Chapter IV
Results and Discussion

The primary goal of the research is to examine the Investigations' goal was to find out more about, "Effectiveness of Mindfulness Therapy in managing Performance Anxiety and enhancing Self-efficacy among Hockey Players". The findings are presented in the sections below:

Section I Distribution Analysis of performance anxiety, self-efficacy and mindfulness of hockey players, Correlation Coefficients between performance anxiety, self-efficacy and mindfulness among hockey players and independent t test for male and female hockey players

Section II explains the results of the Mean and Standard Deviation, Repeated Measures

ANOVA, Post-hoc Pairwise comparison during Before, After and Follow-up phases to find out the Effectiveness of the Intervention in managing performance anxiety of Hockey players

Section III proves the results of the Mean and Standard Deviation, Repeated Measures ANOVA, Post-hoc Pairwise comparison during Before, After and Follow-up phases to find out Effectiveness of the Intervention and enhancement of Self-efficacy in Hockey players

Section IV reveals the results of the Mean and Standard Deviation, Repeated Measures ANOVA, Post-hoc Pairwise comparison during Before, After and Follow-up phases to find out the Effectiveness of the mindfulness among Hockey Players.

Section V reveals the results of the Mean and Standard Deviation, Repeated Measures ANOVA, Post-hoc Pairwise comparison during Before, After and Follow-up phases to find out the effectiveness of the mindfulness among male and female Hockey Players.

Section I

This section describes the results regarding distribution analysis of performance anxiety, self-efficacy and mindfulness of hockey players, correlation coefficients between performance anxiety, self-efficacy and mindfulness among hockey players and independent t test for male and female hockey players.

Table 1

Distribution Analysis of performance anxiety, self-efficacy and mindfulness among Hockey Players

N=80

Levels	Performance Anxiety	Self-efficacy	Mindfulness
High	49	44	50
Low	31	36	30

Table 1 represents the complete study sample of 80 hockey players. Among them, 49 of them reported high on performance anxiety and 31 were having low performance anxiety. On Self-efficacy, 44 hockey players had higher self-efficacy and 36 found to be low. On mindfulness, 50 hockey players were more mindful and 30 of them had less mindfulness. 49 players who tested positive for performance anxiety were chosen for the study in order to assist the players who suffer from high levels of performance anxiety.

Section – II

This section explains the result of the Percentage level of the Demographic Data such as Age, Gender, Locality, Education, Religion, Siblings, Total Family Members, Family Type, and Annual family Income.

Table 2

Sociodemographic variables of the Hockey players

N = 49

Variables		Frequency	Percent
Age	18 – 20	44	90
	21 – 24	5	10
Gender	Male	29	59
	Female	20	41
Locality	Urban	41	84
	Rural	8	16
Education	Pre-university	23	47
	Degree	25	51
	Post-graduation	1	2
Religion	Hindu	48	98
	Muslim	1	2
Siblings	1 – 2	39	80
	3 – 4	10	20
Total Family Members	Below 4 members	26	53
	Above 4 members	23	47
Family Type	Nuclear	25	52
	Extended	10	20
	Joint	7	14
	Single Parent	7	14.
Annual Family Income	Below Rs. 1, 50, 000/-	15	31
	Above Rs. 1, 50, 000/-	27	55
	Not mentioned	7	14

Percentages are rounded off

Table 2 shows the sociodemographic data of the male and female players. With respect to age majority (90%) of them in the age group of 18-19 years and 10% in the age group of 20-22 years; 59% were males and 31% were females; majority from urban (84%) and 16% residing in rural, 47% pre university, 51% graduates and 2% was pursuing post-graduation; majority were Hindus (98%) and 2% were to Muslim; majority (80%) had 1 or 2 siblings and 20% had 3 or 4 siblings; 57% hockey players were below 53% and 47% had more than 4 family members; 52% belongs to nuclear family, 20% belongs to extended and 14% belongs to joint and single parent family; majority of the hockey players annual family income were above Rs. 1,50,000/- and 31% below Rs. 1,50,000/- and 14% not willing to share their annual family income.

Table 3

Correlation Coefficients between performance anxiety, self-efficacy and mindfulness among hockey players

N = 49

Variables	Performance Anxiety	Self-efficacy	Mindfulness
Performance Anxiety	1	-0.18 ^{NS}	-0.12 ^{NS}
Self-efficacy	-0.18 ^{NS}	1	0.22
Mindfulness	-0.12 ^{NS}	0.22 ^{NS}	1

NS = Not Significant

Table 3 shows no significant relationship (r = 0.22) between self-efficacy and mindfulness; performance anxiety and self-efficacy (r = -0.18) and performance anxiety and mindfulness (r = -0.12). However, it implies that as the level of performance anxiety increases, but the level of self-efficacy decreases and vice versa. Hence, the hypothesis, **"There will be a significant relationship between performance anxiety, self-efficacy and mindfulness among hockey players**" is rejected.

Table 4

Mean, Standard Deviation and 't' value of Male and Female Hockey Players in Performance Anxiety, Self-efficacy and Mindfulness

Male = 29

Female = 20

Variables	Gender	Mean	Standard Deviation	t
Performance Anxiety	**Male**	32.45	5.38	3.42**
	Female	27.60	4.01	
Self-efficacy	**Male**	29.14	4.24	2.31*
	Female	31.95	4.08	
Mindfulness	**Male**	36.45	3.31	2.30*
	Female	39.20	5.08	

***** = Significant at 0.01 level*** **** = Significant at 0.05 level***

Table 4 displays mean, standard deviation and independent ‘t’ test for male and female hockey players. The scores clearly indicate that the female players reported less performance anxiety (Mean = 27.60) compared to male players (Mean = 32.45) which in turn shows that male players are under more pressure and tension during their performance whereas female players are strong enough to ventilate their pressure and tensions by reducing their anxiety. In self-efficacy, male and female hockey players had a mean score of 29.14 and 31.95 with the ‘t’ value 2.31 indicating significant differences between male and female hockey players at 0.05 level. The score clearly depicts that female players found to have more belief on themselves while playing the match whereas the male hockey players were not much sportive in believing oneself. On mindfulness, male and female hockey players had a mean score of 36.45 and 39.20 with the ‘t’ value 2.30 indicating significant differences between male and female hockey players. The scores clearly specifies that female players tend be more mindful for internal as well as external experiences but male players were not much concerned to any of their experiences compared to female players. Thus, the overall results depict that female hockey players proved to be more mindful in managing performance anxiety and enhancing self-efficacy towards the play compared to the male hockey players who found to be more anxious in performance and had low self-efficacy and were less mindful to the external environment. Thus, the hypothesis **“There will be significant differences between male and female hockey players in performance anxiety, self-efficacy and mindfulness”** is accepted.

Section III

This section presents the results of the Mean and Standard Deviation, Repeated Measures ANOVA, Post-hoc Pairwise comparison during Before, After and Follow-up phases to find out the Effectiveness of the Intervention in managing performance anxiety of Hockey players.

Table 5

Mean and Standard Deviation for Somatic Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy

N = 49

Dimension	Phases	Mean	Standard Deviation
Somatic	**Before**	9.65	2.12
	After	7.98	2.89
	Follow-up	6.57	1.49

Table 5 displays the mean and standard deviation scores of the hockey players during before, after and follow-up phases of mindfulness therapy in somatic dimension of performance anxiety. The scores indicate the higher somatic symptoms of performance anxiety found in the hockey players before the intervention programme and after intervention it was reduced to 7.98 and it further reduced in the follow-up phase. Hence, it becomes essential to teach mindfulness therapy for the hockey players to manage their somatic anxiety and deal effectively with the hurdles coming in the way of players performance.

Table 6

Repeated Measures ANOVA for Somatic Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Phases	Sum of Squares	df	Mean Square	F
Sphericity Assumed	233.238	2	116.619	21.47**
Greenhouse Geisser	233.238	1.62	143.694	21.47**
Huynh-Feldt	233.238	1.67	139.510	21.47**
Lower-bound	233.238	1.00	233.238	21.47**

**** = Significant at 0.01 level**

Table 6 displays the results of Repeated Measures ANOVA for somatic dimension of performance anxiety during before, after and follow-up phases of intervention among hockey players. It clearly shows that there was a significant difference found in 49 hockey players who were administered with sports performance anxiety scale. The results also proved that mindfulness-based interventions seem to be appropriate for the control of somatic anxiety of the hockey players. Mindfulness Training is very useful to reduce problems such as pain, stress, anxiety and other disorders. This practice which is an age-old elixir for energising the brain and thoughts has numerous benefits when performed on a daily basis. Thought process, confidence and overall performance of an individual can all benefit from optimal focus of attention. Hence the hypothesis **"There will be significant differences for Somatic dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players"** is accepted.

Table 7

Bonferroni post-hoc analysis for Somatic Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Somatic	**Before**	**After**	1.67*	0.56
		Follow-up	3.08*	0.35
	After	**Before**	-1.67*	0.56
		Follow-up	1.40*	0.47
	Follow-up	**Before**	-3.08*	0.35
		After	-1.40*	0.47

**** = Significant at 0.05 level***

Table 7 depicts the Pairwise comparison for Somatic dimension of performance anxiety which clearly indicates that there was a significant difference found in Hockey players between before, after and follow-up phases of mindfulness therapy. Based on the

significant reduction in the level of somatic anxiety, the pairwise comparison analysis was carried out to identify the differences between pairs of mean are significant. Megan et al. (2021) conducted research on the effects of mindfulness training on mindfulness, anxiety, emotion dysregulation and performance satisfaction among female athlete students. There were 39 younger and 21 older female athletes from three teams (lacrosse, field hockey, track & field) at a private university in the United States, ranging in age from 18-22. Older student athletes reported successful improvement in a variety of performance related areas such as anxiety reduction, focus and the ability to let things go. More frequent mindfulness practice during workouts, team practice and competitions improved more than their younger team mates on sport performance Therefore, it can be concluded that the administration of the intervention was effective in managing somatic dimension of performance anxiety among hockey players. There is a graphical representation (Fig. 1) for somatic anxiety which clearly indicates the gradual decrease in the performance anxiety among hockey players.

Figure 1

Somatic Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players

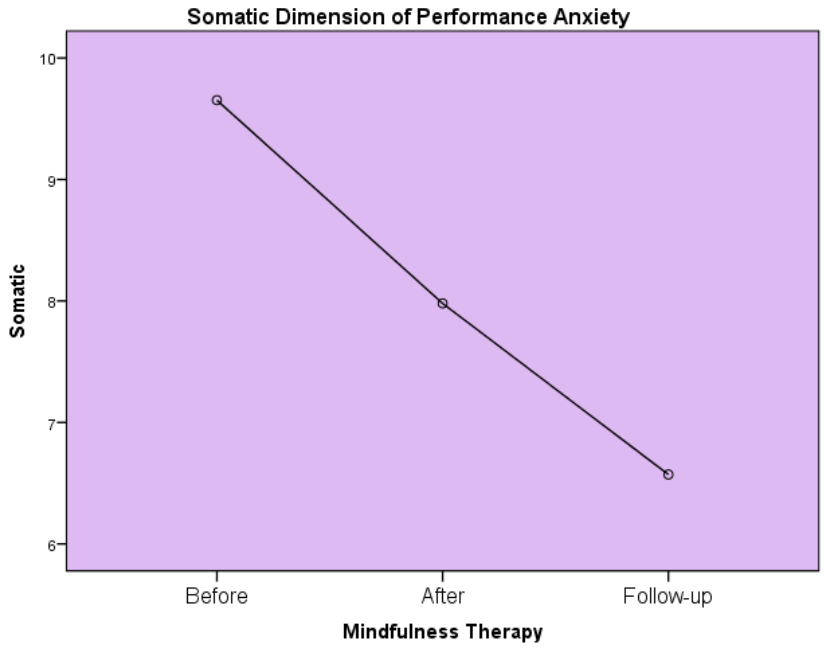


Table 8

Mean and Standard Deviation for Worry Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Dimension	Phases	Mean	Standard Deviation
Worry	**Before**	11.77	2.89
	After	8.65	2.29
	Follow-up	7.46	1.51

Table 8 shows the Mean and Standard Deviation scores of the hockey players during before, after and follow-up phases of mindfulness therapy in worry dimension of Performance anxiety. The scores indicates that moderate level of worries being expressed by the hockey players before the intervention programme and after intervention it was reduced to 8.65 and it further reduced to 7.46 in the follow-up phase. Therefore, it becomes even more important to instruct the hockey players to follow mindfulness therapy therefore they can properly handle forthcoming sporting events and manage their personal concerns as well as professional obstacles that get in the way of their performance.

Table 9

Repeated Measures ANOVA for Worry Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy

N =49

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	484.993	2	242.497	52.54**
Greenhouse Geisser	484.993	1.87	259.246	52.54**
Huynh-Feldt	484.993	1.94	249.501	52.54**
Lower-bound	484.993	1.00	484.993	52.54**

***** = Significant at 0.01 level***

Table 9 provides the outcomes of a repeated measures analysis of variance for the worry dimension of performance anxiety during before, after, and follow-up phases of intervention among hockey players. Training in mindfulness can help the hockey players deal with issues including pain, anxieties, stress and anxiety disorders. The outcomes demonstrated that mindfulness-based therapies appear to be appropriate for the management of anxieties related to the worries and tension for sporting events of hockey players. Hence the hypothesis **"There will be significant differences for Worry Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players"** is accepted.

Table 10

Bonferroni post-hoc analysis for Worry Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Worry	**Before**	**After**	3.12*	0.45
		Follow-up	4.30*	0.46
	After	**Before**	-3.12*	0.45
		Follow-up	1.18*	0.37
	Follow-up	**Before**	-4.30*	0.46
		After	-1.18*	0.37

**** = Significant at 0.05 level***

Table 10 depicts the Bonferroni post-hoc analysis for worry dimension of performance anxiety during before, after and follow-up phases of mindfulness therapy. Based on the significant reduction in the level of worry, the pairwise comparison analysis was carried out to identify the differences between pairs of mean are significant. The mean difference between before and after, after and follow-up, before and follow-up phases found to be statistically significant among hockey players. Therefore, it can be determined that the administration of the intervention was effective in managing the worries of the sports performance of hockey players.

Figure 2

Worry dimension of performance anxiety during before, after and follow-up phases of mindfulness therapy among hockey players

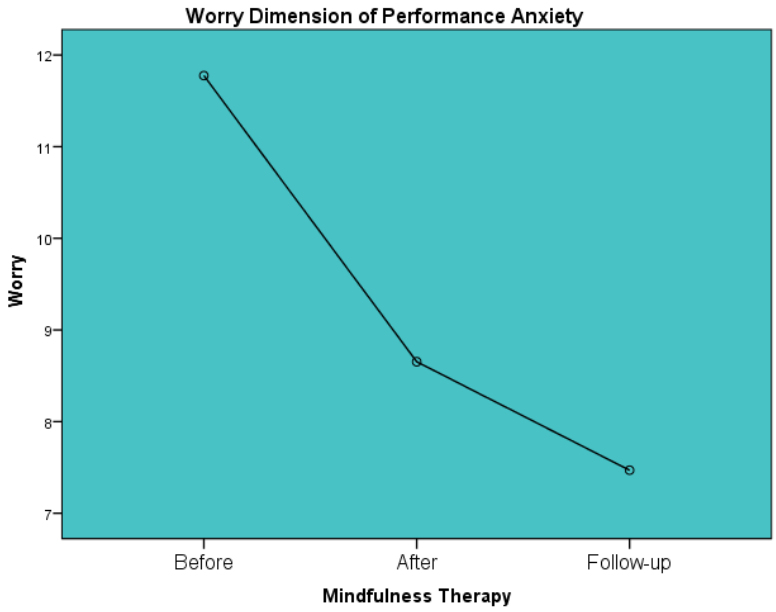


Figure 2 represents for worry which clearly indicates the gradual decrease in the performance anxiety among hockey players.

Table 11

Mean and Standard Deviation for Concentration Disruption dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Dimension	Phases	Mean	Standard Deviation
Concentration Disruption	**Before**	9.04	2.53
	After	8.61	2.26
	Follow-up	6.98	1.36

Table 11 exhibits the mean and standard deviation scores of the hockey players during before, after and follow-up phases of mindfulness therapy on Concentration Disruption dimension of Performance anxiety. The scores clearly indicates that there was

higher level of distractions being experienced by the hockey players before the intervention programme and after intervention it was reduced to 8.61 and it further reduced in the follow-up phase. Hence, it becomes important to teach mindfulness therapy for the hockey players to manage their inappropriate or irrelevant distractions during the sports practice and learn to accomplish their goals without external distractions that comes in the way of performance.

Table 12

Repeated Measures ANOVA for Concentration Disruption Dimension of Performance Anxiety during Before, After and Follow-up Phases of Mindfulness Therapy among Hockey Players

N = 49

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	115.932	2	57.966	13.81**
Greenhouse Geisser	115.932	1.92	60.259	13.81**
Huynh-Feldt	115.932	2.00	57.966	13.81**
Lower-bound	115.932	1.00	115.932	13.81**

***** = Significant at 0.01 level***

Table 12 depicts the results of Repeated Measures ANOVA for concentration disruption dimension of performance anxiety during before, after and follow-up phases of intervention among hockey players. Mindfulness intervention really helps in managing distractions and enriches to focus on determined performance. The results also proved that mindfulness-based interventions seem to be appropriate for the reduction of disruptions related to the sports events of hockey players. Hence the hypothesis **"There will be significant differences for Concentration Disruption Dimension of Performance Anxiety during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players"** is accepted.

Table 13

Bonferroni Post-hoc Analysis for Concentration Disruption dimension of Performance Anxiety during before, after and follow-up phases of mindfulness among Hockey Players

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Concentration Disruption	Before	After	0.42	0.39^{NS}
		Follow-up	2.06*	0.45
	After	Before	-0.42	0.39^{NS}
		Follow-up	1.63*	0.39
	Follow-up	Before	-2.06*	0.45
		After	-1.63*	0.39

**** = Significant at 0.05 level*** ***NS = Not Significant***

Table 13 illustrates the Bonferroni post-hoc analysis for concentration disruption dimension of performance anxiety in before, after and follow-up phases of mindfulness therapy. The pair wise comparison analysis was carried out to identify the differences between pairs of mean. The mean difference between after and follow-up, follow-up and before, and follow-up and after mindfulness therapy was statistically significant. Therefore, it can be concluded that the administration of the intervention had moderate effect in managing their external disturbances during the play. There is a graphical representation (Fig.3) for concentration disruption which clearly indicates the gradual decrease in the performance anxiety among hockey players.

Figure 3

Concentration disruption dimension of performance anxiety during before, after and follow-up phases of mindfulness therapy among hockey players

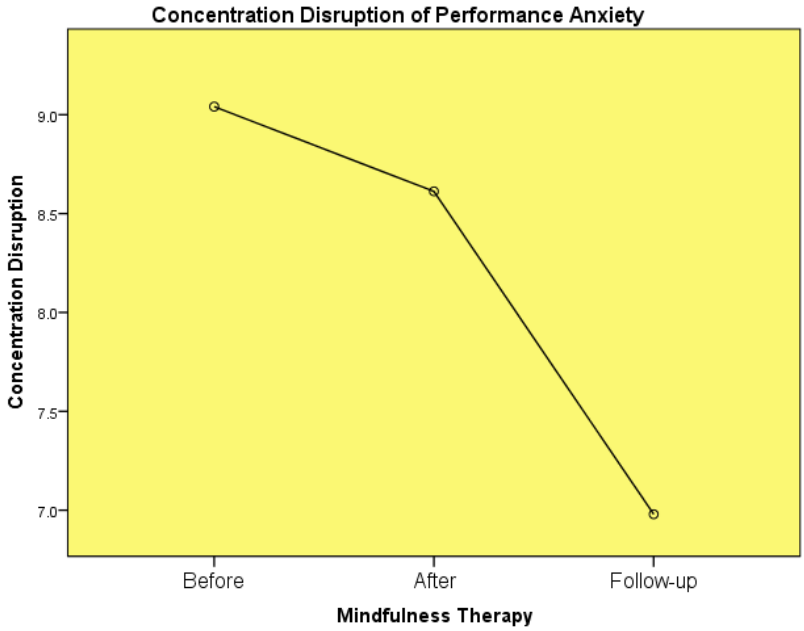


Table 14

Mean and Standard Deviation for Performance Anxiety of Hockey Players during before, after and follow-up phases of Mindfulness Therapy among hockey players

N = 49

Variable	Phases	Mean	Standard Deviation
Performance Anxiety	**Before**	30.47	5.39
	After	25.24	5.72
	Follow-up	21.57	2.17

Table 14 presents the mean and standard deviation scores of hockey players during before, after and follow-up phases of mindfulness therapy in Performance Anxiety. The scores indicate that there was higher performance anxiety found in the hockey players before the intervention programme (30.47) and it reduced to 25.24 after intervention and

further reduced to 21.57 in the follow-up phase of intervention. Hence it becomes even more necessary to teach mindfulness therapy for the hockey players to manage their worries, tension and disturbed concentration which in turn increases their attention and focus of performance.

Table 15

Repeated Measures ANOVA for Performance Anxiety of Hockey Players during Before, After and Follow-up Phases of Mindfulness Therapy among Hockey Players

N = 49

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	1959.401	2	979.701	46.93**
Greenhouse Geisser	1959.401	1.95	1001.279	46.93**
Huynh-Feldt	1959.401	2.00	979.701	46.93**
Lower-bound	1959.401	1.00	1959.401	46.93**

***** = Significant at 0.01 level***

Table 15 depicts the results of Repeated Measures ANOVA for performance anxiety during before, after and follow-up phases of intervention among hockey players. Mindfulness intervention certainly aids in managing worries and distractions The results also proved that mindfulness-based interventions seem to be appropriate for the reduction of disruptions related to the sports events of hockey players. Thus, the hypothesis **"There will be significant differences during before, after and follow-up phases of mindfulness therapy in performance anxiety among hockey players"** is accepted.

Table 16

Bonferroni post-hoc analysis for Performance Anxiety during before, after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

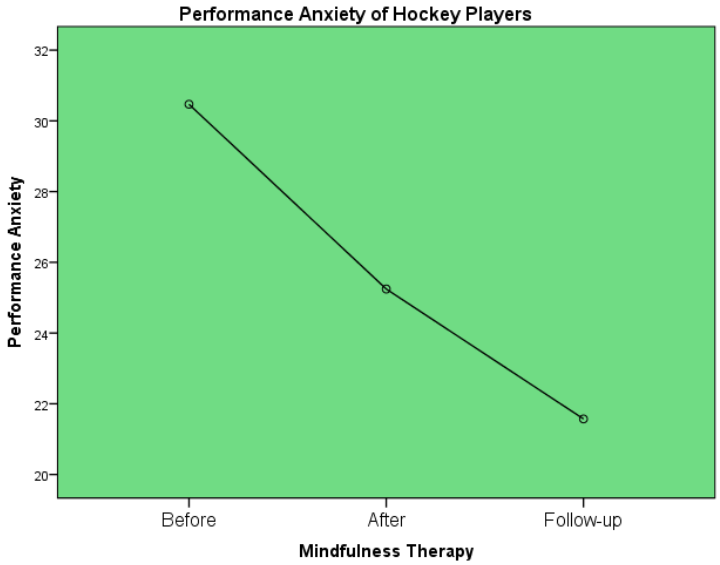
Variable	Condition	Phase	Mean Difference	Standard Error
Performance Anxiety	**Before**	**After**	5.22*	0.96
		Follow-up	8.89*	0.85
	After	**Before**	-5.22*	0.96
		Follow-up	3.67*	0.94
	Follow-up	**Before**	-8.89*	0.85
		After	-3.67*	0.94

**** = Significant at 0.05 level***

Table 16 illustrates the Bonferroni post-hoc analysis for performance anxiety during before, after and follow-up phases of mindfulness therapy. The pair wise comparison analysis was carried out to identify the differences between pairs of mean. The mean difference between before and after mindfulness therapy was 5.22, before and follow-up phase was 8.89 which are statistically significant. The mean difference for follow-up and before phases and follow-up and after phases was also not significant. Therefore, it can be concluded that the administration of the intervention had little or no effect in managing the concentration of hockey players as they found to be stable for external disturbances. There is a graphical representation (Fig. 4) for performance anxiety which clearly indicates the gradual decrease in level of performance anxiety among hockey players.

Figure 4

Performance anxiety during before, after and follow-up phases of mindfulness therapy among hockey players



Section IV

This section displays the results of the Mean and Standard Deviation, Repeated Measures ANOVA, Post-hoc Pairwise comparison during Before, After and Follow-up phases to find out effectiveness of the Intervention and enhancement of self-efficacy among Hockey players.

Table 17

Mean and Standard Deviation for Self-efficacy during before, after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Variable	Phases	Mean	Standard Deviation
Self-efficacy	**Before**	30.29	4.36
	After	32.51	4.83
	Follow-up	33.12	5.22

Table 17 analyses the mean and standard deviation scores of hockey players during before, after and follow-up phases of mindfulness therapy in self-efficacy. The scores indicates that the mean before the intervention programme was 30.29 and it increased to 32.51 after intervention and further became 33.12 in the follow-up phase of intervention.

Table 18

Repeated Measures ANOVA for Self-efficacy of Hockey Players during before, after and follow-up phases of Mindfulness Therapy

N = 49

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	218.381	2	109.190	4.80*
Greenhouse Geisser	218.381	1.92	113.302	4.80*
Huynh-Feldt	218.381	2.00	109.190	4.80*
Lower-bound	218.381	1.00	218.381	4.80*

**** = Significant at 0.05 level***

Table 18 displays the results of Repeated measures ANOVA for self-efficacy during before, after and follow-up phases of mindfulness intervention among hockey players. Mindfulness training is helpful to reduce problems such as pain, worries, stress, anxiety, distractions etc. The mindfulness-based interventions attribute in reducing performance anxiety with respect to somatic, worries and concentration disruptions and increase in self-efficacy of hockey players. This intervention programme seems to be appropriate for enhancing self-efficacy in hockey players. Hence the overall results prove that it is very much important to train the hockey players in mindfulness therapy to manage somatic, worries and concentration disturbances for their performance. Thus, the Hypothesis **"There will be significant differences in self-efficacy during before, after and follow-up phases of mindfulness therapy among hockey players"** is accepted.

Table 19

Bonferroni post-hoc analysis for self-efficacy of Hockey Players during before, after and follow-up phases of Mindfulness Therapy

N = 49

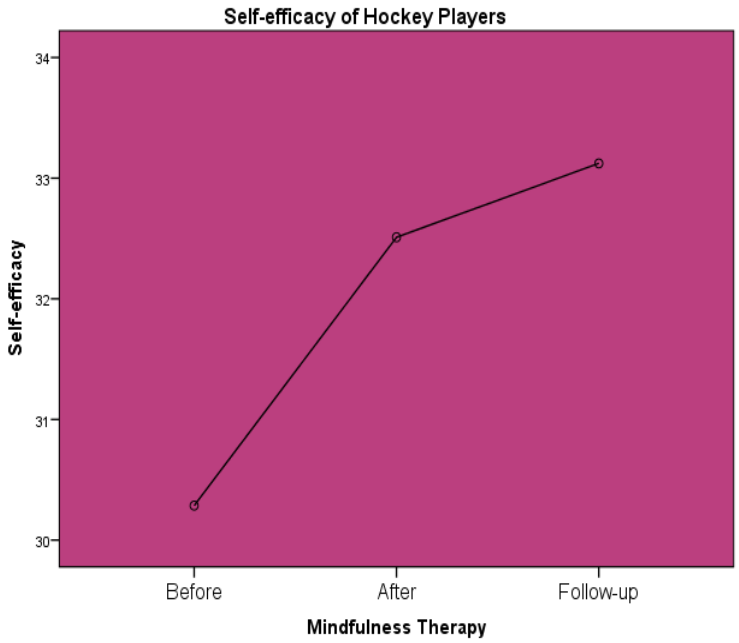
Dimension	Condition	Phase	Mean Difference	Standard Error
Self-efficacy	**Before**	**After**	-2.22*	0.87
		Follow-up	-2.83*	1.03
	After	**Before**	2.22*	0.87
		Follow-up	-0.61	0.97^{NS}
	Follow-up	**Before**	2.83*	1.03
		After	0.61	0.97^{NS}

* = ***Significant at 0.05 level*** ***NS = Not Significant***

Table 19 illustrates the Bonferroni post-hoc analysis for self-efficacy during before, after and follow-up phases of mindfulness therapy. Based on the significant increase in the level of self-efficacy, the pairwise comparison analysis was carried out to identify the mean differences between the pairs. The mean difference between before-after and before-follow-up phase of mindfulness therapy was statistically significant. The mean difference before and after, before and follow-up phase was significant but after and follow-up it was not significant. Therefore, it can be understood that the administration of the intervention was effective in improving the level of self-efficacy of the hockey players. There is a graphical representation (Fig. 5) for self-efficacy which clearly indicates the gradual increase in the level of self-efficacy among hockey players.

Figure 5

Self-efficacy during before, after and follow-up phases of mindfulness therapy



Section V

This section reveals the Mean, Standard Deviation, Repeated Measures ANOVA and Post-hoc Pairwise comparison during Before, After and Follow-up phases to find out the effectiveness of the Mindfulness Intervention among Hockey Players.

Table 20

Mean and Standard Deviation for Observing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Variable	Phases	Mean	Standard Deviation
Observing	**Before**	9.67	3.48
	After	11.04	2.70
	Follow-up	11.20	2.62

Table 20 analyses the mean and Standard Deviation scores for Observing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy of the hockey players. The scores indicate that hockey players were sensitive to what they see, feel and perceive around them and were able to select the stimuli requiring attention and focus. This clearly shows that there was increase in the observing ability found in the hockey players after the intervention programme. Hence on the overall results prove that it is very much important to train the hockey players in mindfulness therapy to manage their ability in observation to improve their performance in the play.

Table 21

Repeated Measures ANOVA for Observing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy

N = 49

Phases	**Sum of squares**	**df**	**Mean Square**	**F**
Sphericity Assumed	69.238	2	34.619	4.07*
Greenhouse Geisser	69.238	1.89	36.543	4.07*
Huynh-Feldt	69.238	1.97	35.141	4.07*
Lower-bound	69.238	1.00	69.238	4.07*

* = ***Significant at 0.05 level***

Table 21 displays the results of Repeated measures ANOVA for Observing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. Intervention programme proves to be helpful in reducing problems such as pain, worries, stress, anxiety, distractions etc. The mindfulness-based interventions attribute in reducing performance anxiety with respect to somatic, worries and concentration disruptions. This form of intervention programme seems to be appropriate for managing their anxiety and worries. Hence the hypothesis **"There will be significant differences in Observing dimension of Mindfulness during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players"** is accepted.

Table 22

Bonferroni post-hoc analysis for Observing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Observing	Before	After	-1.36	0.63^{NS}
		Follow-up	1.53*	0.61
	After	Before	1.36	0.63^{NS}
		Follow-up	-0.16	0.51^{NS}
	Follow-up	Before	-1.53*	0.61
		After	1.16	0.51^{NS}

**** = Significant at 0.05 level*** ***NS = Not Significant***

Table 22 illustrates the Bonferroni post-hoc analysis for Observing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. The pairwise comparison analysis was carried out to identify the mean differences between the pairs. The mean difference between before and follow-up phase of mindfulness therapy was statistically significant but before and after, after and follow-up phases was not significant. Therefore, it can be understood that the administration of the intervention was effective in enhancing the observing dimension of Five Facet Mindfulness of the hockey players. There is a graphical representation (Fig. 6) for observing dimension of mindfulness which clearly indicates the gradual increase in the level of observing ability among hockey players.

Figure 6

Observation dimension of mindfulness scale during before, after and follow-up phases of mindfulness

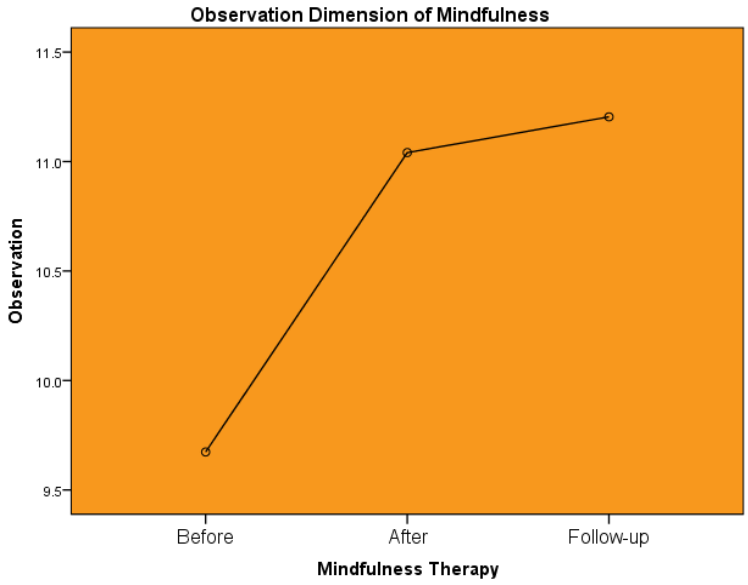


Table 23

Mean and Standard Deviation of Hockey Players in Describing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy

N = 49

Variable	Phases	Mean	Standard Deviation
Describing	**Before**	9.63	1.60
	After	10.06	2.33
	Follow-up	10.02	1.78

Table 23 depicts the mean and standard deviation scores for Describing dimension of five facet mindfulness questionnaire during before after and follow-up phases of mindfulness therapy of hockey players. The scores indicates that hockey players scored 9.63 on describing dimension before the intervention programme and it increased to 10.06 after the intervention and it maintained in the follow-up phase and it shows that there was incredibly good change in their describing skills of their problems and issues during the

difficult situation of the game. Hence on the overall the results prove that it is very much important to train the hockey players in mindfulness therapy to manage somatic, worries and concentration disturbances to improve their performance.

Table 24

Repeated Measures ANOVA for Describing dimension of five facet mindfulness questionnaire during before, after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	5.483	2	2.741	0.65^{NS}
Greenhouse Geisser	5.483	1.67	3.277	0.65^{NS}
Huynh-Feldt	5.483	1.72	3.176	0.65^{NS}
Lower-bound	5.483	1.00	5.483	0.65^{NS}

Table 24 displays the results of Repeated Measures ANOVA for Describing dimension of five facet mindfulness questionnaire during before, after and follow-up phases of mindfulness therapy. Mindfulness training programme is being well equipped in handling physical as well as mental health issues of the hockey players. But the hypothesis **"There will be significant differences in Describing dimension of Mindfulness during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players"** is rejected.

Table 25

Bonferroni post-hoc analysis for Describing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy among hockey players

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Describing	**Before**	**After**	-0.42	0.44 ^{NS}
		Follow-up	-0.38	0.31 ^{NS}
	After	**Before**	0.42	0.44 ^{NS}
		Follow-up	0.41	0.46 ^{NS}
	Follow-up	**Before**	0.38	0.31 ^{NS}
		After	-0.41	0.44 ^{NS}

NS = Not Significant

Table 25 illustrates the Bonferroni post-hoc analysis for Describing dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. The pairwise comparison analysis was carried out to identify the mean differences between the pairs. The mean difference between before and after, before and follow-up, after and follow-up phases of mindfulness intervention was not significant. Therefore, it can be understood that the administration of the intervention was not so effective for hockey players on describing dimension of five facet mindfulness scale and which indirectly proves that the hockey players were not expressive in their words and was it was not easy to communicate their problems and issues to others during the difficult situations. There is a graphical representation (Fig. 7) for describing dimension of mindfulness specifies the ability of describing problems was significantly increased among hockey players.

Figure 7

Describing dimension of mindfulness scale during before, after and follow-up phases of mindfulness among hockey players

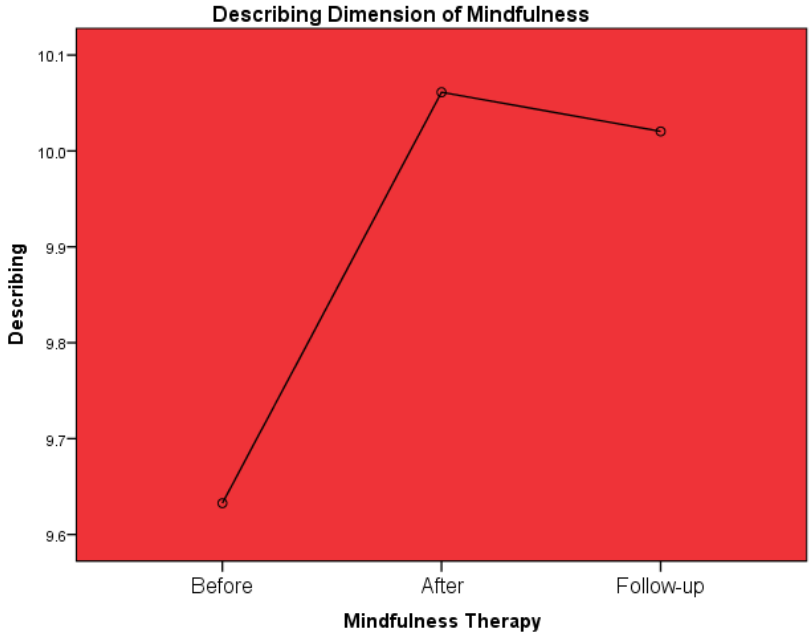


Table 26

Mean and Standard Deviation for Acting with Awareness dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Variable	Phases	Mean	Standard Deviation
Acting with Awareness	**Before**	9.88	1.85
	After	9.96	2.53
	Follow-up	11.24	2.68

Table 26 displays the mean and standard deviation scores for Acting with Awareness dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. The scores indicates that there was higher level of mindful actions were found on Acting with Awareness dimension of mindfulness scale. The mean score was 9.88 before intervention and increased 9.96 and further increased to

11.24 in the follow-up phase of intervention. Hence on the overall the results prove that it is very much important to train the hockey players in mindfulness therapy to create an awareness regarding their actions in daily life. Continuous and spontaneous practice of mindfulness therapy will definitely help in becoming more conscious and sensitive to their actions after the sports events.

Table 27

Repeated Measures ANOVA for Acting with Awareness dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Phases	**Sum of squares**	**df**	**Mean Square**	**F**
Sphericity Assumed	57.646	2	28.823	5.36**
Greenhouse Geisser	57.646	1.84	31.279	5.36**
Huynh-Feldt	57.646	1.91	30.132	5.36**
Lower-bound	57.646	1.00	57.646	5.36**

***** = Significant at 0.01 level***

Table 27 displays the results of Repeated measures ANOVA for Acting with Awareness dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness. The intervention training programme is well prepared for the betterment of physical as well as mental health issues of the hockey players. When there is any mental pressure or tension during the sports event players were able to cope with it by practicing the mindful actions. This form of intervention programme seems to be appropriate for managing performance anxiety and enhancing self-efficacy in hockey players. Hence the hypothesis **"There will be significant differences in Acting with Awareness dimension of Mindfulness during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players"** is accepted.

Table 28

Bonferroni post-hoc analysis for Acting with Awareness dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Acting with Awareness	**Before**	**After**	-0.08	0.40 ^{NS}
		Follow-up	-1.36	0.46*
	After	**Before**	-0.08	0.40 ^{NS}
		Follow-up	-1.28	0.52 ^{NS}
	Follow-up	**Before**	1.36	0.46*
		After	1.28	0.52 ^{NS}

* = ***Significant at 0.05 level*** ***NS = Not Significant***

Table 28 illustrates the Bonferroni post-hoc analysis for Acting with Awareness dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. The pairwise comparison analysis was carried out to identify the mean differences between the pairs. The mean difference between before and after, after and follow-up phases of mindfulness intervention was not significant. The mean difference between before and follow-up phases was significant due to mindfulness therapy Therefore, it can be understood that the administration of the intervention was not so effective for hockey players on Acting with awareness dimension of five facet mindfulness scale. The intervention proves that the hockey players were less mindful for actions and they were not much aware for their external factors during the sports events. There is a graphical representation (Fig. 8) for acting with awareness dimension of mindfulness agrees to specify that there was increase in the ability of the hockey players to act with conscious awareness during the sports performances.

Figure 8

Acting with Awareness dimension of mindfulness scale during before, after and follow-up phases of mindfulness

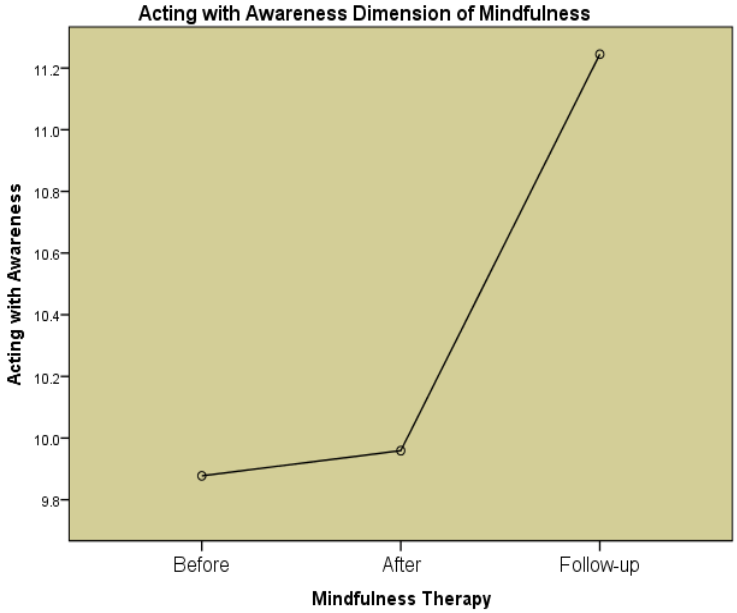


Table 29

Mean and Standard Deviation for Non-judgemental dimension of Five Facet Mindfulness Questionnaire during before after and follow-up phases of Mindfulness Therapy among Hockey Players

N = 49

Variable	Phases	Mean	Standard Deviation
Non-Judgmental	**Before**	7.49	1.95
	After	7.55	3.39
	Follow-up	10.29	3.05

Table 29 depicts the mean and standard deviation scores of hockey players for non-judgemental dimension of Five Facet Mindfulness Questionnaire during before after and follow-up phases of Mindfulness Therapy. The scores indicate gradual rise found on non-judgemental dimension of mindfulness scale from before intervention to follow-up phases

of the intervention. The mean score was 7.49 before intervention and increased to 7.55 after intervention and further improved to 10.29 in the follow-up phase of intervention. Hence on the overall the results prove that it is very much important to train the hockey players in mindfulness therapy to create an awareness regarding their thoughts and actions in daily life. Continuous and spontaneous practice of mindfulness therapy will definitely assist the upcoming sports events.

Table 30

Repeated Measures ANOVA for Non-judgemental dimension of Five Facet Mindfulness Questionnaires during before, after and follow-up phases of Mindfulness Therapy among hockey players

N = 49

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	249.891	2	124.946	16.16**
Greenhouse Geisser	249.891	1.84	135.738	16.16**
Huynh-Feldt	249.891	1.91	130.767	16.16**
Lower-bound	249.891	1.00	249.891	16.16**

** = ***Significant at 0.01 level***

Table 30 displays the results of Repeated measures ANOVA for non-judgemental dimension of Five Facet Mindfulness Questionnaires during before, after and follow-up phases of Mindfulness Therapy. The intervention training programme is well prepared for the betterment of good mental health issues of the hockey players. When there is any mental pressure or tension during the sports event players were able to cope with it by practicing the mindful actions. This form of intervention programme seems to be appropriate for enhancing non-judgemental dimensions among hockey players. Hence the hypothesis **"There will be significant differences in non-judging dimension of Mindfulness during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players"** is accepted.

Table 31

Bonferroni post-hoc analysis of non-judgemental dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Non-Judgmental	**Before**	**After**	-0.06	0.56 ^{NS}
		Follow-up	-2.79	0.48*
	After	**Before**	0.06	0.56 ^{NS}
		Follow-up	-2.73	0.62*
	Follow-up	**Before**	2.79	0.48*
		After	2.73	0.62*

** = **Significant at 0.05 level*** ***NS = Not Significant***

Table 31 illustrates the Bonferroni post-hoc analysis for non-judgemental dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. The pairwise comparison analysis was carried out to identify the mean differences between before and after was not significant but after and follow-up, before and follow-up phases of mindfulness intervention was found to be significant. It clearly implies that the intervention was effective for hockey players in non-judgemental dimension. There is a graphical representation (Fig. 9) for nonjudgemental dimension of mindfulness which proves that there was an increase in the ability of the hockey players to be non-judgemental about making decisions during the sports performances.

Figure 9

Non judgmental dimension of mindfulness during before, after and follow-up phases of mindfulness among hockey players

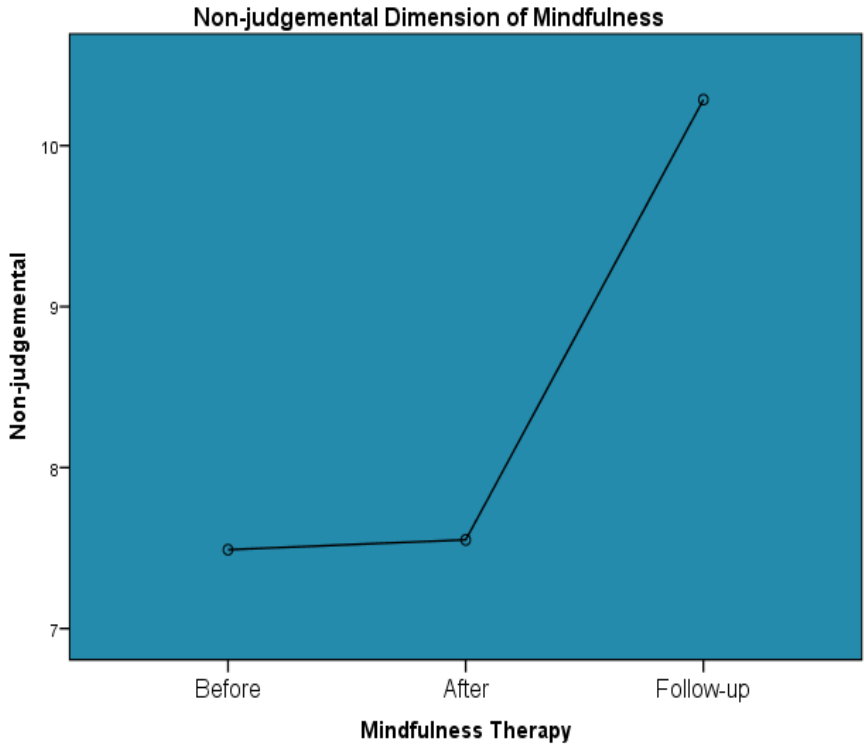


Table 32

Mean and Standard Deviation for Non-Reactivity dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy

N = 49

Variable	Phases	Mean	Standard Deviation
Non-Reactivity	**Before**	9.10	3.28
	After	9.63	1.71
	Follow-up	10.10	2.15

Table 32 shows the mean and standard deviation scores of hockey players for non-reactivity dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. The scores indicates that there was increase in

the level of non-reactivity of the hockey players from before to follow-up phases of the intervention programme. The mean score of 9.10 was before intervention and increased to 9.63 after intervention and further increase to10.10 in the follow-up phase of intervention. Hence on the overall the results prove that it is very much important to train the hockey players in mindfulness therapy to be less reactive to situations.

Table 33

Repeated Measures ANOVA for Non-reactivity dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy

N = 49

Phases	**Sum of squares**	**df**	**Mean Square**	**F**
Sphericity Assumed	24.531	2	12.265	2.06*
Greenhouse Geisser	24.531	1.69	14.501	2.06*
Huynh-Feldt	24.531	1.74	14.043	2.06*
Lower-bound	24.531	1.00	24.531	2.06*

Table 33 displays Repeated measures ANOVA for non-reactivity dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. The intervention training programme assisted the hockey players in addressing their physical as well as mental health issues. When there is any mental pressure or tension during the sports event players were able to cope with it by practicing the mindful thoughts help them to be non-reactive to the conflicting situations. Hence the hypothesis **"There will be significant differences for non reactivity dimension of Mindfulness during Before, After and Follow-up phases of Mindfulness Therapy among Hockey Players"** is accepted.

Table 34

Bonferroni post-hoc analysis for non-reactivity dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness among Hockey Players

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Non-Reactivity	**Before**	**After**	0.53	0.56 ^{NS}
		Follow-up	-1.00	0.51 ^{NS}
	After	**Before**	-0.53	0.56 ^{NS}
		Follow-up	-0.46	0.37 ^{NS}
	Follow-up	**Before**	1.00	0.51 ^{NS}
		After	0.46	0.37 ^{NS}

NS = Not Significant

Table 34 illustrates the Bonferroni post-hoc analysis for non-reactivity dimension of Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness. The pairwise comparison analysis was carried out to identify the mean differences between before and after, after and follow-up, before and follow-up phases of mindfulness intervention was found to be not significant. Therefore, it can be reiterating that the intervention was effective for hockey players on non-judgemental dimension. The graphical representation (Fig. 10) for non-reactivity dimension of mindfulness states that there was increase in the ability of the hockey players to be less reactive to the situations and incidences during the sports performances.

Figure 10

Non reactivity dimension of mindfulness during before, after and follow-up phases of mindfulness among hockey players

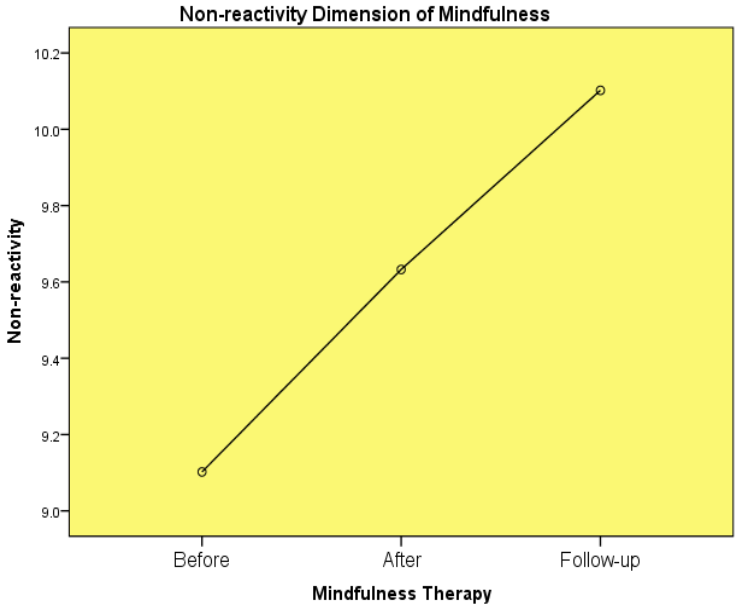


Table 35

Mean and Standard Deviation of Hockey Players during before, after and follow-up phases of Mindfulness

N = 49

Variable	Phases	Mean	Standard Deviation
Mindfulness	**Before**	37.12	5.50
	After	37.57	4.30
	Follow-up	40.27	4.48

Table 35 indicates the level of Mindfulness of Hockey Players during before, after and follow-up phases of mindfulness therapy. The mean score of 37.12 specifies that there was lower level of mindfulness found in the hockey players before the intervention and after the mindfulness therapy on regular basis, the level of mindfulness score gradually increased to 37.57 after the intervention and it further increased to 40.27. Henceforth, the

results proved that mindfulness intervention programme becomes much important to train the hockey players in enhancing their mindfulness.

Table 36

Repeated Measures ANOVA of the Hockey Players during before, after and follow-up phases of Mindfulness

N = 49

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	283.156	2	141.578	6.17**
Greenhouse Geisser	283.156	1.97	143.721	6.17**
Huynh-Feldt	283.156	2.00	141.578	6.17**
Lower-bound	283.156	1.00	283.156	6.17**

***** = Significant at 0.01 level***

Table 36 displays Repeated Measures ANOVA for Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness. The intervention training programme assisted the hockey players in addressing their physical as well as mental health issues. When there is any mental pressure or tension during the sports event players were able to handle better with the practice of mindfulness therapy. Apparently, the intervention programme has really increased their level of mindfulness. After the intervention programme hockey players were found to be 'good observers', 'great describers', 'aware of their actions', 'being non-judgemental to inner experience's and 'non-reactive' to inner experiences of thought processes. Thus, the Hypothesis **"There will be significant differences in mindfulness during before, after and follow-up phases of mindfulness therapy among hockey players"** is accepted.

Table 37

Bonferroni post-hoc analysis of the Hockey Players during before, after and follow-up phases of Mindfulness Therapy

N = 49

Dimension	Condition	Phase	Mean Difference	Standard Error
Mindfulness	**Before**	**After**	-0.44	0.94^{NS}
		Follow-up	-3.14*	1.02
	After	**Before**	-0.44	0.94^{NS}
		Follow-up	-2.69*	1.92
	Follow-up	**Before**	3.14*	1.02
		After	2.69*	0.92

* = ***Significant at 0.05 level*** ***N. S. = Not Significant***

Table 37 illustrates the Bonferroni post-hoc analysis of hockey players on Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness Therapy. The pairwise comparison analysis was carried out to identify the mean differences between before and after was not significant but before and follow-up, after and follow-up phases of mindfulness intervention was found to be significant. Therefore, the administration of the intervention was effective for hockey players. The graphical representation (Fig. 11) gives the clear indication of improvement seen in the hockey players during before after and follow-up phases of mindfulness.

Figure 11

Overall score of mindfulness during before, after and follow-up phases of mindfulness among hockey players

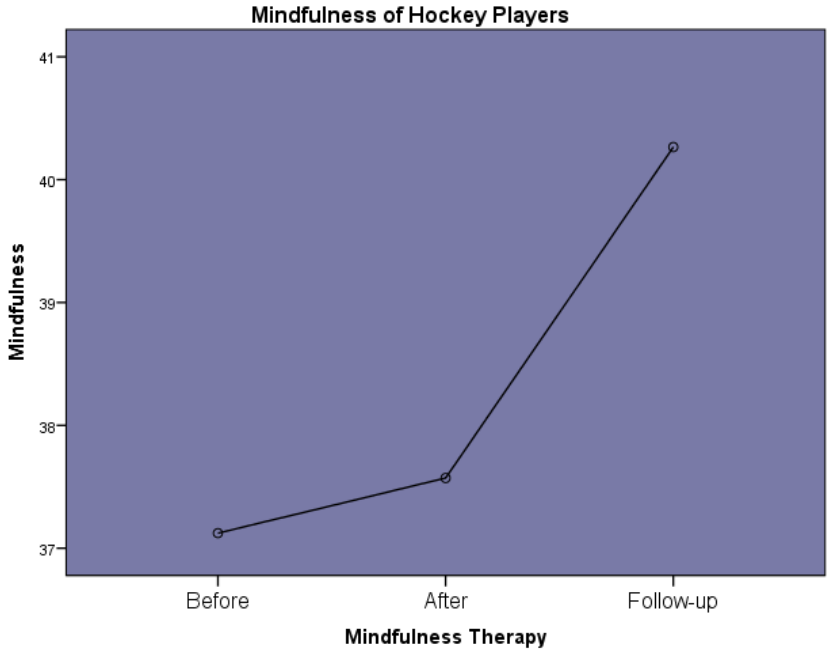


Table 38

Mean and Standard Deviation for Performance Anxiety of Male Hockey Players during before after and follow-up phases of Mindfulness Therapy

N = 49

Variable	Gender	Phases	Mean	Standard Deviation
Performance Anxiety	**Male**	**Before**	32.45	5.38
		After	28.07	5.61
		Follow-up	21.59	2.32

Table 38 analyses the mean and Standard Deviation scores of male hockey players during before, after and follow-up phases of mindfulness therapy in Performance Anxiety. The scores indicate that there was higher performance anxiety found in the hockey players

before intervention (32.45) it reduced after intervention (23.07) and further reduced in follow-up phase (21.59). Hence it becomes even more necessary to teach mindfulness therapy for the male hockey players to reduce their performance anxiety.

Table 39

Repeated Measures ANOVA for Performance Anxiety of Male Hockey Players during Before, After and Follow-up Phases of Mindfulness Therapy

N=29

Phases	Sum of Squares	df	Mean Square	F
Sphericity Assumed	1732.161	2	866.080	33.69**
Greenhouse Geisser	1732.161	1.834	944.472	33.69**
Huynh-Feldt	1732.161	1.956	885.471	33.69**
Lower-bound	1732.161	1.000	1732.161	33.69**

Table 39 depicts the results of Repeated Measures ANOVA for performance anxiety during before, after and follow-up phases of intervention among male hockey players. Mindfulness intervention certainly aids in managing worries and distractions. The results also proved that mindfulness-based interventions seem to be appropriate for the reduction of disruptions related to the sports events of male hockey players. Thus, the Hypothesis **"There will be significant differences in performance anxiety during before, after and follow-up phases of mindfulness therapy among male hockey players"** is accepted.

Section VI

This section reveals the results of the Mean and Standard Deviation, Repeated Measures ANOVA, Post-hoc Pairwise comparison during Before, After and Follow-up phases to find out the Effectiveness of the mindfulness among male and female hockey players.

Table 40

Bonferroni post-hoc analysis for Performance Anxiety of Male Hockey Players during before after and follow-up phases of Mindfulness Therapy

N=29

Variable	Gender	Condition	Phase	Mean Difference	Standard Error
Performance Anxiety	**Male**	**Before**	**After**	4.37*	1.51
			Follow-up	10.86*	1.18
		After	**Before**	-4.37*	1.51
			Follow-up	6.48*	1.27
		Follow-up	**Before**	-10.86*	1.18
			After	-6.48*	1.27

**** = Significant at 0.05 level***

Table 40 illustrates the Bonferroni post-hoc analysis for worry dimension of performance anxiety in before, after and follow-up phases of male mindfulness therapy. The pair wise comparison analysis was carried out to identify the differences between before and after mindfulness therapy (4.37), before and follow-up phase (10.86) which were statistically significant. There is a graphical representation (Fig. 12) for performance anxiety which clearly indicates the gradual decrease in level of performance anxiety among male hockey players.

Figure 12

Performance anxiety of male hockey players during before, after and follow-up phases of mindfulness therapy

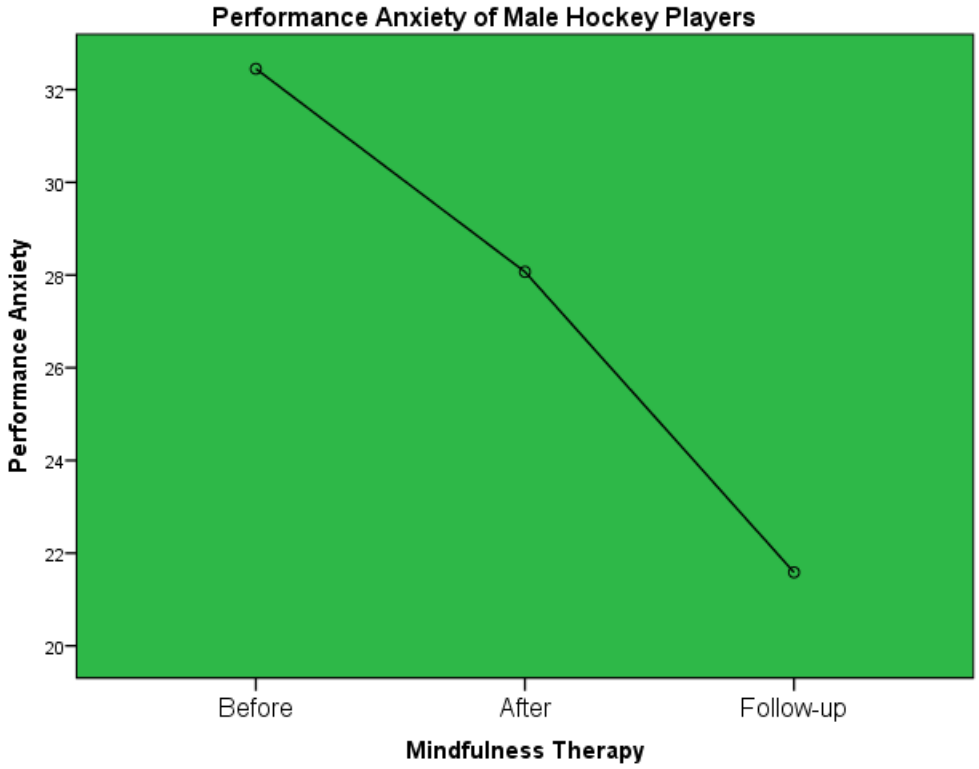


Table 41

Mean and Standard Deviation for self-efficacy of Male Hockey Players during before, after and follow-up phases of Mindfulness Therapy

N = 29

Variable	Gender	Phases	Mean	Standard Deviation
Self-efficacy	**Male**	**Before**	29.14	4.24
		After	31.83	3.98
		Follow-up	34.41	5.27

Table 41 analyses the mean and standard deviation scores of male hockey players during before, after and follow-up phases of mindfulness therapy in self-efficacy. The scores indicated that the hockey players had low self-efficacy before the intervention programme (29.14) and it increased to 31.83 after intervention and further increased to 34.41 in the follow-up phase. Hence it becomes even more necessary to teach mindfulness therapy for the hockey players to manage to enhance their level of self-efficacy and focus on their performance.

Table 42

Repeated Measures ANOVA for Self-efficacy of Male Hockey Players during Before, After and Follow-up Phases of Mindfulness Therapy

N=29

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	403.655	2	201.828	11.73**
Greenhouse Geisser	403.655	1.668	241.977	11.73**
Huynh-Feldt	403.655	1.761	229.189	11.73**
Lower-bound	403.655	1.000	403.655	11.73**

***** = Significant at 0.01 level***

Table 42 depicts the results of Repeated Measures ANOVA for self-efficacy during before, after and follow-up phases of intervention among hockey players. Mindfulness intervention certainly aids in managing worries and concentrating one's belief of values and their abilities. The results also proved that mindfulness-based interventions seem to be appropriate for the enhancing the level of self-efficacy among male hockey players. Thus, the Hypothesis **"There will be significant differences in self-efficacy during before, after and follow-up phases of mindfulness therapy among male hockey players"** is accepted.

Table 43

Bonferroni post-hoc analysis for Self-efficacy of Male Hockey Players during before, after and follow-up phases of Mindfulness Therapy

N=29

Variable	Gender	Condition	Phase	Mean Difference	Standard Error
Self-efficacy	**Male**	**Before**	**After**	-2.69*	0.88
			Follow-up	-5.27*	1.29
		After	**Before**	2.69*	0.88
			Follow-up	-2.58	1.04^{NS}
		Follow-up	**Before**	5.27*	1.29
			After	2.58	1.04^{NS}

**** = Significant at 0.05 level*** ***NS = Not Significant***

Table 43 illustrates the Bonferroni post-hoc analysis for self-efficacy of male hockey players during before, after and follow-up phases of mindfulness therapy. The pair wise comparison analysis was carried out to identify the differences between before and after mindfulness therapy (-2.69), before and follow-up phase (-5.27) which are statistically significant. Therefore, it can be concluded that the administration of the intervention had effect in enhancing the level of self-efficacy of male hockey players as they found to be stable for external disturbances. There is a graphical representation (Fig. 13) for performance anxiety which clearly indicates the gradual increase in level of self-efficacy among male hockey players.

Figure 13

Self-efficacy of male hockey players during before, after and follow-up phases of mindfulness therapy

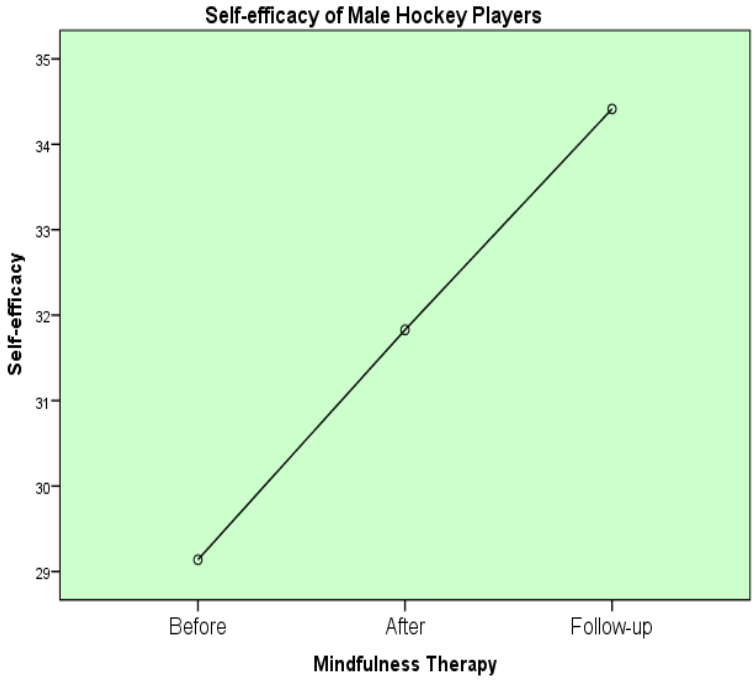


Table 44

Mean and Standard Deviation of Male Hockey Players during before, after and follow-up phases of Mindfulness

N=29

Variable	Gender	Phases	Mean	Standard Deviation
Mindfulness	**Male**	**Before**	35.86	5.61
		After	36.45	3.31
		Follow-up	40.72	5.25

Table 44 indicates the level of Mindfulness of Male Hockey Players during before, after and follow-up phases of mindfulness. The mean score before the intervention was 35.86 and it increased to 36.45 after the intervention and it further upsurge to 40.72 in the follow-up phase.

Table 45

Repeated Measures ANOVA of the Male Hockey Players during before, after and follow-up phases of Mindfulness

N=29

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	408.575	2	204.287	8.16**
Greenhouse Geisser	408.575	1.961	208.304	8.16**
Huynh-Feldt	408.575	2.000	204.287	8.16**
Lower-bound	408.575	1.000	408.575	8.16**

***** = Significant at 0.01 level***

Table 45 displays Repeated Measures ANOVA of the male hockey during before, after and follow-up phases of Mindfulness. The intervention training programme assisted the male hockey players in addressing their physical as well as mental health issues. When there is any mental pressure or tension during the sports event players were able to handle better with the practice of mindfulness therapy. Apparently, the intervention programme increased their level of mindfulness under various dimensions of Five Facet Mindfulness Questionnaire. After the intervention programme hockey players were found to be ‘good observers’, ‘great describers’, ‘aware of their actions’, ‘being non-judgemental to inner experience’s and ‘nonreactive’ to inner experiences of thought processes. Thus, the Hypothesis **“There will be significant differences in mindfulness during before, after and follow-up phases of mindfulness therapy among male hockey players”** is accepted.

Table 46

Bonferroni post-hoc analysis of the male hockey players during before, after and follow-up phases of Mindfulness

N=29

Dimension	Gender	Condition	Phase	Mean Difference	Standard Error
Mindfulness	Male	Before	After	- 0.58	1.29
			Follow-up	- 4.86*	1.39
		After	Before	0.58	1.29^{NS}
			Follow-up	- 4.27*	1.24
		Follow-up	Before	4.86*	1.39
			After	4.27*	1.24

* = ***Significant at 0.05 level*** ***NS = Not Significant***

Table 46 illustrates the Bonferroni post-hoc analysis of male hockey players on Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness. The pairwise comparison analysis was carried out to identify the mean differences between before and after was not significant but before and follow-up, after and follow-up phases of mindfulness therapy was found to be significant. The graphical representation (Fig. 14) gives the clear indication of improvement seen in the hockey players during before, after and follow-up phases of mindfulness.

Figure 14

Overall score of mindfulness during before, after and follow-up phases of mindful in male hockey players

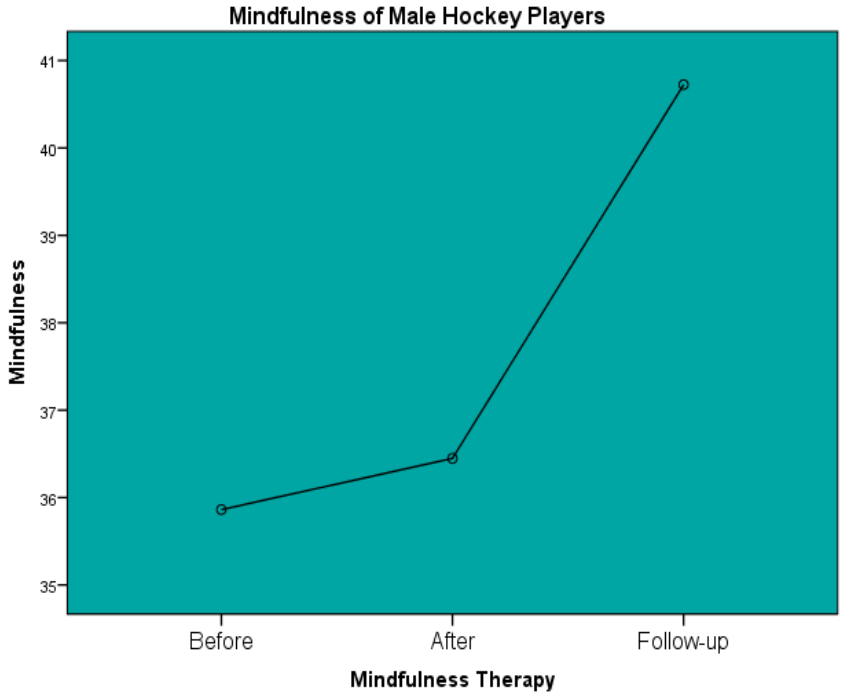


Table 47

Mean and Standard Deviation for Performance Anxiety of Female Hockey Players during before, after and follow-up phases of Mindfulness Therapy

N=20

Variable	Gender	Phases	Mean	Standard Deviation
Performance Anxiety	**Female**	**Before**	27.60	4.01
		After	21.15	2.58
		Follow-up	21.55	1.98

Table 47 analyses the mean and standard deviation scores of female hockey players during before, after and follow-up phases of mindfulness therapy in Performance Anxiety. The scores indicated that there was higher performance anxiety found in the

hockey players before the intervention programme 27.60 and it reduced to 21.15 after intervention and it almost maintained during the follow-up phase 21.55.

Table 48

Repeated Measures ANOVA for Performance Anxiety of Female Hockey Players during Before, After and Follow-up Phases of Mindfulness Therapy

N=20

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	522.433	2	261.217	36.91**
Greenhouse Geisser	522.433	1.974	264.610	36.91**
Huynh-Feldt	522.433	2.000	261.217	36.91**
Lower-bound	522.433	1.000	522.433	36.91**

***** = *Significant at 0.01 level***

Table 48 depicts the results of Repeated Measures ANOVA for performance anxiety during before, after and follow-up phases of intervention among female hockey players. Mindfulness intervention certainly aids in managing worries and distractions. The results also proved that mindfulness-based interventions seem to be appropriate for the reduction of performance anxiety related to the sports events of female hockey players. Thus, the Hypothesis **"There will be significant differences in performance anxiety during before, after and follow-up phases of mindfulness therapy among female hockey players"** is accepted.

Table 49

Bonferroni post-hoc analysis for Performance Anxiety of female Hockey Players during before after and follow-up phases of Mindfulness Therapy

N=20

Variable	Gender	Condition	Phase	Mean Difference	Standard Error
Performance Anxiety	**Female**	**Before**	**After**	6.45*	0.85
			Follow-up	6.05*	0.87
		After	**Before**	- 6.45*	0.85
			Follow-up	- 0.40	0.79^{NS}
		Follow-up	**Before**	- 6.05*	0.87
			After	0.40	0.79^{NS}

**** = Significant at 0.05 level*** ***NS = Not significant***

Table 49 illustrates the Bonferroni post-hoc analysis for performance anxiety of the female hockey players in before, after and follow-up phases of mindfulness therapy. The pair wise comparison analysis was carried out to identify the differences between before and after, before and follow-up, after and follow-up was statistically significant in reducing the performance anxiety of the female hockey players. There is a graphical representation (Fig. 15) for performance anxiety which clearly indicates that female hockey players had gradual decrease in level of performance anxiety.

Figure 15

Performance anxiety of female hockey players during before, after and follow-up phases of mindfulness therapy

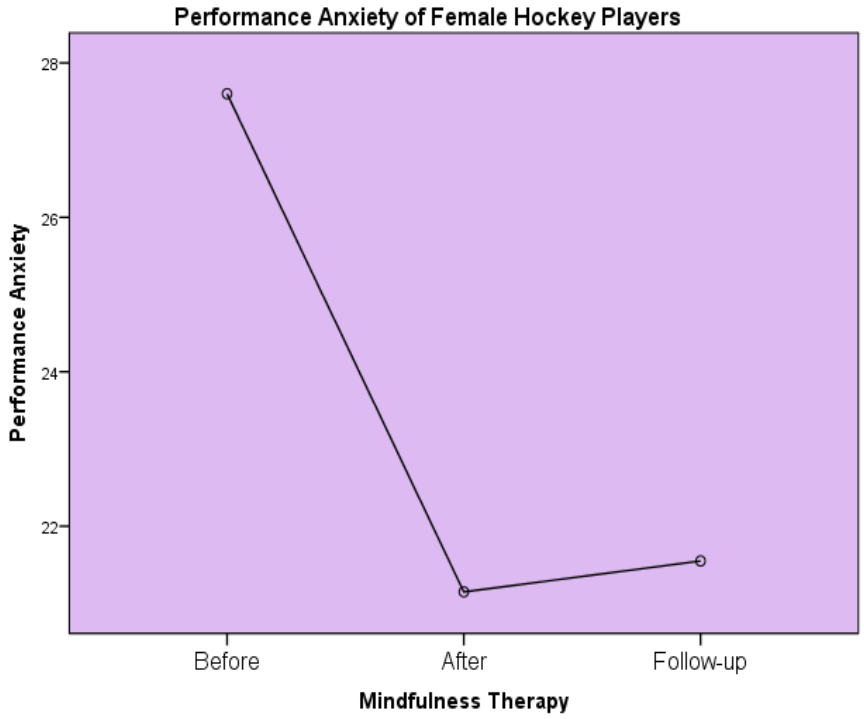


Table 50

Mean and Standard Deviation for Self-efficacy of Female Hockey Players during before after and follow-up phases of Mindfulness Therapy

N=20

Variable	Gender	Phases	Mean	Standard Deviation
Self-efficacy	**Female**	**Before**	31.95	4.08
		After	33.50	5.81
		Follow-up	31.25	4.66

Table 50 analyses the mean and Standard Deviation scores of female hockey players during before, after and follow-up phases of mindfulness therapy in self-efficacy. The scores indicate that the hockey players had low self-efficacy before the intervention (31.95) and it increased (33.50) after intervention and further slightly decreased (31.25) in the follow-up phase of intervention. Hence it becomes even more necessary to teach mindfulness therapy for the female hockey players to manage their worries, tension and disturbed concentration which in turn increases their level of self-efficacy and focus on their performance.

Table 51

Repeated Measures ANOVA for Self-efficacy of Female Hockey Players during Before, After and Follow-up Phases of Mindfulness Therapy

N=20

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	53.033	2	26.517	1.02^{NS}
Greenhouse Geisser	53.033	1.874	28.300	1.02^{NS}
Huynh-Feldt	53.033	2.000	26.517	1.02^{NS}
Lower-bound	53.033	1.000	53.033	1.02^{NS}

N.S. = Not Significant

Table 51 depicts the results of Repeated Measures ANOVA for self-efficacy during before, after and follow-up phases of intervention among female hockey players. The results also proved that mindfulness-based interventions seem to be not appropriate for the enhancing the level of self-efficacy of female hockey players. Thus, the Hypothesis **"There will be significant differences in self-efficacy during before, after and follow-up phases of mindfulness therapy among female hockey players"** is rejected.

Table 52

Bonferroni post-hoc analysis for Self-efficacy of Female Hockey Players during before, after and follow-up phases of Mindfulness Therapy

N=20

Variable	Gender	Condition	Phase	Mean Difference	Standard Error
Self-efficacy	**Female**	**Before**	**After**	-1.55	1.73*
			Follow-up	0.70	1.38*
		After	**Before**	1.55	1.73*
			Follow-up	2.25	1.68*
		Follow-up	**Before**	-0.70	1.38*
			After	-2.25	1.68*

**** = Significant at 0.05 level***

Table 52 illustrates the Bonferroni post-hoc analysis for Self-efficacy of female hockey players in before, after and follow-up phases of mindfulness therapy. The pair wise comparison analysis was carried out to find the differences between the before and after -1.55 before and follow-up phase (0.70), after and follow-up phases are statistically significant. Therefore, it can be concluded that the administration of the intervention had effect in enhancing the level of self-efficacy of female hockey players as they found to be stable for external disturbances. There is a graphical representation (Fig. 16) for performance anxiety which clearly indicates the gradual increase after the intervention and decrease in the follow-up in the level of self-efficacy among female hockey players.

Figure 16

Self-efficacy of female hockey players during before, after and follow-up phases of mindfulness therapy

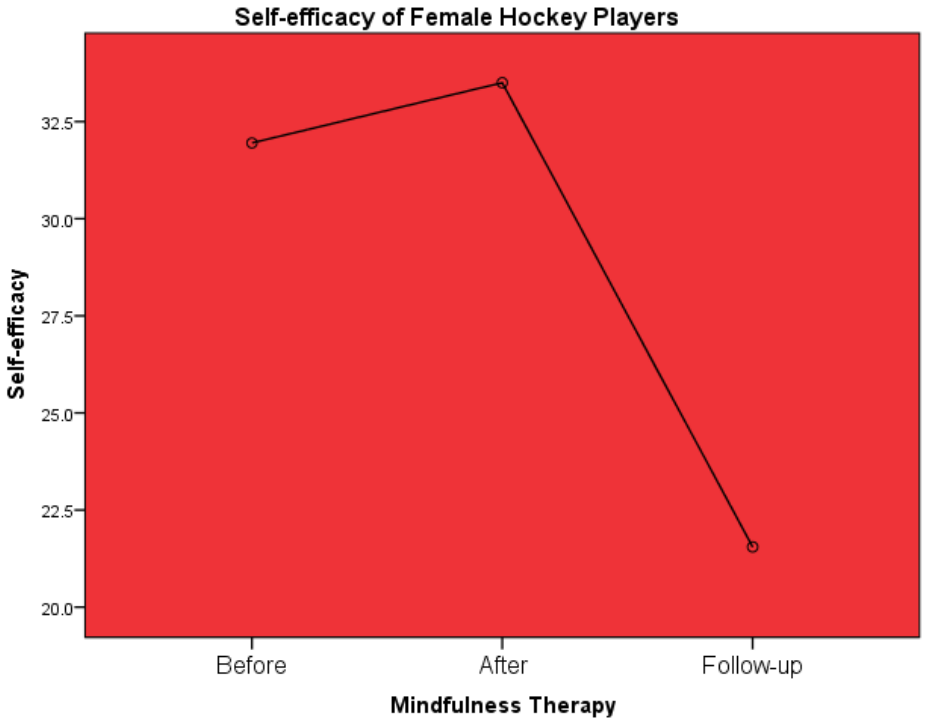


Table 53

Mean and Standard Deviation of Female Hockey Players during before, after and follow-up phases of Mindfulness

N=20

Variable	Gender	Phases	Mean	Standard Deviation
Mindfulness	**Female**	**Before**	38.95	4.91
		After	39.95	5.08
		Follow-up	39.60	3.06

Table 53 indicates the level of mindfulness of female hockey players during before, after and follow-up phases of mindfulness. The mean score of 38.95 specifies that there was lower level of mindfulness found in the hockey players before the intervention programme and it gradually increased to 39.95 after intervention and finally during the follow-up intervention programme there was a noticeable change in their behaviour shows it almost maintained in follow-up phase.

Table 54

Repeated Measures ANOVA of the Female Hockey Players during before, after and follow-up phases of Mindfulness

N=20

Phases	Sum of squares	df	Mean Square	F
Sphericity Assumed	4.300	2	2.150	0.12^{NS}
Greenhouse Geisser	4.300	1.970	2.183	0.12^{NS}
Huynh-Feldt	4.300	2.000	2.150	0.12^{NS}
Lower-bound	4.300	1.000	4.300	0.12^{NS}

Table 54 displays Repeated Measures ANOVA for Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness. The intervention training programme assisted the female hockey players in addressing their physical as well as mental health issues. The results show no significant differences during three phases of mindfulness therapy. When there is any mental pressure or tension during the sports event players were able to handle better with the practice of mindfulness therapy. Thus, the Hypothesis **"There will be significant differences in mindfulness during before, after and follow-up phases of mindfulness therapy among female hockey players"** is rejected.

Table 55

Bonferroni post-hoc analysis of the female Hockey Players during before, after and follow-up phases of Mindfulness

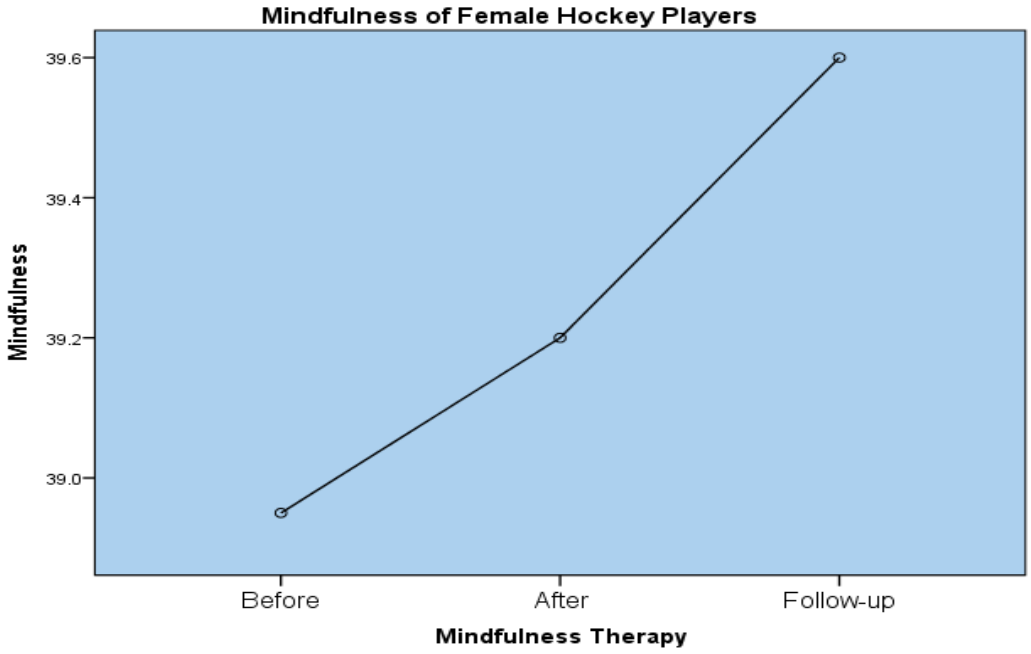
N=20

Dimension	Gender	Condition	Phase	Mean Difference	Standard Error
Mindfulness	**Female**	**Before**	**After**	-0.25	1.39^{NS}
			Follow-up	-0.65	1.32^{NS}
		After	**Before**	0.25	1.39^{NS}
			Follow-up	-0.40	1.25^{NS}
		Follow-up	**Before**	0.65	1.32^{NS}
			After	0.40	1.25^{NS}

Table 55 illustrates the Bonferroni post-hoc analysis of female hockey players on Five Facet Mindfulness Questionnaire during before, after and follow-up phases of Mindfulness. The pairwise comparison analysis was carried out to identify the mean differences between before and after, after and follow-up, before and follow-up phases was not significant. Therefore, it implies that the administration of the intervention was less effective for female hockey in mindfulness. The graphical representation (Fig. 17) gives the clear indication of improvement seen in the hockey players during before after and follow up phases of mindfulness.

Figure 17

Overall score of mindfulness during before, after and follow-up phases of mindfulness among female hockey players



Conclusion

The Percentage analysis of the Demographic Data shows that 90% of participants were within the age group of 18-19 years and whereas 10% of them were in the age group of 20-22 years; 59% were males and 31% were females; majority from urban (84%) and 16% residing in rural, 47% pre university, 51% graduates and 2% was pursuing post-graduation; majority belongs to Hindus (98%) and 2% belongs to Muslim; majority (80%) had 1 or 2 siblings and 20% had 3 or 4 siblings; 57% hockey players were below 53% and 47% had more than 4 family members; 52% belongs to nuclear family, 20% belongs to extended and 14% belongs to joint and single parent family.

Coefficient of Correlation to find out the relationship between performance anxiety with self-efficacy and mindfulness (r=-0.22, r=-0.18 and -0.12 respectively); however, it implies that as the level of performance anxiety increases, but the level of self-efficacy decreases and vice versa. The relationship between the variables was present but a small magnitude that it was not statistically significant because of small sample size.

Descriptive Statistics for gender difference in performance anxiety, self efficacy and mindfulness among hockey players. The mean difference in performance anxiety between male and female hockey players is 32.45 and female with 27.60 and it indicated that male players are under more pressure and tension during their performance, whereas female players are strong enough to ventilate their pressure and tensions by reducing their anxiety. In self-efficacy, male and female hockey players had a mean score of 29.14 and 31.95 indicated significant differences between male and female hockey players. This depicts that female players found to have more belief on themselves while playing the match whereas the male hockey players were not much sportive in believe in oneself. On mindfulness, male and female hockey players had a mean score of 36.45 and 39.20 indicating significant differences between male and female hockey players. The scores clearly specifies that female players tend be more mindful for internal as well as external experiences but male players were not much concerned to any of their experiences compared to female players. Thus, the overall results depicted that female hockey players proved to be more mindful in managing performance anxiety and enhancing self-efficacy towards the play compared to the male hockey players.

Repeated Measures of ANOVA, Post-hoc Pair wise comparison Before, After and Follow-up Phases of mindfulness intervention indicated a reduction in the performance anxiety, worries and distractions of the hockey players.

The pairwise comparison analysis during before, after and follow-up phases of mindfulness therapy of the hockey players had significant increase in the level of self-efficacy. Therefore, it infers that the administration of the intervention was effective and successful in raising the hockey players' degree of self-efficacy.

Repeated Measures ANOVA of the hockey players during before, after and follow-up phases of Mindfulness proves that the intervention training programme assisted the hockey players in addressing their physical as well as mental health issues. Seemingly, the intervention programme improved their level of mindfulness where the hockey players being ‘good observers’, ‘great describers’, ‘aware of their actions’, ‘being non judgemental to inner experience’s and ‘non reactive’ to cognitive developments, suggesting that the intrusion program increased their degree of mindfulness.

Repeated Measures ANOVA for performance anxiety during before, after and follow-up phases of intervention among male hockey players gives a great relief from anxious feelings and helps in managing worries and distractions. Mindfulness intervention definitely benefits in controlling their worries and concentrating one's belief of values and their abilities. The findings also demonstrated that mindfulness-based therapies are suitable for raising male hockey players' levels of self-efficacy. Players who used mindfulness therapy were better able to manage any mental stress or strain during the sporting action.

Repeated Measures ANOVA for performance anxiety during before, after and follow-up phases of intervention among female hockey players. The female hockey players were greatly assisted by the mindfulness intervention in managing their daily issues, anxieties, and diversions. The handling of internal concerns and stressful situations is undoubtedly aided by mindfulness interventions. Among female hockey players, mindfulness-based therapies seem to have little to no effect on raising self-efficacy. The female hockey players' scores during the mindfulness before, after, and follow-up phases did not show any improvement in terms of reducing their stress or mental strain throughout the sporting events. This suggests future research with an even larger sample size to look into the problem with female hockey players