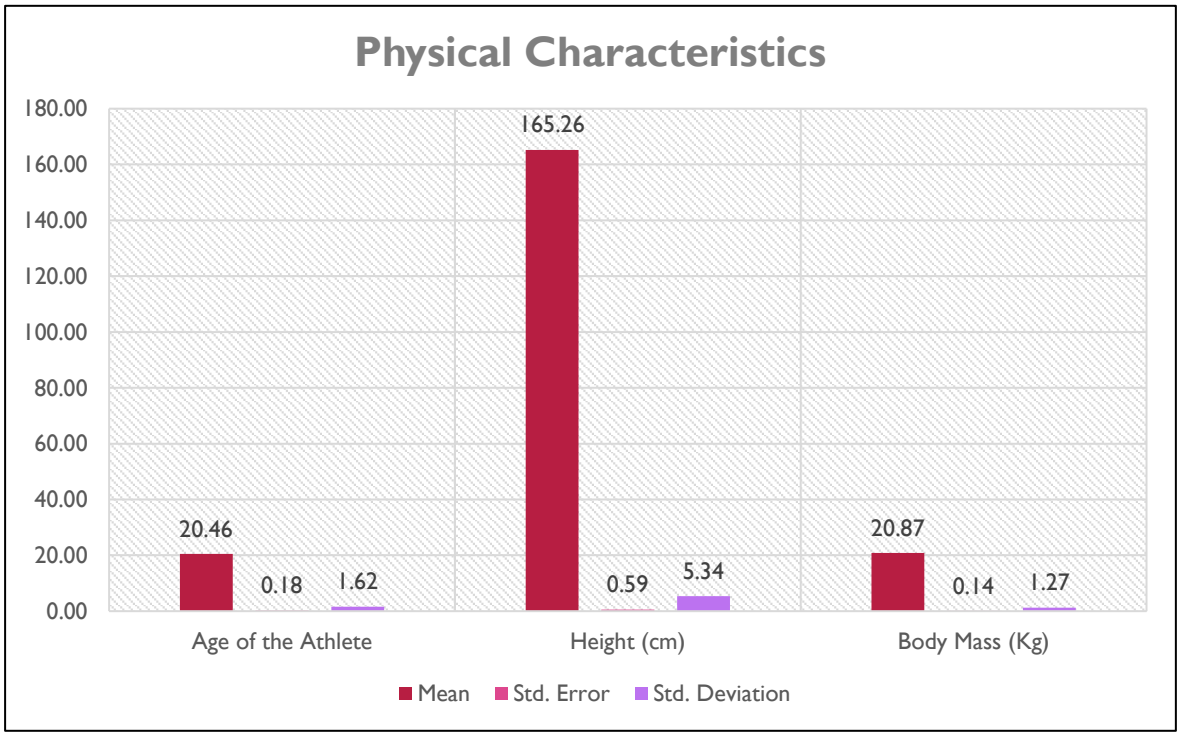

Figure 2: Physical Characteristics of Female athletes

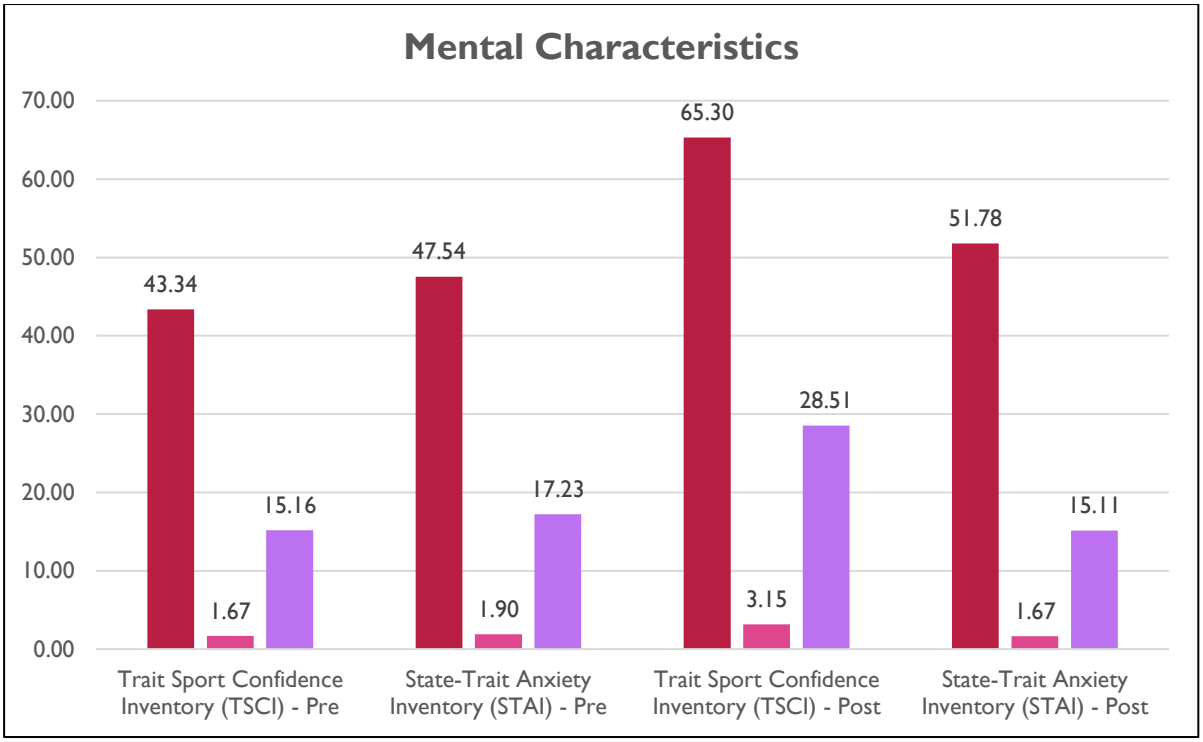

Figure 3: Mental Characteristics of Female athletes

ANCOVA: Trait Sport Confidence Inventory (TSCI) and Study groups

Table 5.1 Descriptive Statistics: TSCI score

Dependent Variable: TSCI score post			
Study Group	Mean	Std. Deviation	N
Yoga Nidra Group	89.61	11.79	41
Control Group	41.00	17.21	41
Total	65.30	28.51	82

The Yoga Nidra group's mean score (M = 89.61, SD = 11.79) is significantly higher than the control group's mean score (M = 41.00, SD = 17.21). This means that female athletes tend to be more self-assured after attending Yoga Nidra sessions. The enormity of the mean score difference indicates that the use of TSCI in this study confirmed that Yoga Nidra is effective in its primary purpose of enhancing self-confidence.

Table 5.2 Tests of Between-Subjects Effects

Dependent Variable: TSCI score post						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	48439.622[a]	1	48439.62	222.56	.000	0.736
Intercept	349707.62	1	349707.62	1606.77	.000	0.953
Study group	48439.62	1	48439.62	222.56	.000	0.736
Error	17411.76	80	217.65			

Total	415559.00	82				
Corrected Total	65851.38	81				
a. R Squared = .736 (Adjusted R Squared = .732)						

The corrected model accounted for most of the variance in TSCI scores as R-squared was 0.736 (adjusted R-squared = 0.732). This means that approximately 73.6% of change in self-confidence scores can be explained by this model which is, of course, the study group effect in the model. The corrected model summed Type III Sum of Squares was 48,439.62 with corresponding Mean Square 48,439.62 and F statistic 222.56, which is statistically significant ($p < .001$). Such strong significance can be interpreted to mean that the model is capable in accounting for the differences in TSCI scores measured.

To summarize, the ANOVA results indicate that the intervention of Yoga Nidra significantly benefited self-confidence scores relative to the control group, while a significant amount of variation in TSCI scores was accounted for by the group membership.

Table 5.3 Pre and Post scores - Tests of Between-Subjects Effects

Dependent Variable: TSCI_post_scores						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	49569.376[a]	2	24784.688	120.255	.000	.753
Intercept	10241.836	1	10241.836	49.693	.000	.386
TSCI_pre_scores	1129.754	1	1129.754	5.482	.022	.065
study group	14951.405	1	14951.405	72.544	.000	.479
Error	16282.002	79	206.101			
Total	415559.000	82				
Corrected Total	65851.378	81				
a. R Squared = .753 (Adjusted R Squared = .746)						

The corrected model showed an R-squared of 0.753 (adjusted R-squared = 0.746), suggesting that the model explains around 75.3% of the variance in TSCI scores post-intervention. Such a high value of R-squared shows a good fit of the model to the data, with the variables explaining the differences in self-confidence scores quite satisfactorily.

The results indicate that the status-quo adjustable mean level of post-TSCI scores is significantly above zero (ff = 49.693, $p < .001$) with a significant Type III Sum of Squares for Intercept equal to 10,241.836, after controlling for one covariate (TSCI pre-scores).

Pre-Intervention TSCI Scores (Covariate): This variable has a Type III Sum of Squares (SS) value of 1,129.754, an F-value of 5.482 with a significance level of $p = .022$ and a Mean Square (MS) value of 1,129.754. It is demonstrated that the pre-intervention scores of TSCI significantly impacted the post-intervention scores given the small effect size (partial eta squared = 0.065). It thus indicates that there was a slight but significant effect of the initial confidence level (TSCI pre-scores) on the final scores.

Study Group (Yoga Nidra vs. Control): The study group variable which represents the impact of Yoga Nidra intervention has a type III Sum of Squares of 14951.405, an F-value of 72.544 ($p < 0.001$) and a Mean Square of 14951.405 which suggests a very strong difference in the post-intervention self-confidence levels of Yoga Nidra and control groups. In regards to the study group, the partial eta squared of 0.479 indicates a large level of effect whereby about 47.9% of the post-intervention TSCI variability is that of the study group alone even after controlling for the pre-intervention self-confidence scores. Sum of Squares of 16282.002 and Mean Square of 206.101 are in the error term.

ANCOVA: State-Trait Anxiety Inventory (STAI) and Study groups

Table 5.4 Descriptive Statistics: STAI score

Dependent Variable: STAI post scores			
Study Group	Mean	Std. Deviation	N
Yoga Nidra Group	39.00	7.51	41
Control Group	64.56	8.44	41
Total	51.78	15.11	82

The post-intervention State-Trait Anxiety Inventory (STAI) results show presence of significant difference in the anxiety levels between the Yoga Nidra participants and control participants. The mean anxiety score for the Yoga Nidra participants (M = 39.00, SD = 7.51) is lower compared to the control group (M = 64.56, SD = 8.44). This implies that taking part in Yoga Nidra sessions leads to very high reduction in anxiety levels among female athletes. The mean scores that are quite different between the groups shows that Yoga Nidra was effective in reducing anxiety.

Table 5.5 Tests of Between-Subjects Effects

Dependent Variable: STAI score post						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	13393.951[a]	1	13393.951	209.933	.000	.724
Intercept	219859.951	1	219859.951	3446.015	.000	.977
Study group	13393.951	1	13393.951	209.933	.000	.724
Error	5104.098	80	63.801			
Total	238358.000	82				
Corrected Total	18498.049	81				
a. R Squared = .724 (Adjusted R Squared = .721)						

The corrected model has an R-squared value of 0.724 (adjusted R-squared = 0.721) which means that 72.4% of the variability in post-intervention STAI scores is accounted for by the model. This high R-squared found in this analysis indicates that the model is well-fitting since much of the variability in anxiety scores is explained by the group (Yoga Nidra and the control group).

It was observed that the intercept recorded a a Mean Square of 219,859.951 and Type III Sum of Squares of 219,859.951 exhibited a significant F-value of 3446.015 ($p < .001$). This intercept coefficient indicates that the baseline STAI scores when adjusting for the study group effect is the overall baseline STAI score. The very high F value and its significance, however, indicate that there was a strong mean level in post-STAI scores even after the intervention effect was accounted for.

Study Group (Yoga Nidra vs. Control): Within the group of study, the variable of interest which measures the impact of Yoga Nidra intervention has earn a Type III Sum of Squares, Mean Square, and F-value of 13,393.951, 13,393.951 and 209.933 respectively which was found statistically significant at $p < .001$. This high F-value and significance level indicates there exist a statistical difference regarding post STAI scores between experimental Yoga Nidra group and control group. In addition, the partial eta squared of 0.724 for the study group variable implies that there was a large effect size with about 72.4 % of the post intervention anxiety scores due to the intervention. This explains the reason for the large drop in anxiety levels among the experimental group due to the effectiveness of Yoga Nidra as opposed to the control group.

There is a reported error term with a Sum of Squares 5104.098 and a Mean Square of 63.801, indicating that there was

variation in the post-STAI scores that cannot be attributed to the study groups. The findings from ANCOVA opine strongly in favor of the effectiveness of Yoga Nidra intervention for lowering the anxiety levels among female athletes rated using STAI. The large effect size and the very highly significant p-value associated with the study group show that Yoga Nidra was able to significantly and meaningfully reduce anxiety in the experimental group as opposed to the control g roup. Many of the anxiety levels explained in the model suggest the importance of Yoga Nidra to anxiety management techniques.

Table 5.6 Pre and Post scores - Tests of Between-Subjects Effects

Dependent Variable: STAI_pre_scores						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	13652.293[a]	2	6826.147	111.286	.000	.738
Intercept	7412.097	1	7412.097	120.839	.000	.605
STAI pre scores	258.342	1	258.342	4.212	.043	.051
Study group	3998.727	1	3998.727	65.191	.000	.452
Error	4845.755	79	61.339			
Total	238358.000	82				
Corrected Total	18498.049	81				
a. R Squared = .738 (Adjusted R Squared = .731)						

The corrected model has shown R square value at .738 (Adjusted R Square = 0.731). Hence, the explained variance in post-intervention STAI scores has approximated at 73.8% by the given model. Such a high R-squared value indicates that the model is a good fit, and in addition to initial anxiety levels (STAI pre-scores), membership within groups (Yoga Nidra versus control) explains most of the variance in the post intervention anxiety scores.

Intercept: The Type III Sum of Squares for intercept is 7412.097 with Mean Square 7412.097, and an F-value of 120.839, which is significant ($p < 0.001$). This indicates that the baseline mean level of STAI scores after intervention is statistically significant even after controlling for STAI pre-scores and study group effects.

STAI Pre-Scores (Covariate): To address the potential effects of variance in participant pre-intervention anxiety scores, STAI pre-scores were treated as a covariate. This covariate had a Type III Sum of Squares of 258.342, a Mean Square of 258.342, and an F-value of 4.212 with a p-value of .043. This means that there was a small yet statistically significant effect of pre-treatment levels of anxiety on post-treatment levels of anxiety ($p < .05$).

Study Group (Yoga Nidra vs Control): The study variable Yoga Nidra intervention has Type III Sum of Squares equals to 3,998.727, Mean Square of 3,998.727, and F-value equals to 65.191 at $p < .001$ significance level. This means that there is a significant difference in post-intervention STAI scores between the Yoga Nidra group and control group – which is 0.452.

The error term analysis includes a Sum of Squares of 4,845.755 with a Mean Square of 61.339 indicating that some variability observed in the scores of anxiety before and after the treatment still cannot be explained by the model and it may be as a result of differences between individuals in the groups. ANCOVA findings emphasize that the implementation of Yoga Nidra was very effective in lowering anxiety levels assessed by STAI post scores in comparison to the control group. The intervention reduced post treatment anxiety levels when pre-treatment anxiety levels were controlled for, which was evidenced by a high partial eta squared value for the study group. However, the initial STAI pre-scores were found to be a relevant covariate, their effect size was small indicating that the effect of Yoga Nidra was the primary effective factor for the reduction of anxiety. Therefore, it can be concluded that Yoga Nidra would work as a useful therapeutic measure to reduce anxiety among sports women.

Independent t-test: Study group and Age, BMI

The independent samples t-test results show a statistically significant difference in height and body mass between female athletes aged 18–20 years and those aged 21–23 years.

Table 5.7: Independent t-test

Age group		N	Mean	Std. Deviation	Std. Error Mean	t- value	p-value
Height (cm)	18 - 20 years	42	164.12	5.45	0.84	-2.015	0.047
	21 - 23 years	40	166.45	5.01	0.79		
Body Mass (Kg)	18 - 20 years	42	20.59	1.23	0.19	-2.087	0.040
	21 - 23 years	40	21.17	1.27	0.20		

Height: Looking at the height, it was noted that the average height in the 18–20 years group was 164.12 cm (SD = 5.45) while those aged 21–23 years had an even higher mean height of 166.45 cm (SD = 5.01). In the analysis, the t-test returned t-value of -2.015; and as for p-value, it was 0.047 ($p < .05$) thus showing that there is a statistically significant difference in height with respect to the two age cohorts. This is to say that a clear trend is established in which the athletes in the age group of 21-23 years are likely to be taller than those in the age cohort of 18-20 years.

Body Mass: Regarding body mass, the mean body mass of the 18-20 years group was observed to be 20.59 kg (SD = 1.23), while the 21-23 years at age group had a mean body mass of 21.17 kg (SD = 1.27). The t-test therefore yielded a t-value of -2.087, while p-value returned was 0.040 ($p<0.05$), thus revealing that there is a statistically significant difference in body mass of the said age groups. This finding indicates that athletes in the age category of 21 – 23 years have a higher body mass compared to their counterparts in the age category of 18 – 20 years.

5. DISCUSSION

The present study aids to assess the yoga interventions' effects on female athletes in reducing anxiety and enhancing self-confidence. The obtained results showed that it can be observed that participants in post-yoga intervention group had lower anxiety and stress. When their acceptance, awareness, mindfulness and action are enhanced by Yoga in daily activities. It is observed that the psychological flexibility is in association with their anxiety, stress, dispositional mindfulness and sleep quality of the participants. The study's results have been consistent with several studies (Kanaujia et al, 2023).

Another study found that following yoga and mindfulness practice increased athletes' flow state dramatically, whereas anxiety and depression reduced significantly. In addition, enjoyment with training and competition increased dramatically (Tastanova et al, 2024). The research found that athletes who received mindfulness training had a statistically significant variance in the dispositional flow characteristics of loss of feeling self-conscious and autotelic experience. These findings indicate that mindfulness may alter aspects related to sports performance. the ANOVA results indicate that the intervention of Yoga Nidra significantly benefited self-confidence scores relative to the control group, while a significant amount of variation in TSCI scores was accounted for by the group membership.

In the study by Kornatovska et al (2022), it had been found that psychological health of the participants improved with substantial reductions in the symptoms of somatization and sadness with a large effect size. There is a slight fall in anxiety symptoms yet not significantly and there could be observed a small effect size. No significant differences had been found in the life's quality between the assessment of pre- and post-intervention test. The levels of lower bodily and cognitive performance were reported considerably after the intervention as per the performance psychology factors (Kornatovská et al, 2022).

The results of ANCOVA very clearly suggest that the Yoga Nidra intervention had a great significant impact on self-confidence (measured by TSCI) as opposed to the control group even after accounting for pre-intervention levels of confidence. The large effect size due to the study group variable further magnifies the usefulness of Yoga Nadra among Female Athletes in improving self-confidence. In addition, while the initial self- confidence (pre TSCI scores) was a relevant covariate, it only explained a small amount of the variance emphasizing the overriding effect of the Yoga Nidra intervention on the confidence levels achieved after the intervention period (Pooraghaei Ardekani et al, 2024).

Before it is suggested as a therapeutic option, stress as well as anxiety may be alleviated by yoga with randomization, large populations, lengthy duration, and sufficient controls (Bucea-Manea-Țoniș et al, 2023). In contrast, the obtained result was compared with other studies in which athletes from different sports club to non-randomized intervention of control group had been discovered and seen the increased goal-directed energy and awareness among them after yogic intervention.

The findings from ANCOVA opine strongly in Favor of the effectiveness of Yoga Nidra intervention for lowering the anxiety levels among female athletes rated using STAI. The large effect size and the very highly significant p-value associated with the study group show that Yoga Nidra was able to significantly and meaningfully reduce anxiety in the experimental group as opposed to the control group. Many of the anxiety levels explained in the model suggest the importance of Yoga Nidra to anxiety management techniques. Therefore, it can be concluded that Yoga Nidra would work as a useful therapeutic measure

to reduce anxiety among sports women.

6. CONCLUSION

Female athletes practicing yoga is feeling less anxiety and stress and felt self-confidence as per the study's findings. In addition, their dispositional attentiveness is enhanced and restful sleep is facilitated. These benefits have been beneficial for many competitors and sports personalities who have been susceptible to overexertion. In fact, athletes especially female athletes can seize the benefit from yoga in many ways. They may strengthen their mental resilience which is essential for their sports or every daily life for their enhanced psychological flexibility. The strongest predictors to improve psychological flexibility is reduced anxiety and stress alleviation and also building or improving self-confidence in daily lives of athletes. To improve the self-confidence psychological rigidity and experience avoidance could be the good indicators for supporting good sleep patterns and improving mindfulness. This intervention finally builds and enhances self-confidence among them.

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