"First they ignore you, then laugh at you, then they fight you, then you win." – Mahatma Gandhi

Chapter 6

RESULTS

6 RESULTS

6.1 Introduction

All measurement scales were used separately to indicate the impact. Each domain area under the scales was considered in context of Leadership model and calculated separately. Repeated Measures Analysis of Variance (ANOVA) have indicated that main effect of Integrated Yoga Module (IYM) and Physical Exercise intervention on variables is significant. As Mauchly's Test of Sphericity was not met, F statistics in Univariate Tests was used with Greenhouse-Geisser correction for analysis. Independent analysis of repeated measures in F statistics with 'Tests of Within-Subjects Effects' reveals following information on of each domain of Yoga group with Integrated Yoga Module (IYM) and PhyEx group with Physical Exercise. Following data analysis methods were used for study of each domain of each scale.

1. Descriptive Statistics – with Mean and SD of all four levels of measurements.
2. Repeated Measure analysis of Variance (RM-ANOVA)
    (a) Univariate Tests for Yoga Group
    (b) Univariate Tests for PhyEx group
3. Multivariate Test (Wilks Lamda – if relevant)
4. Cross tabulation for effect of Yoga
5. RM ANOVA graphical plots showing consecutive effect at each level of measurements.

6.2 Indian Transformational leadership

Indian Transformational leadership Questionnaire has 6 domains of Leadership. Each domain was analysed separately. Data Analysis was conducted using SPSS software. Descriptive analysis of Mean and Standard deviation [Table 4] has indicated that differential effects of Physical Exercise and Integrated Yoga Module. Yoga group has increased mean and reduced standard deviations indicating better effect of integrated Yoga module on leadership competencies.

6.2.1 Descriptive Analysis

Table 4: Descriptive Analysis showing Mean and SD values for ITL.

Domains of Leadership	Group	N=63	1st	30th	60th	90th	Total
Conviction in self	PhyEx	Mean	14.14	14.43	14.81	14.56	14.484
		SD	3.926	3.206	2.878	3.232	3.311
	Yoga	Mean	13.98	15.29	15.94	16.22	**15.357**
		SD	3.391	2.679	2.124	2.317	2.628
Non-traditional	PhyEx	Mean	14.19	14.38	14.52	14.70	14.448
		SD	3.975	3.240	2.810	3.145	3.293
	Yoga	Mean	14.14	14.41	14.60	14.68	**14.460**
		SD	2.934	2.407	2.159	2.263	2.441
Openness and nurturing	PhyEx	Mean	14.68	14.33	13.94	14.75	14.425
		SD	3.136	2.634	2.494	2.383	2.662
	Yoga	Mean	13.78	15.40	15.97	16.11	**15.313**
		SD	2.992	3.119	2.590	2.522	2.806
Performance oriented	PhyEx	Mean	14.14	14.02	14.37	14.19	14.179
		SD	3.340	3.490	3.259	2.950	3.260
and humane	Yoga	Mean	14.11	15.24	16.00	15.71	**15.266**
		SD	3.547	3.330	2.834	2.926	3.159
Personal Touch	PhyEx	Mean	14.81	15.37	15.48	15.32	15.242
		SD	3.560	3.018	2.799	3.141	3.129
	Yoga	Mean	14.54	15.73	15.33	16.25	**15.464**
		SD	2.895	2.350	1.992	2.207	2.361
Sensitive and	PhyEx	Mean	13.49	13.81	14.13	14.06	13.873
		SD	3.058	2.856	2.624	2.705	2.811
conscientious	Yoga	Mean	13.43	14.16	14.76	14.83	**14.294**
		SD	3.004	2.707	2.153	2.247	2.528

*PhyEx- Physical Exercise, Yoga- Integrated Yoga Module (IYM), SD- Standard Deviation

6.2.2 Repeated measures Analysis of Variance (RM ANOVA)

Repeated measures Analysis of Variance (ANOVA) have indicated that main effect of Integrated Yoga Module (IYM) and Physical Exercise intervention on leadership Competency variables is significant. As Mauchly's Test of Sphericity was not met, F statistics in Univariate Tests was used with Greenhouse-Geisser correction for analysis. Independent analysis of repeated measures in F statistics with 'Tests of Within-Subjects Effects' reveals following information on of each domain of Yoga group with Integrated Yoga Module (IYM) [Table 5] and Physical Exercise group [Table6].

Table 5 - Univariate Tests[a] - Yoga Group with Greenhouse-Geisser Correction for ITL

Domains of Leadership	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Conviction in self	187.381	2.002	93.598	23.874	.000	.278
Non traditional	10.889	1.885	5.778	1.546	.218	.024
Openness and nurturing	216.107	1.333	162.127	30.615	.000	.331
Performance oriented and humane	130.679	1.826	71.557	8.693	.000	.123
Personal Touch	98.679	1.943	50.784	13.887	.000	.183
Sensitive and conscientious	79.921	2.194	36.421	11.740	.000	.159
a. Computed using alpha = .05						

Table 6 - Univariate Tests[a] - PhyEx Group with Greenhouse-Geisser Correction for ITL

Domains of Leadership	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Conviction in self	14.524	1.811	8.021	2.202	.120	.034
Non traditional	8.774	2.530	3.468	1.443	.236	.023
Openness and nurturing	26.234	2.196	11.949	5.589	**.004**	.083
Performance oriented and humane	3.948	2.648	1.491	1.527	.214	.024
Personal Touch	16.552	2.366	6.995	5.165	**.004**	.077
Sensitive and conscientious	15.746	2.182	7.215	4.827	**.008**	.072
a. Computed using alpha = .05						

6.2.3 F statistics

F statistics data is presented as below –

Conviction in self-

Yoga group: F(2.002, 93.598) = 23.874, p<0.001, Effect size ($ή^2$) = 0.278.

PhyEx group: F(1.811, 8.021) = 2.202, p<.120, Effect size ($ή^2$) = 0.034.

Non-traditional-

Yoga group: F(1.885, 5.778) = 1.546, p<.218, Effect size ($ή^2$) =0.024.

PhyEx group: F(2.530, 3.468) = 1.443, p<.236, Effect size ($ή^2$) = 0.023.

Openness and nurturing-

Yoga group: F(1.333, 162.127) = 30.615, p<.001, Effect size ($ή^2$) = 0.331.

PhyEx group: F(2.196, 11.949) = 5.589, p<.004, Effect size ($ή^2$) = 0.083.

Performance oriented and humane-

Yoga group: F(1.826, 71.557) = 8.693, p<0.001, Effect size ($ή^2$) =0.123.

PhyEx group: F(2.648, 1.491) = 1.527, p<.214, Effect size ($ή^2$) = 0.024.

Personal Touch-

Yoga group: F(1.943, 50.784) = 13.887, p<0.001, Effect size ($ή^2$)= 0.183.

PhyEx group: F(2.366, 6.995) = 5.165, p<.004, Effect size ($ή^2$)= 0.077.

Sensitive and conscientious-

Yoga group: F(2.194, 36.421) = 11.740, p<0.001, Effect size ($ή^2$) = 0.159.

PhyEx group: F(2.182, 7.215) = 4.827, p<0.008, Effect size ($ή^2$) = .072.

6.2.4 Multivariate analysis

Further multivariate analysis was used to detect repeated-measures effects as shown in [Table 7] for overall leadership competencies. Effects are significant with each measure as given by Wilks' Lamda values compared independently 'within' each group are found to be significant with p<0.001. However the effect size calculations as Partial Eta Squared values are showing the difference. Yoga Group has Effect size ($ή^2$) = 0.213 while PhyEx group has Effect size ($ή^2$) = 0.090 indicating that Integrated Yoga Module has higher impact compared to Physical Exercise.

Multivariate analysis using design - Intercept + GROUP was significant (p<0.001) with effect size ($ή^2$) = 0.088 indicating effect on two groups.

Multivariate Analysis of within subject effects for Integrated Yoga Module – IYM (Yoga) and Physical Exercise (PhyEx)

Table 7 – Tests of 'Within subject effects' for Yoga and PhyEx (independent)

Wilks' Lambda in Multivariate[a,b]

Within Subjects Effect	Group	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Leadership	Yoga	.487	8.250	18.000	512.431	.000	.213
Leadership	PhyEx	.754	2.989	18.000	512.431	.000	.090
Leadership	GROUP [c]	.759	5.894	18.00	1038.518	.000	.088

a. Design: Intercept
Within Subjects Design: leadership

b. Tests are based on averaged variables.

c. Design: Intercept + GROUP

To differentiate between the effects of repeated measures taken with duration of one month each (i.e. 1st Day pre and 30th Day, 60th Day, and 90th Day post tests), pair-wise analysis was taken into consideration. We found that Yoga has shown significant changes in repeated measures for all domains except Non-traditional way of leadership while Physical Exercise does not have significant changes in repeated measures for all domains of leadership. All six domains are analyzed for between groups effects in four measurement i.e. pre experimental data on Day 1 (1st Day), and post data on Day 2 (30th Day), Day 3 (60th day) the Day 4 (90th Day) and graphs were plotted separately

[Figure 6 to Figure 11] to measure effects on each domain with estimated marginal means.

6.2.5 Graphical Analysis

Visual analysis indicates that while effects of Physical Exercise are significant but not consistent while Integrated Yoga Module (IYM) has given significant and consistent effects. Graphs also represent the periodic effects and indicate of yoga during first month was much higher than effect of yoga in second and third month and effect has further reduced during last month of intervention.

GRAPHICAL ANALYSIS – Marginal Means of Repeated Measures for each Domain of Leadership comparison made for Yoga group and PhyEx group

Fig 6: **Marginal Means of Repeated Measures -** Conviction in Self

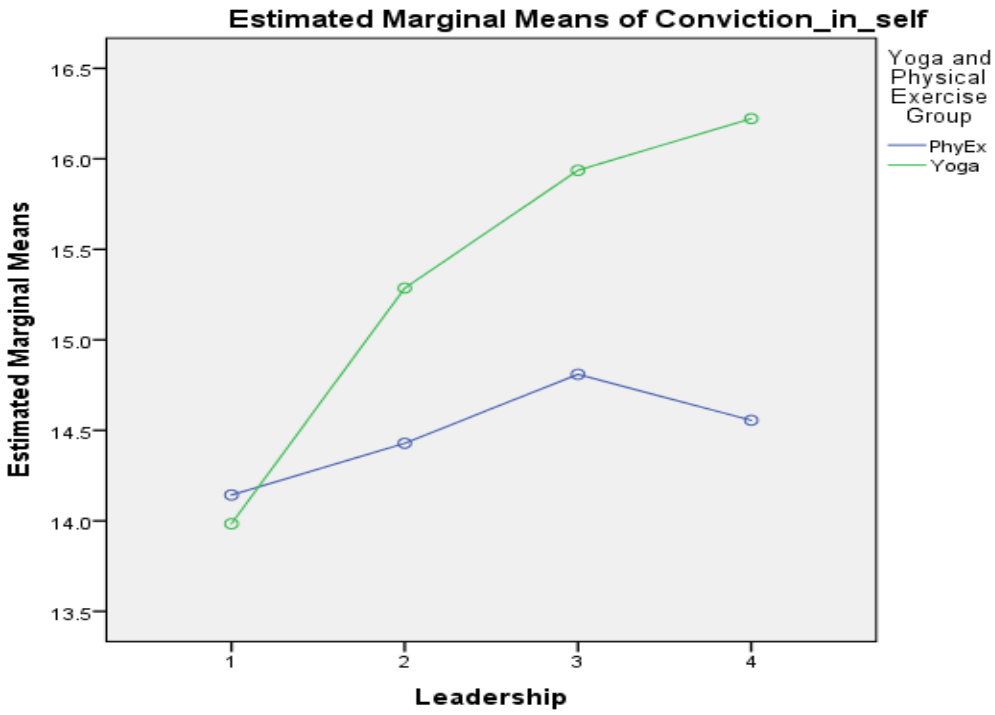


Fig 7: **Marginal Means of Repeated Measures** -Non traditional

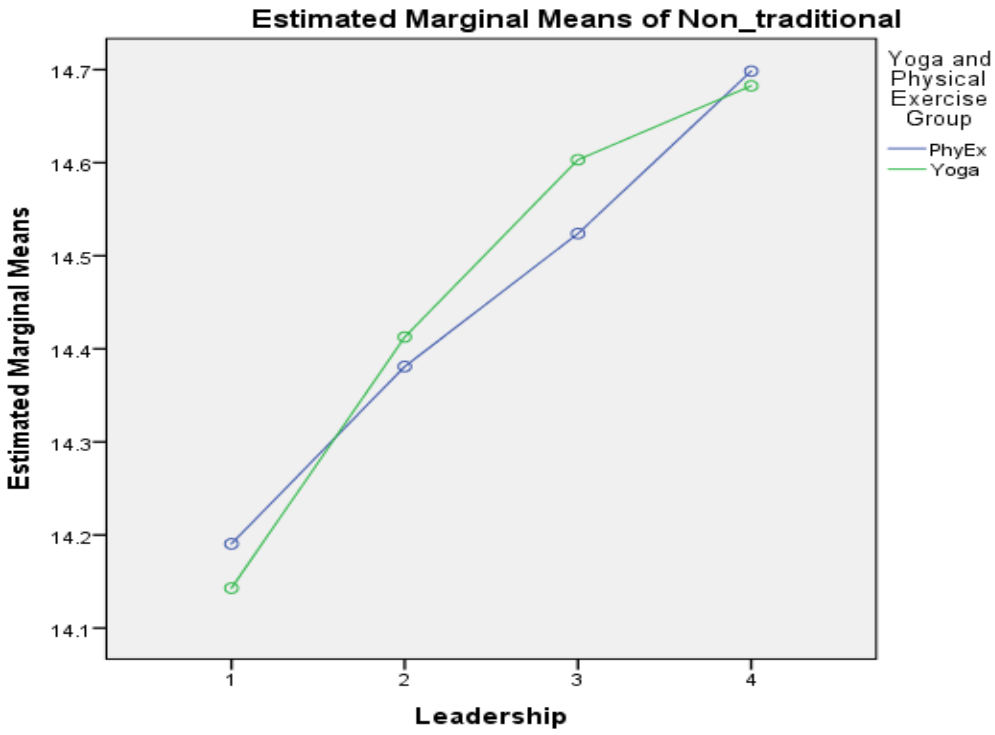


Fig 8: **Marginal Means of Repeated Measures** - Openness and nurturing

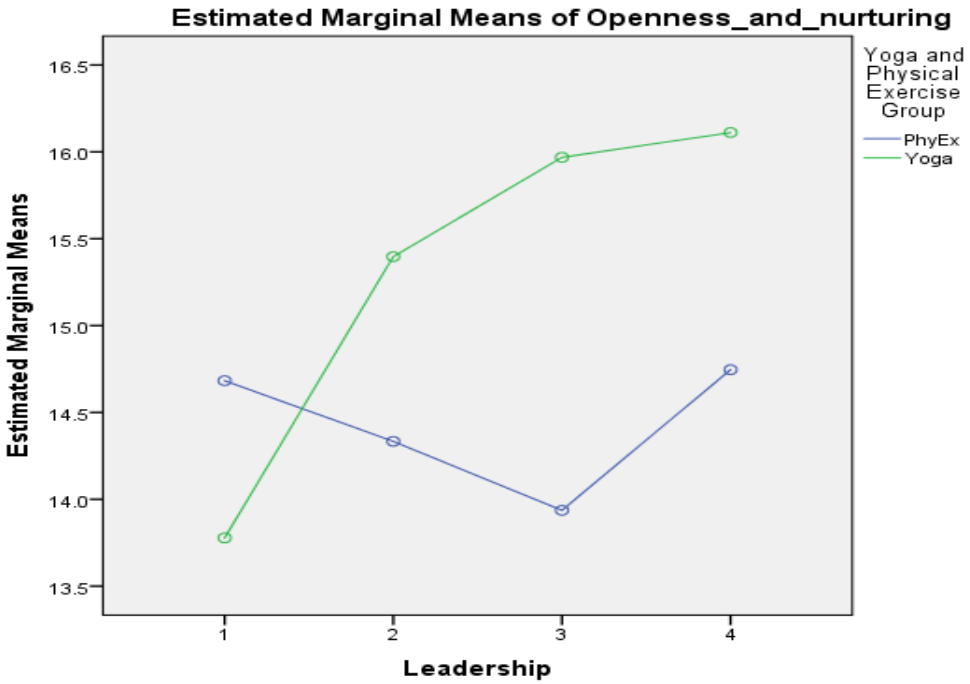


Fig 9: **Marginal Means of Repeated Measures -** Performance oriented and humane

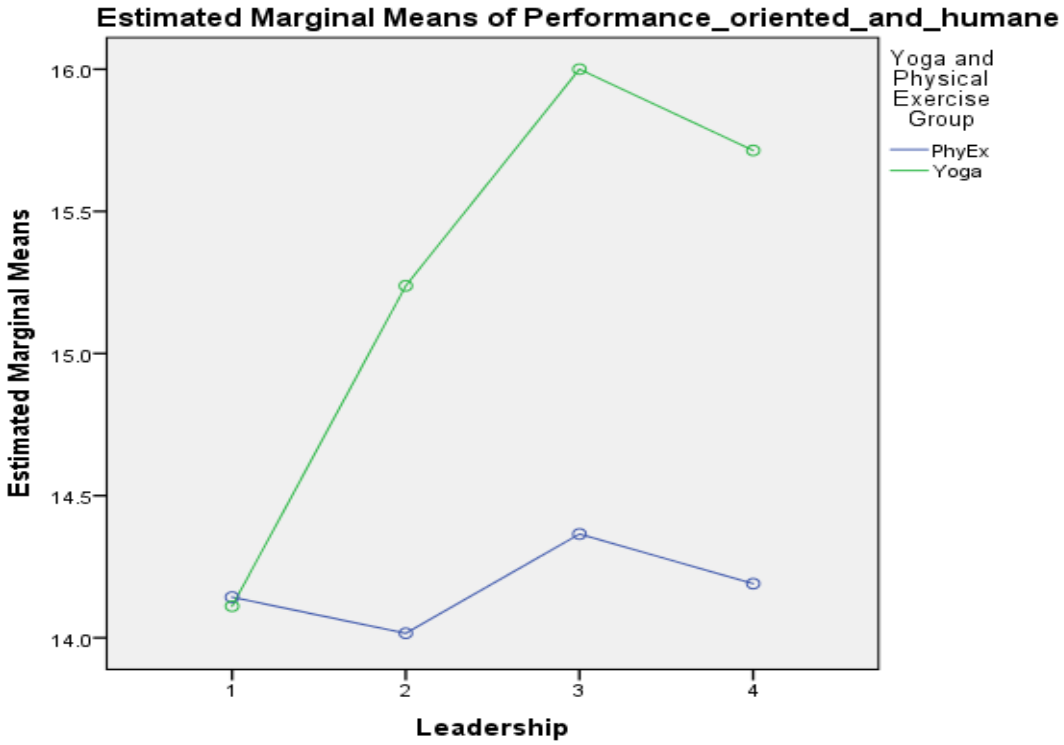


Fig 10: **Marginal Means of Repeated Measures -**Personal Touch

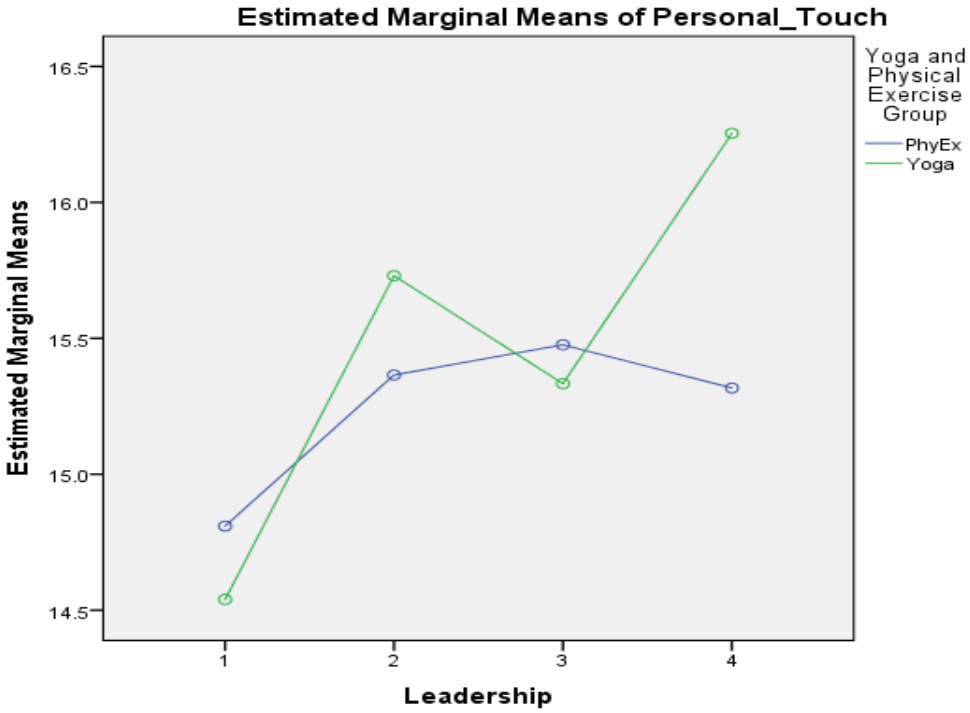
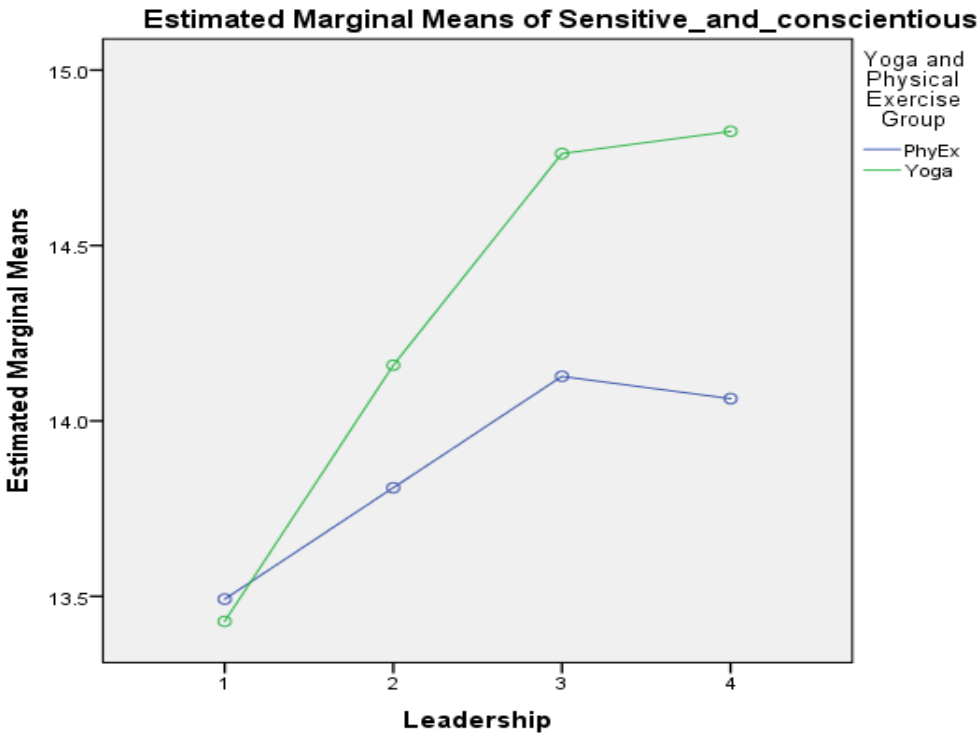


Fig 11: **Marginal Means of Repeated Measures -** Sensitive and conscientious



6.3 Decision Making

Decision making has five domains which are measured separately. Domains of Decision-making - Achievement orientation, Intuitive approach Emotional involvement, Risk preference, Routine and systems.

6.3.1 Data Analysis

Descriptive Analysis revealing the mean and standard deviations for both the groups that is experimental group practicing IYM and other control group practicing PhyEx is given in Table 8.

Table 8: Descriptive analysis* showing mean and SD values for DMSQ

Domains of Decision-making	**Group**	***N* = 63**	**1st Day**	**30th Day**	**60th Day**	**90th Day**	**Total**
Achievement orientation	PhyEx	Mean	2.53	2.6	2.66	2.67	**2.64**
		SD	0.559	0.542	0.52	0.503	**0.52**
	Yoga	Mean	2.53	2.58	2.62	2.66	**2.62**
		SD	0.312	0.292	0.332	0.327	**0.32**
Intuitive approach	PhyEx	Mean	2.52	2.52	2.58	2.56	**2.55**
		SD	0.427	0.388	0.333	0.384	**0.37**
	Yoga	Mean	2.52	2.55	2.59	2.6	**2.58**
		SD	0.33	0.322	0.327	0.312	**0.32**

Emotional involvement	PhyEx	Mean	2.69	2.71	2.66	2.67	**2.68**
		SD	0.425	0.406	0.422	0.412	**0.41**
	Yoga	Mean	2.71	2.78	2.82	2.82	**2.81**
		SD	0.425	0.432	0.407	0.411	**0.42**
Risk preference	PhyEx	Mean	2.46	2.45	2.4	2.46	**2.44**
		SD	0.429	0.442	0.477	0.435	**0.45**
	Yoga	Mean	2.46	2.49	2.52	2.56	**2.52**
		SD	0.417	0.398	0.433	0.431	**0.42**
Routine and systems	PhyEx	Mean	2.6	2.64	2.67	2.61	**2.64**
		SD	0.415	0.413	0.513	0.417	**0.45**
	Yoga	Mean	2.59	2.67	2.72	2.73	**2.71**
		SD	0.362	0.337	0.333	0.348	**0.34**

*PhyEx – physical exercise, Yoga – integrated yoga module (IYM), SD – standard deviation.

6.3.2 Repeated measures analysis of variance (RM ANOVA)

Repeated measures analysis of variance (RM ANOVA) has indicated the significant main effect of IYM intervention on decision-making style variables, whereas control group of PhyEx did not show significant within-subject effect. As Mauchly's Test of Sphericity was not met, *F* statistics analysis in Univariate Tests with Greenhouse–Geisser correction was used for analysis (Table 9 and Table 10).

Table 9: Univariate tests[a] -Greenhouse–Geisser correction in Yoga group for DMSQ

Domains of Decision making	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared
Achievement orientation	0.561	2.189	0.256	21.934	0.000	0.261
Intuitive approach	0.482	2.701	0.179	32.117	0.000	0.341
Emotional involvement	0.260	2.125	0.122	8.956	0.000	0.126
Risk preference	0.358	2.307	0.155	20.730	0.000	0.251
Routine and systems	0.785	2.512	0.313	19.597	0.000	0.240

a. Computed using alpha = .05

Table 10: Univariate tests with Greenhouse–Geisser correction in PhyEx group for DMSQ

Domains of Decision making	Type III Sum of Squares	df	Mean Square	*F*	Sig.	Partial Eta Squared	Observed Power[a]
Achievement orientation	0.755	1.219	0.619	3.280	0.066	0.050	**.476**
Intuitive approach	0.175	1.248	0.140	1.092	0.314	0.017	**.193**
Emotional involvement	0.086	2.400	0.036	5.798	0.002	0.086	**.907**
Risk preference	0.149	1.200	0.124	1.102	0.309	0.017	**.192**
Routine and systems	0.165	1.073	0.154	0.980	0.332	0.016	**.168**

a. Computed using alpha = .05

There was a significant main effect of IYM intervention on domains of decision-making.

6.3.3 F statistics

F statistics data is presented as below –

Achievement Orientation

F (2.189, 135.696) = 21.934, $p < 0.001$, effect size ($\acute{\eta}^2$) = 0.261 in yoga group and PhyEx group – F (1.219, 75.606) = 3.280, $p < 0.066$, effect size ($\acute{\eta}^2$) = 0.50.

Intuitive Approach

F (2.215, 131.776) = 8.956, $p < 0.001$, effect size ($\acute{\eta}^2$) = 0.341 in yoga group and F (1.248, 77.347) = 1.092, $p < 0.314$, effect size ($\acute{\eta}^2$) = 0.17 in PhyEx group.

Emotional Involvement

F (2.701, 167.436) = 32.117, $p < 0.001$, effect size ($\acute{\eta}^2$) = 0.126 in yoga group and F (2.4, 148.818) = 5.798, $p < 0.002$, effect size ($\acute{\eta}^2$) = 0.86 in PhyEx group.

Risk Preference

F (2.307, 143.062) = 20.730, $p < 0.001$, effect size ($\acute{\eta}^2$) = 0.251 in yoga group and F (1.2, 74.409) =1.102, $p < 0.309$, effect size ($\acute{\eta}^2$) = 0.17 in PhyEx group.

Routine and Systems

F (2.512, 186) = 19.597, $p < 0.001$, effect size ($\acute{\eta}^2$) = 0.240 in yoga group and F (1.073, 66.526) = 0.980, $p < 0.332$, effect size ($\acute{\eta}^2$) = 0.16 in PhyEx group.

Further multivariate analysis was used to detect repeated-measures effects (Table 11). Effects are significant with each measure as given by Wilks' Lamda values are compared independently 'within' each group as have given significant results $p < 0.001$ for yoga group and $p < 0.005$ for PhyEx group.

Table 11: Tests of 'Within subject effects' for Yoga and PhyEx (independent)

Wilks' Lambda – Multivariate test[a,b]

Within Subjects Effect		Value	*F*	Hypothesis df	Error df	Sig.	Partial Eta Squared
Decision_making	Yoga	0.404	13.035	15.000	502.823	0.000	0.261
Decision_making	PhyEx	0.837	2.226	15.000	502.823	0.005	0.057

a. Design: Intercept
Within Subjects Design: leadership

b. Tests are based on averaged variables.

To differentiate between the effects of RM (i.e. 1st day pre and 30th day, 60th day and 90th day post tests) pair-wise analysis was taken into consideration. Internal significance of pairs was found for all decision-making domains in yoga group. Pair-wise analysis PhyEx group significance was found only in few pairs for achievement orientation and emotional involvement.

All subscales of DMSQ have shown significant impact in Day 1 (30th day) and Day 3 (60th day), whereas in Day 4 (90th day) the impact has reduced compared with Day 2 and Day 3. The results are plotted in graphs through SPSS statistical software (Figures 12 to 16).

6.3.4 Graphical Analysis

Showing Marginal Means of Repeated Measures - for yoga and physical exercise groups

Figure 12: Marginal Means of Repeated Measures - Achievement orientation

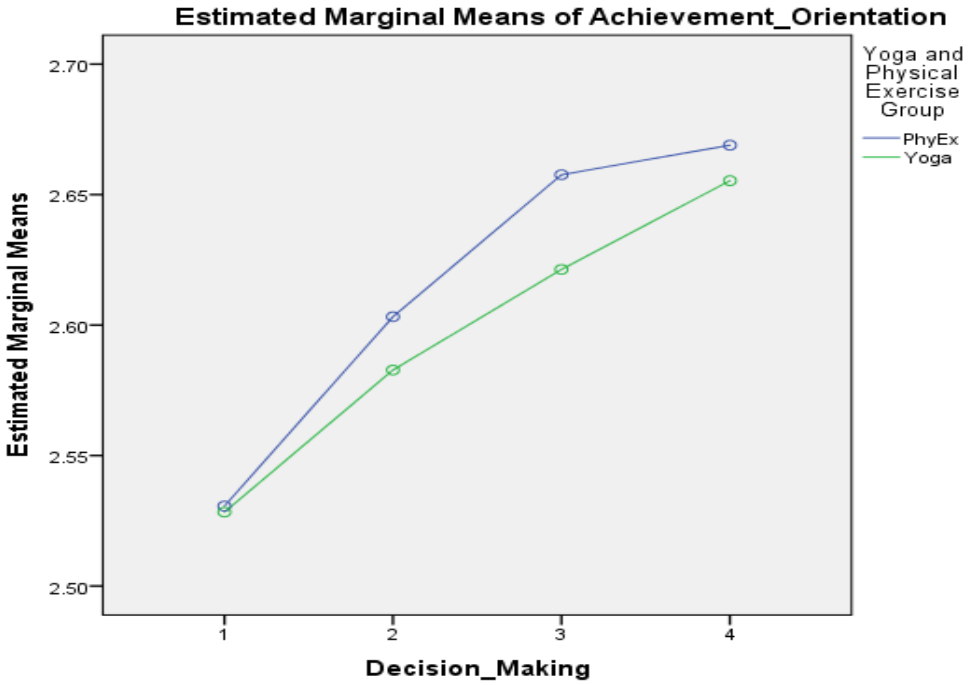


Figure 13: Marginal Means of Repeated Measures - Intuitive approach

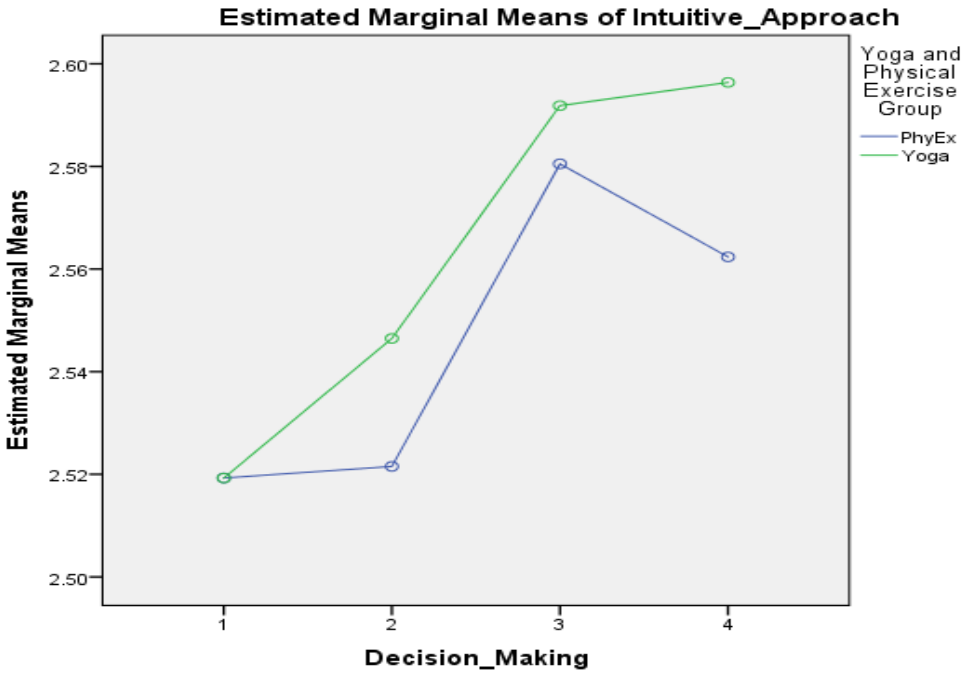


Figure 14: Marginal Means of Repeated Measures - Emotional involvement

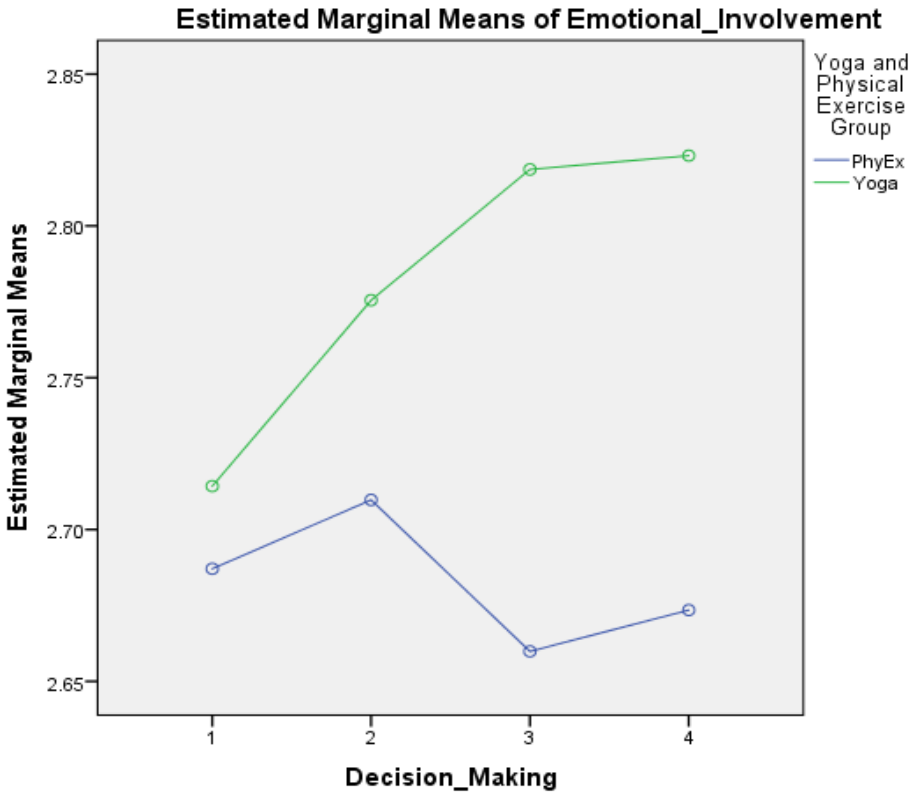


Figure 15: Marginal Means of Repeated Measures - Risk preference showed

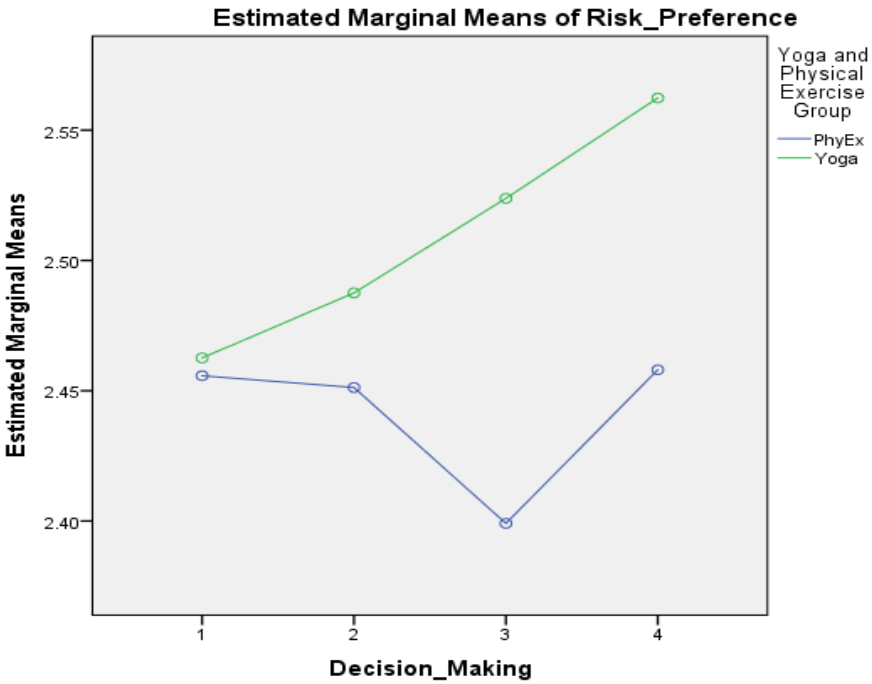
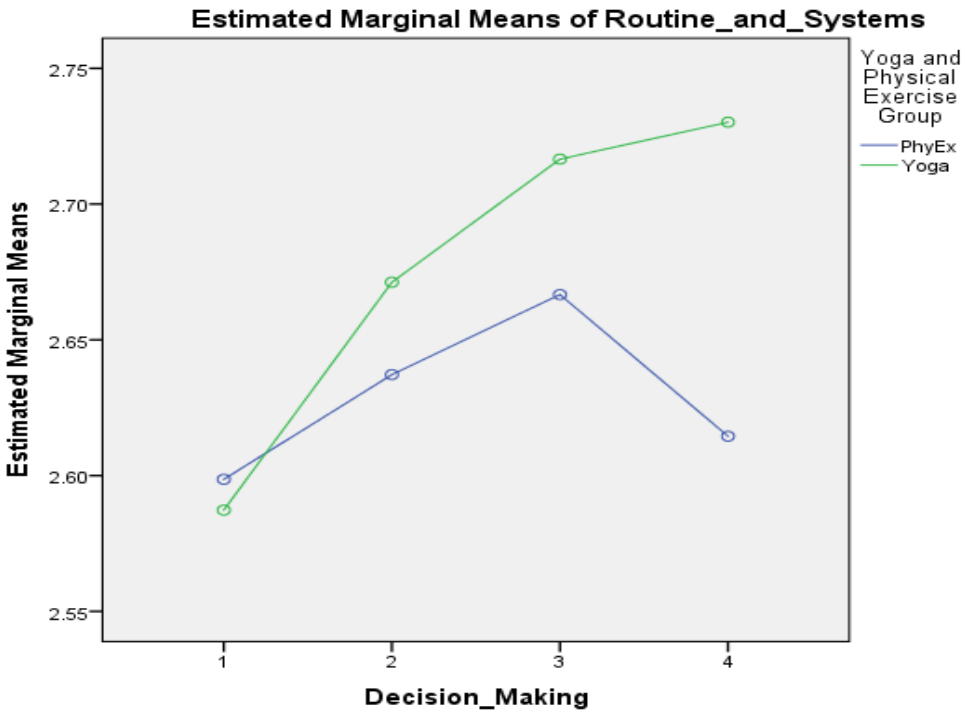


Figure 16: Marginal Means of Repeated Measures - Routine and systems



Managers practicing IYM are more likely to prefer Achievement Orientation than passive response, Intuitive than deliberative thinking, Emotional Involvement than Rational approach, Risk Preference than Risk averse, Routine & Systems than Autonomy. It is evident that IYM is effective and consistent in improving the decision-making style for managers. PhyEx group has consistent improvement only in Achievement orientation, whereas emotional involvement also has shown most significant difference between groups. Therefore, according to this study, Hypothesis 1 is accepted, and Hypothesis 2 is rejected. IYM has consistent positive impact on decision-making style of managers, whereas PhyEx does not have consistent positive impact on decision-making style of managers.

6.4 World Health Organization's Quality of Life (WHOQOL – BRIEF)

All Analysis was made using transformed scores. Domain 1 - Physical Health (Transformed Scores to 4-20 scale), Domain 2 - Psychological Health (Transformed Scores to 4-20 scale), Domain 3 - Social Relationships (Transformed Scores to 4-20 scale), Domain 4 - Environment (Transformed Scores to 4-20 scale). Each domain was analysed separately.

6.4.1 Data Analysis:

Descriptive analysis of Mean and Standard deviation [Table 12] has indicated that differential effects of Physical Exercise and Integrated Yoga Module. Yoga group has increased mean and reduced standard deviations indicating better effect of integrated Yoga module on leadership competencies.

Table 12: Descriptive analysis* showing mean and SD values for QOL

Quality of Life –	Group*	Values	DAY	DAY	DAY	DAY 90	Total
Domain 1 - Physical Health (Transformed Scores to 4-20 scale)	PhyEx	Mean	13.30	13.63	12.87	12.84	13.16
		SD	1.747	1.903	1.809	1.780	1.81
	Yoga	Mean	13.37	14.16	14.24	14.08	**13.96**
		SD	2.253	2.371	2.153	2.351	2.28
Domain 2 - Psychological Health (Transformed Scores to 4-20 scale)	PhyEx	Mean	14.16	14.62	14.54	14.49	14.45
		SD	1.537	1.887	2.131	2.213	1.94
	Yoga	Mean	14.13	15.52	16.06	15.97	**15.42**
		SD	1.972	2.449	3.095	2.978	2.62
Domain 3 - Social Relationships (Transformed Scores to 4-20 scale)	PhyEx	Mean	13.70	13.89	13.94	14.05	13.89
		SD	3.221	2.659	2.602	2.399	2.72
	Yoga	Mean	13.75	14.06	14.25	14.16	**14.06**
		SD	3.282	2.285	2.117	2.081	2.44
Domain 4 - Environment (Transformed Scores to 4-20 scale)	PhyEx	Mean	12.33	13.84	13.81	13.38	13.34
		SD	2.214	1.619	1.749	1.170	1.69
	Yoga	Mean	12.44	14.90	15.03	14.29	**14.17**
		SD	3.057	2.551	2.362	1.611	2.40

*PhyEx- Physical Exercise, Yoga- Integrated Yoga Module (IYM), SD- Standard Deviation

6.4.2 Repeated Measures Analysis of Variance (RM ANOVA)

Analysis done with repeated measures Analysis of Variance (RM ANOVA) has indicated that main effect of Integrated Yoga Module (IYM) and Physical Exercise intervention on Quality of Life domains is significant. As Mauchly's Test of Sphericity was not met, F statistics in Univariate Tests was used with Greenhouse-Geisser correction for analysis. Independent analysis of repeated measures in F statistics with 'Tests of Within-Subjects Effects' reveals following information on of each domain of Integrated Yoga Module (IYM) group [Table 13] and Physical Exercise group [Table 14].

Table 13 - Univariate Tests[a] - Yoga Group with Greenhouse-Geisser Correction for QOL

Quality of Life	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Physical Health	164.996	2.132	77.395	56.129	.000	.475
Psychological Health	20.456	1.393	14.685	11.821	.000	.160
Social Relationships	51.472	1.772	29.041	35.350	.000	.363
Environment	155.333	1.285	120.851	59.571	.000	.490

a. Computed using alpha = .05

Table 14 - Univariate Tests[a] - PhyEx Group with Greenhouse-Geisser Correction for QOL

Quality of Life Domains	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Physical Health	58.825	2.084	28.232	45.776	.000	.425
Psychological Health	.048	1.000	.048	.663	.419	.011
Social Relationships	2.075	2.057	1.009	6.224	.002	.091
Environment	5.984	1.316	4.547	6.131	.009	.090

a. Computed using alpha = .05

6.4.3 F statistics

F statistics data are presented as below –

Physical Health

Yoga group: F(2.132, 77.395) = 56.129, p<0.001, Effect size ($ή^2$) = 0.475.

PhyEx group: F(2.084, 28.232) = 45.776, p<0.001, Effect size ($ή^2$) = 0.425.

Psychological Health

Yoga group: F(1.393, 14.685) = 11.821, p<0.001, Effect size ($ή^2$) =0.160.

PhyEx group: F(1.000, .048) = .663, p<0.419, Effect size ($ή^2$) = 0.011.

Social Relationships

Yoga group: F(1.772, 29.041) = 35.350, p<0.001, Effect size ($ή^2$) = 0.363.

PhyEx group: F(2.057, 1.009) = 6.224, p<0.002, Effect size ($ή^2$) = 0.091.

Environment

Yoga group: F(1.285, 120.851) = 59.571, p<0.001, Effect size ($ή^2$) =0.490.

PhyEx group: F(1.316, 4.547) = 6.131, p<0.009, Effect size ($ή^2$) = 0.090.

6.4.4 Multivariate Analysis

Further multivariate analysis was used to detect repeated-measures effects as shown in [Table 15] for overall leadership competencies. Multivariate Analysis of within subject effects for Integrated Yoga Module – IYM (Yoga) and Physical Exercise (PhyEx) was analysed for Quality of Life. Effects are significant with each measure as given by Wilks' Lamda values are compared independently 'within' each group are found to be significant with $p<0.001$.

Table 15: – Tests of 'Within subject effects' for Yoga and PhyEx for QOL

Wilks' Lambda test - Multivariate[a,b]

Within Subjects Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Quality of Life	.372	36.894	12.000	976.574	.000	.281
Quality of Life * GROUP	.700	11.751	12.000	976.574	.000	.112

a. Design: Intercept + GROUP Within Subjects Design: Quality of Life

b. Tests are based on averaged variables.

Computed using alpha = .05

6.4.5 Graphical Analysis

Marginal Means of Repeated Measures for Yoga and Physical Exercise

Effect of Yoga and Physical Exercise are shown in Figures [Fig 17 to 20].

Fig. 17: **Marginal Means of Repeated Measures -** Quality of Life – Physical health

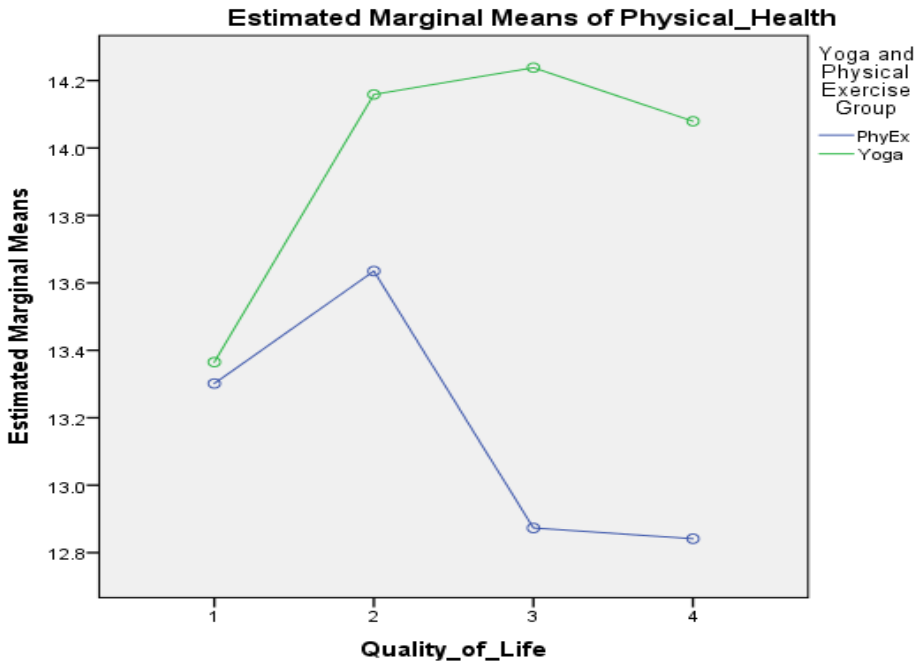


Fig. 18: **Marginal Means of Repeated Measures -** Quality of Life – Psychological health

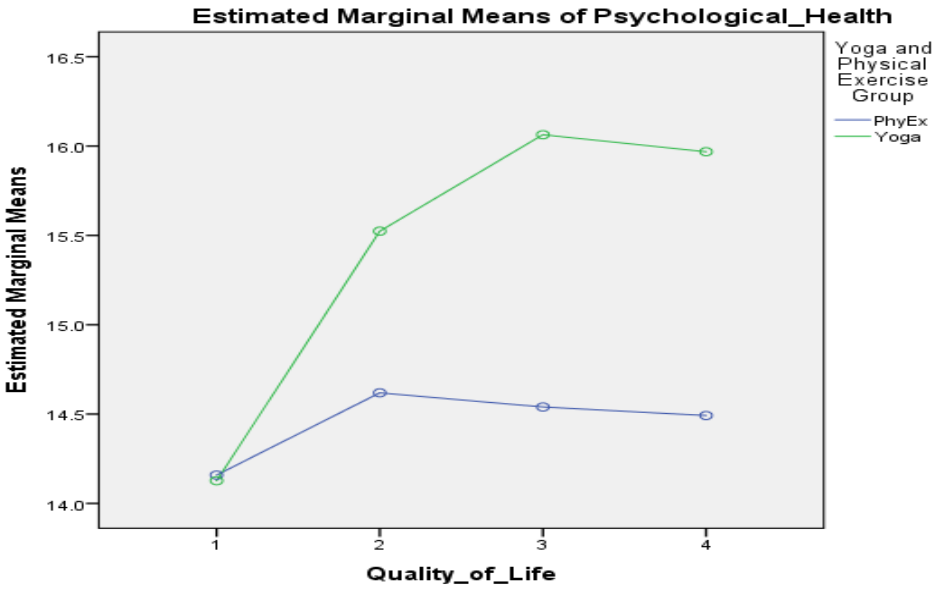


Fig. 19: **Marginal Means of Repeated Measures -** Quality of Life – Social Relationships

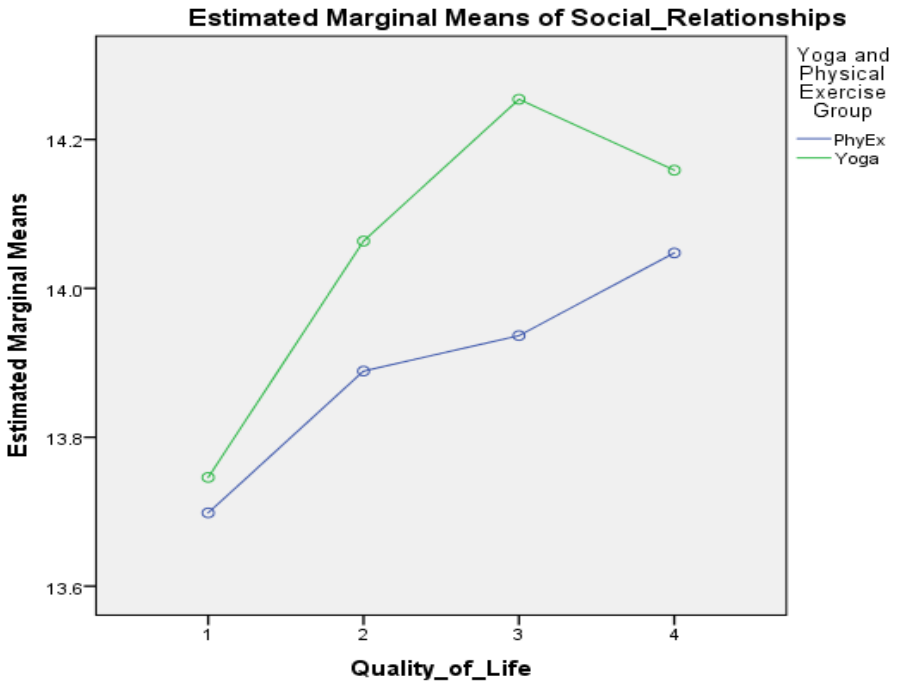
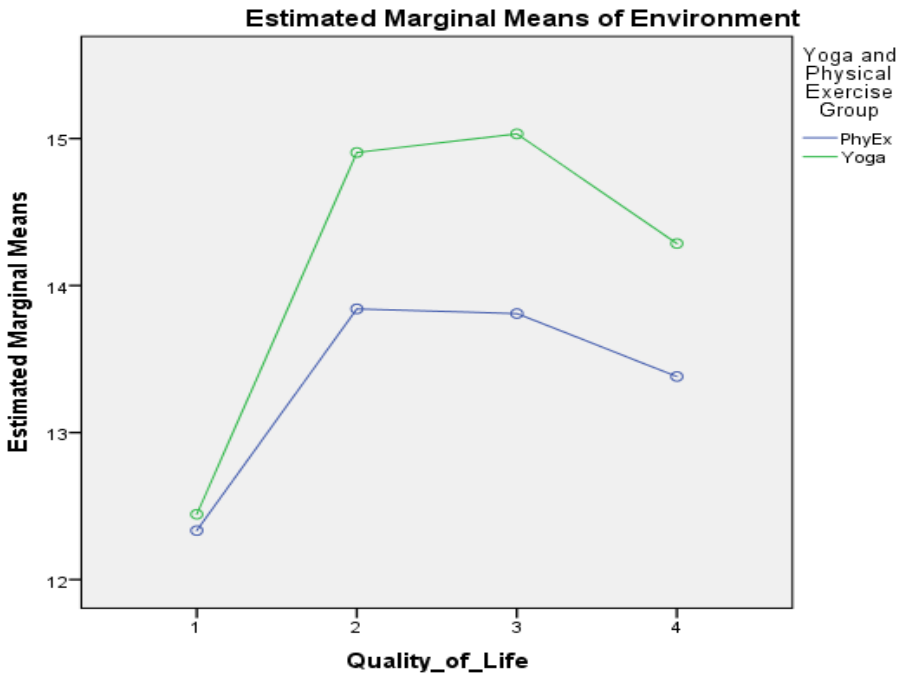


Fig. 20: **Marginal Means of Repeated Measures -** Quality of Life – Environment



To differentiate between the effects of repeated measures taken with duration of one month each we compared 1^{st} day with 30^{th}, 60^{th} and 90^{th} day in 'pair-wise comparisons'. We found that that Yoga has shown significant changes in repeated measures for domains like psychological health and environment while physical health and social relationships did not show consistency in results.

Effects of Physical Exercise and Integrated Yoga Module (IYM) were represented in graphical plots also reveals that effects of yoga during first month was much higher than effect of yoga in consecutive months.

6.5 Guna Personality Inventory (GPI)

All participants were asked to fill in Guna Personality Inventory (GPI) on 1st day, and then on 30th, 60th and 90th Day. The Scores 18 to 23 indicate the predominantly Tamas guna in personality, Scores 24 to 27 indicate the predominantly Rajas guna in personality and Scores 27 to 30 indicate the predominantly Satva guna in personality. The resultant GPI scores were converted into codes like 1 for Tamas, 2 for Rajas (24-27) and 3 for Satva (27-30). Cross-tabulations are calculated for the number of participants under each guna i.e. Tamas, Rajas and Satva. They are measured for each data collection cycle and graphs plotted [Plates 1 and 2] show the overall number of Satva predominant people has increased in Yoga Group while Physical Education group shows increase in Rajas predominant people. Moreover the move from Tamas to Rajas and then to Satva are mostly seen when 1st day (pre) is compared with 90th Day (post).

Following cross-tabulations [Table 16] show the number of participants under each guna i.e. Tamas, Rajas and Satva. They are measured for each data collection cycle and graphs plotted show the overall number of Satva predominant people has increased in Yoga Group while Physical Education group shows increase in Rajas predominant people. Moreover the move from Tamas to Rajas and then to Satva are mostly seen when 1st day (pre) is compared with 90th Day (post).

6.5.1 Cross-tabulations

Table 16: Cross Tabulation of number of participants Guna values in GPI

Crosstab

Count

		Satva Rajas and Tamas on Day 1			
		1	2	3	Total
Yoga and Physical Exercise Group	PHY EX	37	16	10	63
	Yoga (IYM)	35	18	10	63
Total		72	34	20	126

Crosstab

Count

		Satva Rajas and Tamas on Day 2			
		1	2	3	Total
Yoga and Physical Exercise Group	PHY EX	12	42	9	63
	Yoga (IYM)	8	38	17	63
Total		20	80	26	126

Crosstab

Count

		Satva Rajas and Tamas on Day 3			
		1	2	3	Total
Yoga and Physical Exercise Group	PHY EX	10	35	18	63
	Yoga (IYM)	5	30	28	63
Total		15	65	46	126

Crosstab

Count

		Satva Rajas and Tamas on Day 4			
		1	2	3	Total
Yoga and Physical Exercise Group	PHY EX	7	39	17	63
	Yoga (IYM)	1	30	32	63
Total		8	69	49	126

6.5.2 Guna variation

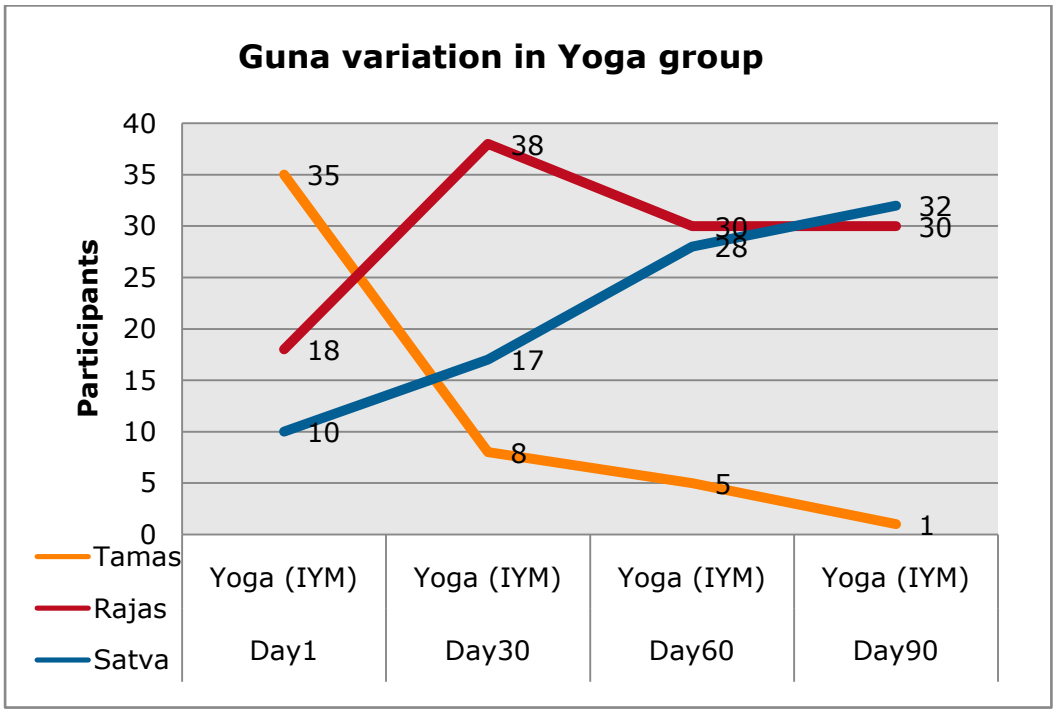


Plate 1: Guna variation in Yoga group

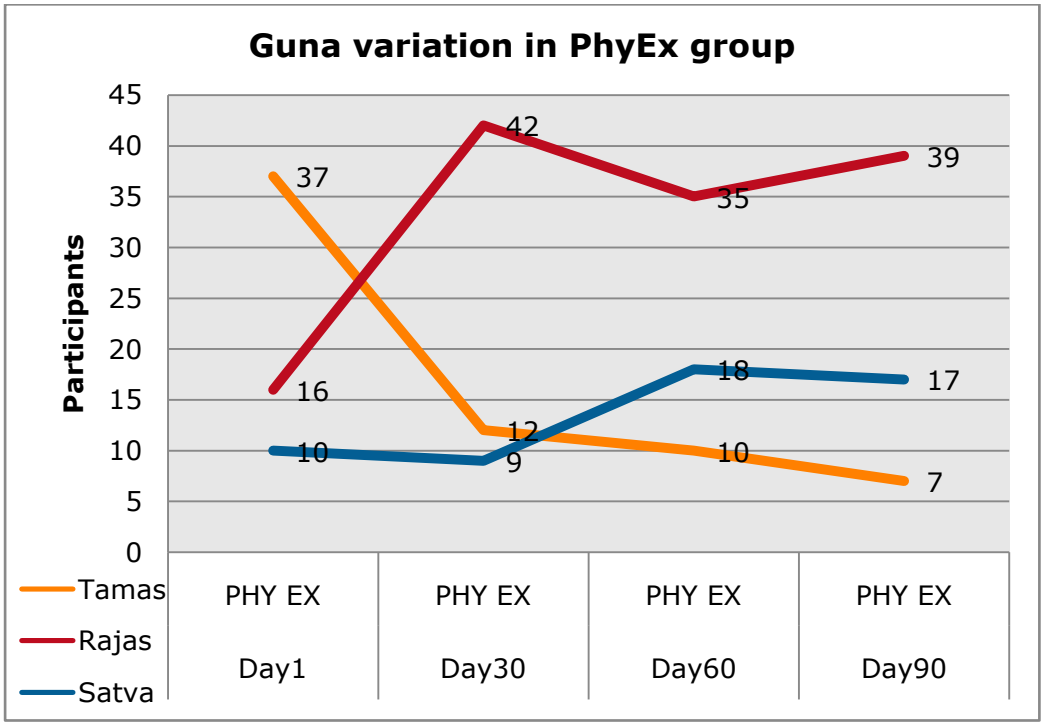


Plate 2: Guna variation in PhyEx group

Guna Variation results show that Yoga Group subjects with Satva as predominant Guna have increased while subjects with Rajas predominant guna have shown variation. Subjects with Tamas predominant guna have sharply reduced indicating that Integrated Yoga Module increases Satva Guna.

Guna variation in Physical Exercise group has shown that subjects with Rajas as predominant guna have increased more than subjects with Satva as Predominant guna. Subjects with Tamas as predominant guna have reduced indicating that Physical Exercise increases Rajas guna.

Thus we may conclude that Integrated Yoga Module increases Satva Guna while Physical Exercise increases Rajas guna and both reduce Tamas Guna in Human System.

"Rediate boundless love towards the entire world – above, below and across – unhindered, without ill will, without enemity."

– Buddha

Chapter 7
DISCUSSIONS

7 DISCUSSIONS

Indian philosophy and Indian traditional knowledge base provides insights about principles of yoga. In additional to Karma yoga, which is the beginning stage, there are other yogic paths such as Bhakti Yoga, Raja Yoga, Jnana Yoga in Life Cycle. We further studied impact of all these yogic practices in management leadership competency development. It develops each individual from individual to social and finally to integrative life. In addition to the authoritative scriptures given, scientific evidence through empirical studies is required to further validate the model. We came across the limitations of measurement tools which can truly represent the leadership phenomenon through 'Vedanta Model of Leadership'. There is scope for further study and development of such measurement scales.

This research also studied long-term effects of yoga practices on decision-making style of managers. It should be noted that IYM contains Asanas, Pranayama (regulated breathing) and Cyclic Meditation which enhances self-regulation and willpower to resist the cognitive traps inherent in human thinking. Manager's responses for leadership and decision-making are thus more likely to result from long-term reflective system than short-term impulsive system.

The observed effect of yoga seems to be due to regulation of energies at mind and body level. While physical exercise works at body level with stimulating effect on physiological functions. In the modern business world yoga and physical exercise provide as tools to improve Quality of Life for managers which in turn form the base for better work life as well. Physical Exercise though is effective in first month, longer duration of three months consistent effects were seen only with regular practice of yoga.