

CHAPTER 7

RESULTS

Since the objectives of this study are:

1. To evaluate the impact of Integrated Yōga Module practices on Big Five Personality dimensions of employees assessed through Big Five Inventory
2. To evaluate the impact of Integrated Yōga Module practices on Guṇa Traya dimensions of employees assessed through Vedic Personality Inventory
3. To study the relationship between Big Five Personality dimensions and Guṇa Traya dimensions

the results are discussed under the following sub topics

1. Demographic particulars of participants
2. Changes in Big Five Personality dimensions of employees- with in group during the study period and between the groups during the study period
3. Changes in Guṇa Traya dimensions of employees- with in group during the study period and between the groups during the study period
4. Correlation between Big Five Personality dimensions and Guṇa Traya dimensions

Notes:

1. The study is repeated on the same subjects for three times. Hence Oneway RMANOVA test is applied to study the changes within the group and between the group.
2. In this chapter, the abbreviations denote the following meanings

*indicates that the values are significant

** indicates that the values are highly significant

Pre, Mid, End study means the Study before intervention, Study in the middle of intervention, Study after intervention respectively

Y1,Y2,Y3 means Yōga Intervention group at the time of - Before study, Middle of study, At the end of study

C1,C2,C3 means Control group at the time of - Before study, Middle of study , At the end of study

Y means Intervention group and C means Control group

SD / Std dev means Standard Deviation

O,C,E,A,N means Openness to experience, Conscientiousness, Extraversion, Agreeableness, Neuroticism respectively

S,R,T means Sattva Guṇa, Rajasika Guṇa, Tamasika Guṇa respectively

7.1 Demographic particulars of participants

Table 7.1- Particulars of age and job experience of participants

	Age of Intervention group	Experience Of intervention group	Age of Control group	Experience Of Control group
Mean	34.78	10.62	32.21	7.21
std dev	6.66	6.17	4.77	4.26

Table 7.1 represents age and experience of subjects. The average age of participants in Intervention group is 34.78 years with standard deviation of 6.66 where as the average age of participants in Control group is 32.21 with standard deviation of 4.77. The average experience of participants in Intervention group is 10.62 years with standard deviation of 6.17 where as the average experience of participants in Control group is 7.21 years with standard deviation of 4.26 years. The average experience of participants of Intervention group is about 3.4 years more than that of Control group. This is in line with the average age of participants, where average age of participants in Intervention group is more by 2.5 years. Table 7.1 shows that the background of subjects in terms of age and experience in Control group and Intervention group is similar.

Table 7.2 – Particulars of industry wise distribution of participants

Industry	Intervention group	Control group
IT and related	21	20
Finance and related	15	14
Others	15	17

Table 7.2 represents the industries in which the subjects are employed. For the sake of study, the industries are divided as 1) Information Technology and related services like BPO,

electronics 2) Finance and related services include banking, insurance, mutual funds, accounting services 3) those who do not fall under the above two are categorized as ‘others’. The table shows the similarity in distribution of the participants in both Control group and Intervention group.

7.2 Changes in Big Five Personality dimensions during the study period

Openness to experience

Table 7.3 - Mean changes in Openness to experience during the study period

	Mean Y	Mean C	SD Y	SD C	Change	Change
Pre	29.61	29.92	5.66	5.02		
Mid	31.81	30.43	5.42	5.03	7.41%	1.66%
End	34.08	30.51	5.87	5.21	14.82%	2.04%

Table 7.3 represent the mean changes in the Openness to experience in Intervention group and Control group. Since the total number of items in Openness to experience are 10 and scale points are five, the maximum score is 50. The pre study i.e., base line data shows that score of Openness to experience is 29.61 with standard deviation of 5.66 in Intervention group where as the same for Control group is 29.92 and 5.02 respectively which show that the both groups are similar in Openness to experience before the study. The Mid study shows that there is 7.41% increase in Openness to experience in Intervention group ,but only 1.66% increase in Control group. Similarly End study shows that there is 14.82% increase in Intervention group where as it is only 2.04 % in Control group. This indicates the increase of Openness to experience by 7.5 times more from Pre study of study to the End study of the study, in Intervention group compared to Control group.

Table 7.4 - Changes in Openness to experience within each group during the study period

Group	Time factor	Significance (p value)
Yoga	Pre vs Mid	.001**
	Pre vs End	.001**
	Mid vs End	.001**
Control	Pre vs Mid	.842
	Pre vs End	.922
	Mid vs End	1.000

Table 7.4 shows changes in Openness to experience with in Intervention group and Control group during the study. It shows a continuous highly significant increase in Openness to experience from Pre study to Mid study($p<.01$), Mid study to End study ($p<.01$) and Pre study to End study ($p<.01$) in Intervention group . There is no significant change in Openness to experience from Pre study to Mid study($p>.05$) or Mid study to End study($p>.05$) or Pre study to End study ($p>.05$) in participants of Control group

Table 7.5 - Changes in Openness to experience between groups during the study period

Time factor	Group	Significance (p value)
Pre	Y1 vs C1	.346
Mid	Y2 vs C2	.008**
End	Y3 vs C3	.001**

Table 7.5 Shows the change in Openness to experience in Intervention group and Control group using between group through Oneway RMANOVA test . Pre study values shows that baseline data is matched means both the groups are identical. Mid study shows that there is highly significant increase in the Openness to experience in Intervention group compared to

Control group ($p < .01$). End study shows that there is highly significant increase in the Openness to experience in Intervention group compared to Control group ($p < .01$).

Conscientiousness

Table 7.6 - Mean changes in Conscientiousness during the study period

	Mean Y	Mean C	SD Y	SD C	Change Y	Change C
Pre	28.54	28.17	3.83	4.21		
Mid	31.25	28.70	3.93	4.08	9.61%	2.01%
End	33.65	28.96	4.46	4.92	18.07%	3.04%

Table 7.6 represent the mean changes in the Conscientiousness in Intervention group and Control group. Since the total number of items in Conscientiousness are 9 and scale points are five, the maximum score is 45. The pre study i.e., base line data shows that score of Conscientiousness is 28.54 with standard deviation of 3.83 in Intervention group where as the same for Control group is 28.17 and 4.21 respectively which show that the both groups are similar in Conscientiousness before the study. The Mid study shows that there is 9.61% increase in Conscientiousness in Intervention group ,but only 2.01% increase in Conscientiousness in Control group. Similarly End study shows that there is 18.07 % increase in Intervention group where as it is only 3.04% in Control group. This indicates the increase of Conscientiousness by 6 times more from Pre study of study to the End study of the study, in Intervention group compared to Control group.

Table 7.7 - Changes in Conscientiousness within each group during the study period

Group	Time factor	Significance (p value)
Yoga	Pre vs Mid	.001**
	Pre vs End	.001**
	Mid vs End	.001**
Control	Pre vs Mid	.275
	Pre vs End	.327
	Mid vs End	1.000

Table 7.7 shows changes in Conscientiousness within Intervention group and Control group during the study. It shows continuous highly significant increase in Conscientiousness from Pre study to Mid study($p<.01$), Mid study to End study($p<.01$) and Pre study to End study ($p<.01$) in Intervention group . There is no significant change in Conscientiousness from Pre study to Mid study($p>.05$) or Mid study to End study($p>.05$) or Pre study to End study ($p>.05$) in Control group

Table 7.8 - Changes in Conscientiousness between groups during the study period

Time factor	Group	Significance (p value)
Pre	Y1 vs C1	.056
Mid	Y2 vs C2	.001**
End	Y3 vs C3	.001**

Table 7.8 Shows the change in Conscientiousness in Intervention group and Control group using between group through Oneway RMANOVA test . Pre study values shows that baseline data is matched means both the groups are identical. Mid study shows that there is highly significant increase in the Conscientiousness in Intervention group compared to Control group ($p < .01$).End study shows that there is highly significant increase in the Conscientiousness in Intervention group compared to Control group ($p < .01$).

Extraversion

Table 7.9- Mean changes in Extraversion during the study period

	Mean Y	Mean C	SD Y	SD C	Change Y	Change C
Pre	27.31	27.73	3.22	3.72		
Mid	27.72	28.12	3.25	3.29	0.75%	1.89%
End	28.39	28.18	3.63	3.36	3.06%	2.42%

Table 7.9 represent the mean changes in the Extraversion in Intervention group and Control group. Since the total number of items in Extraversion are eight and scale points are five, the maximum score is 40. The pre study i.e., base line data shows that score of Extraversion is 27.31 with standard deviation of 3.22 in Intervention group where as the same for Control group is 27.72 and 3.72 respectively which show that the both groups are similar in Extraversion before the study. The Mid study shows that there is 0.75% increase in Extraversion in Intervention group and 1.89 % increase in Extraversion in Control group. Similarly End study study shows that there is 3.06 % increase in Intervention group where as it is only 2.42 % in Control group. These results indicate that there is no significant mean changes in Extraversion in Intervention group compared to Control group.

Table 7.10 - Changes in Extraversion within each group during the study period

Group	Group	Significance (p value)
Yoga	Pre vs Mid	.273
	Pre vs End	.011**
	Mid vs End	.072
Control	Pre vs Mid	.205
	Pre vs End	.436
	Mid vs End	1.000

Table 7.10 shows changes in Extraversion with in Intervention group and Control group during the study. It shows no significant increase in Extraversion from Pre study to Mid study($p>.01$), Mid study to End study($p<.01$) and there is a significant increase in Pre study to End study ($p<.01$) in intervention group . There is no significant change in Extraversion from Pre study to Mid study($p>.05$), Mid study to End study($p>.05$) and Pre study to End study ($p>.05$) in Control group

Table 7.11 - Changes in Extraversion between groups during the study period

Time factor	Group	Significance (p value)
Pre	Y1 vs C1	.231
Mid	Y2 vs C2	.226
End	Y3 vs C3	.048**

Table 7.11 Shows the changes in Extraversion in Intervention group and Control group using between group through Oneway RMANOVA test. Pre study values shows that baseline

data is matched means both the groups are identical. It shows that the score of Extraversion is relatively same in both groups before study. Mid study shows that there is no significant increase in the Extraversion in Intervention group compared to Control group ($p < .001$). End study shows that there is highly significant increase in the Extraversion in Intervention group compared to Control group ($p < .05$).

Agreeableness

Table 7.12- Mean changes in Agreeableness during the study period

	Mean Y	Mean C	SD Y	SD C	Change Y	Change C
Pre	28.22	28.51	4.51	4.21		
Mid	29.71	28.20	4.86	5.23	4.44%	0.74%
End	31.12	28.47	5.50	5.42	11.1%	0.01%

Table 7.12 represent the mean changes in the Agreeableness among the subjects in Intervention group and Control group. Since the total number of items in Agreeableness are nine and scale points are five, the maximum score is 45. The pre study i.e., base line data shows that score of Agreeableness is 28.22 with standard deviation of 4.51 in Intervention group where as the same for Control group is 28.51 and 4.21 respectively which show that the both groups are similar in Agreeableness before the study. The Mid study shows that there is 4.44% increase in Agreeableness in Intervention group ,but only 0.74% increase in Agreeableness in Control group. Similarly End study shows that there is 11.1% increase in Intervention group where as it is only 0.01% in Control group.

Table 7.13- Changes in Agreeableness within each group during the study period

Group	Time factor	Significance (p value)
Yoga	Pre vs Mid	.001**
	Pre vs End	.001**
	Mid vs End	.001**
Control	Pre vs Mid	1.000
	Pre vs End	1.000
	Mid vs End	1.000

Table 7.13 shows changes in Agreeableness with in Intervention group and Control group during the study. It shows a continuous highly significant increase in Agreeableness from Pre study to Mid study($p<.01$), Mid study to End study($p<.01$) and Pre study to End study ($p<.01$) in Intervention group . There is no significant change in Agreeableness from Pre study to Mid study($p>0.05$), Mid study to End study($p>.05$) and Pre study to End study ($p>.05$) in Control group

Table 7.14 - Changes in Agreeableness between groups during the study period

Time factor	Group	Significance (p value)
Pre	Y1 vs C1	.315
Mid	Y2 vs C2	.012**
End	Y3 vs C3	.001**

Table 7.14 Shows the change in Agreeableness in Intervention group and Control group using between group through Oneway RMANOVA test . Pre study values shows that baseline data is matched means both the groups are identical. Mid study shows that there is highly

significant increase in the Agreeableness in Intervention group compared to Control group ($p < .01$). End study shows that there is highly significant increase in the Agreeableness in Intervention group compared to Control group ($p < .01$).

Neuroticism

Table 7.15- Mean changes in Neuroticism during the study period

	Mean Y	Mean C	SD Y	SD C	Change Y	Change C
Pre	28.12	26.39	3.37	3.52		
Mid	25.94	26.02	3.90	3.86	-7.9%	-1.9%
End study	23.52	26.10	4.55	4.02	-17%	-2.4%

Table 7.15 represents the average changes in the Neuroticism in Intervention group and Control group. Since the total numbers of items in Neuroticism are eight and scale points are five, the maximum score is 40. The pre study i.e., base line data shows that score of Neuroticism is 28.12 with standard deviation of 3.37 in Intervention group whereas the same for Control group is 26.39 and 3.52 respectively which show that the both groups are similar in Neuroticism before the study. The Mid study shows that there is 7.9 % decrease in Neuroticism in Intervention group, but only 1.9% decrease in Control group. Similarly End study shows that there is 17% decrease in Intervention group where as it is only 2.4% decrease in Control group. This indicates the decrease of Neuroticism by 7 times more from Pre study of study to the End study of the study, in Intervention group compared to Control group.

Table 7.16 - Changes in Neuroticism within each group during the study period

Group	Time factor	Significance (p value)
Yoga	Pre vs Mid	.001**
	Pre vs End	.001**

	Mid vs End	.001**
Control	Pre vs Mid	.529
	Pre vs End	1.000
	Mid vs End	1.000

Table 7.16 shows changes in Neuroticism with in Intervention group and Control group during the study. It shows a continuous decrease in Neuroticism from Pre study to Mid study($p<.01$), Mid study to End study($p<.01$) and Pre study to End study ($p<.01$) in Intervention group . There is no significant change in Neuroticism from Pre study to Mid study($p>0.05$), Mid study to End study($p>.05$) and Pre study to End study ($p>.05$) in Control group

Table 7.17- Changes in Neuroticism between groups during the study period

Time factor	Group	Significance (p value)
Pre	Y1 vs C1	.001**
Mid	Y2 vs C2	.215
End	Y3 vs C3	.060

Table 7.17 shows the change in Neuroticism in Intervention group and Control group using between groups through Oneway RMANOVA test. Pre study values shows that baseline data is not matched means both the groups are not identical($p< .05$) hence we couldn't see any significant changes in values of mid and post studies

7.3 Changes in Guṇa Traya dimensions during the study period

Sattva Guṇa

Table 7.18- Mean changes in Sattva Guṇa during the study period

	Mean Y	Mean C	SD Y	SD C	Change Y	Change C
Pre	75.61	79.12	7.03	8.47		
Mid	80.22	81.34	7.42	8.32	6.11%	2.83%
End	85.89	81.28	7.91	9.03	13.71%	2.75%

Table 7.18 represent the mean changes in the Sattva Guṇa in Intervention group and Control group. Since the total number of items in Sattva Guṇa are 15 and scale points are seven, the maximum score is 105. The pre study i.e., base line data shows that score of Sattva Guṇa is 75.61 with standard deviation of 7.03 in Intervention group whereas the same for Control group is 79.12 and 8.47 respectively which show that the both groups are similar in Sattva Guṇa before the study. The Mid study shows that there is 6.11% increase in Sattva Guṇa in Intervention group ,but only 13.71% increase in Sattva Guṇa in Control group. Similarly End study shows that there is 13.71% increase in Intervention group where as it is only 2.75% in Control group. This indicates the increase of Sattva Guṇa by 5 times more from Pre study of study to the End study of the study, in Intervention group compared to Control group.

Table 7.19- Changes in Sattva Guṇa within each group during the study period

Group	Time factor	Significance (p value)
Yōga	Pre vs Mid	.001**
	Pre vs End	.001**
	Mid vs End	.001**
Control	Pre vs Mid	.012**
	Pre vs End	.201

	Mid vs End	1.000
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Table 7.19 shows changes in Sattva Guṇa with in Intervention group and Control group during the study. It shows a continuous highly significant increase in Sattva Guṇa from Pre study to Mid study ($p<.01$), Mid study to End study ($p<.01$) and Pre study to End study ($p<.01$) in Intervention group. There is significant increase in Sattva Guṇa from Pre study to Mid study($p<0.05$), but no significant changes in Mid study to End study($p>.05$) and Pre study to End study ($p>.05$) in Sattva Guṇa of Control group

Table 7.20 - Changes in Sattva Guṇa between groups during the study period

Time factor	Group	Significance (p value)
Pre	Y1 vs C1	.930
Mid	Y2 vs C2	.286
End	Y3 vs C3	.001**

Table 7.20 Shows the change in Sattva Guṇa in Intervention group and Control group using between group Oneway RMANOVA test . Pre study values shows that baseline data is matched means both the groups are identical. Mid study shows that there is no significant increase in the Sattva Guṇa in Intervention group compared to Control group ($p> .05$).End study shows that there is highly significant increase in the Sattva Guṇa in Intervention group compared to Control group ($p < .01$).

Rajas

Table 7.21- Mean changes in Rajasika Guṇa during the study period

	Mean Y	Mean C	SD Y	SD C	Change Y	Change C
Pre	101.26	102.97	8.28	7.93		
Mid	100.39	103.05	8.17	7.87	- 0.86%	0.07%

End	99.54	105.28	9.17	8.88	-1.69%	2.24%
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Table 7.21 represent the mean changes in the Rajasika Guṇa in Intervention group and Control group. Since the total number of items in Rajasika Guṇa are 19 and scales are seven, the maximum score is 133. The pre study i.e., base line data shows that score of Rajasika Guṇa is 101.26 with standard deviation of 8.28 in Intervention group where as the same for Control group is 102.97 and 7.93 respectively which show that the both groups are similar in Rajasika Guṇa before the study. The Mid study shows that there is 0.86% decrease in Rajasika Guṇa in Intervention group , 0.07% increase in Rajasika Guṇa in Control group. Similarly End study study shows that there is 1.69 % decrease in Intervention group where as 2.24% increase in Control group.

Table 7.22 - Changes in Rajasika Guṇa within each group during the study period

Group	Time factor	Significance (p value)
Yoga	Pre vs Mid	.463
	Pre vs End	.172
	Mid vs End	.577
Control	Pre vs Mid	1.000
	Pre vs End	0.052
	Mid vs End	0.004**

Table 7.22 shows changes in Rajasika Guṇa with in Intervention group and Control group during the study. It shows no change in Rajasika Guṇa from Pre study to Mid

study($p>.01$), Mid study to End study($p>.01$) and Pre study to End study ($p>.01$) in Intervention group . There is no significant change in Rajasika Guṇa from Pre study to Mid study($p>0.05$) and Pre study to End study ($p>.05$), but there is highly significant increase from Mid study to End study ($p<0.01$) in participants of Control group

Table 7.23- Changes in Rajasika Guṇa between groups during the study period

Time factor	Group	Significance (p value)
Pre	Y1 vs C1	.256
Mid	Y2 vs C2	.467
End study	Y3 vs C3	.582

Table 7.23 Shows the change in Rajasika Guṇa in Intervention group and Control group using between group through Oneway RMANOVA test . Pre study values shows that baseline data is matched means both the groups are identical. Mid study shows that there is no significant change in the Rajasika Guṇa in Intervention group compared to Control group ($p > .05$).End study shows that there is no significant change in the Rajasika Guṇa in Intervention group compared to Control group ($p > .05$).

Tamas

Table 7.24- Mean changes in Tamasika Guṇa during the study period

	Mean Y	Mean C	SD Y	SD C	Change Y	Change C
Pre	106.12	102.48	12.51	11.92		
Mid	99.12	101.08	13.02	12.63	-4.38%	-1.31%
End study	91.98	100.52	14.10	13.71	-13.04%	-1.92%

Table 7.24 represents the average changes in the Tamasika Guṇa in Intervention group and Control group. Since the total number of items in Tamasika Guṇa are 22 and scale points are seven, the maximum score is 154. The pre study i.e., base line data shows that score of

Tamasika Guṇa is 106.12 with standard deviation of 12.51 in Intervention group whereas the same for Control group is 102.48 and 11.92 respectively which show that the both groups are similar in Tamasika Guṇa before the study. The Mid study shows that there is 4.38 % decrease in Tamasika Guṇa in Intervention group, but only 1.31% decrease in Tamasika Guṇa in Control group. End study shows that there is 13.04% decrease in Intervention group where as it is only 1.92% in Control group. This clearly indicates the decrease of Tamasika Guṇa by 6.8 times more from Pre study of study to the End study of the study, in Intervention group than in Control group.

Table 7.25 - Changes in Tamasika Guṇa within each group during the study period

Group	Time factor	Significance (p value)
Yoga	Pre vs Mid	.001**
	Pre vs End	.001**
	Mid vs End	.001**
Control	Pre vs Mid	0.426
	Pre vs End	0.433
	Mid vs End	1.000

Table 7.25 shows changes in Tamasika Guṇa with in Intervention group and Control group during the study. It shows a continuous highly significant decrease in Tamasika Guṇa from Pre study to Mid study ($p<.01$), Mid study to End study($p<.01$) and Pre study to End study ($p<.01$) in Intervention group . There is no significant change in Tamasika Guṇa from Pre study

to Mid study ($p>0.05$), Mid study to End study($p>.05$) and Pre study to End study ($p>.05$) in Control group

Table 7.26 - Changes in Tamasika Guṇa between groups during the study period

Time factor	Group	Significance (p value)
Pre	Y1 vs C1	.035**
Mid	Y2 vs C2	.708
End	Y3 vs C3	.173

Table 7.26 Shows the change in Neuroticism in Intervention group and Control group using between group Oneway RMANOVA test . Pre study values shows that baseline data is not matched means both the groups are not identical. ($p< .05$) hence we couldn't see any significant changes in values of mid and post studies

7.4 Correlation between Big Five Personality dimensions and Guṇa Traya dimensions

One of the objectives of this research is to study the relationship between Big Five Personality dimensions and Guṇa Traya dimensions. The BFI and VPI are used three times(before study, middle of study,end of the study) to collect data from the participants to study changes in Big Five personality dimensions and Guṇas. This information is used to study the relationship between the Big Five personality dimensions by applying the Karl Pearson correlation test.

The following tables 7.27, 7.28, 7.29 shows the results of the correlation test.

Notes to tables 7.27,7.28,7.29:

1. ** indicates Correlation is significant at the 0.01level (2-tailed).
2. * indicates Correlation is significant at the 0.05 level (2-tailed).
3. O, C,E,A,N represent Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism dimensions of Big Five Personality model

4. S,R,T represent Sattva, Rajas and Tamas dimensions of Gunा Traya model

Table 7.27 -Pre Study- Correlation between Big Five Personality dimensions and Gunा Traya dimensions

		O	C	E	A	N
S	Correlation-r	.293	.237	.360	.452	-.248
	Significance-p	.003 **	.017 *	.001 **	.001 **	.012
R	Correlation-r	.298	.173	.214	.185	-.165
	Significance-p	.002 **	.084	.032 *	.064	.099
T	Correlation-r	-.133	-.188	-.381	-.178	.515
	Significance-p	.185	.060	.001 **	.075	.001 **

Table 7.27 shows that according to pre study data- Sattva has highly significant positive correlation with Openness to experience, Extraversion , Agreeableness and significant positive correlation with Conscientiousness. It shows that Rajas has highly significant positive correlation with Openness to experience and significant positive correlation with Extraversion. It shows that Tamas has highly significant negative correlation with Extraversion and highly significant positive correlation with Neuroticism.

Table 7.28 -Mid Study- Correlation between Big Five Personality dimensions and Gunा Traya dimensions

		O	C	E	A	N
S	Correlation-r	.500	.463	.449	.505	-.348
	Significance-p	.001 *	.001 **	.001 *	.001 **	.001 **
R	Correlation-r	.351	.202	.349	.102	.190
	Significance-p	.001 **	.042 *	.001 **	.309	.056
T	Correlation-r	-.153	-.191	-.323	-.105	.447
	Significance-p	.124	.055	.001 **	.296	.001 **

Table 7.28 shows that according to mid study data- Sattva has highly significant positive correlation with Conscientiousness, Agreeableness, significant positive correlation with Openness to experience, Extraversion and highly significant negative correlation with

Neuroticism.Rajas has highly significant positive correlation with Openness to experience, Extraversion and significant positive correlation with Conscientiousness.Tamas has highly significant negative correlation with Extraversion and highly significant positive correlation with Neuroticism.

Table 7.29- End Study - Correlation between Big Five Personality dimensions and Guṇa Traya dimensions

		O	C	E	A	N
S	Correlation-r	.585	.666	.498	.628	-.379
	Significance-p	.001 **	.001**	.001 **	.001**	.001**
R	Correlation-r	.276	.112	.424	.073	.093
	Significance-p	.005**	.262	.000 **	.469 **	.350 *
T	Correlation-r	-.259	-.352	-.487	-.264	.501
	Significance-p	.001**	.001 **	.001 **	.007 **	.001 **

Table 7.29 shows that according to End study data – Sattva has highly significant positive correlation with Openness to experience, Conscientiousness, Extraversion, Agreeableness and highly significant negative correlation with Neuroticism.Rajas has highly significant positive correlation with Openness to experience, Extraversion, Agreeableness and significant positive correlation with Neuroticism. Tamas has highly significant negative correlation with Openness to experience, Conscientiousness, Extraversion, Agreeableness and highly significant negative correlation with Neuroticism.

An overview of tables 7.27, 7.28 and 7.29 shows that:

Sattva shows positive correlation at very significant level with Agreeableness in all three studies. In two studies, Sattva shows positive correlation with Openness(pre,end), Conscientiousness(mid,end) and Extraversion(pre,end) at very significant level. In one study Sattva showed positive correlation with Openness(mid), Conscientiousness(pre) and

Extraversion(mid) at significant level. In two studies it shows negative correlation with Neuroticism at very significant level(mid, end).

Rajas shows highly significant positive correlation with Openness in all three studies. In two studies it shows highly significant positive correlation with Extraversion (mid, end) and in one study with Agreeableness(end). In one study it shows significant positive correlation with Extraversion(pre), Conscientiousness(mid) and Neuroticism(end).

Tamas shows highly significant positive correlation with Neuroticism in all three studies. It shows highly significant negative correlation with Extraversion in all three studies. In one study it shows highly significant negative correlation with Openness (end), Conscientious- ness (end), Agreeableness(end).

Further discussion follows on the above correlation study in chapter on Discussion (Chapter 8)

CHAPTER 8

DISCUSSION

The main purpose of the study , as discussed in Introduction(Chapter 1) is to study the effect of practice of Integrated Yōga Module by employees on personality and performance of employees. The Review of scientific literature (Chapter 3) proved the importance of Gunas and Big Five Personality dimensions in job performance. The results (Chapter 7) investigated the effect of the Integrated Yōga Module on Big Five Personality dimensions and Guṇa Traya dimensions. In this chapter, discussion is made on whether the aim and objectives of this study are fulfilled. In this chapter, firstly, discussion on results of effect of practice of Integrated Yōga by employees on Guṇas and Big Five Personality dimensions are made. Then a brief survey of literature on importance of the Guṇas and Big Five Personality dimensions is made. Then efforts are made to establish how changes in personality in employees during Intervention period can have an impact on their job performance. This chapter also discusses what could be the factors in Integrated Yōga Module which could bring changes in personality.

The tests were conducted three times- before the Yōga intervention(Pre study), in the middle of the Yōga Intervention(Mid study) and at the end of Yōga intervention(End study) by using two questionnaires viz., Big Five Personality Inventory and Vedic Personality Inventory. Results(chapter 7) show highly significant increase in four out of five of the Big Five Personality dimensions i.e., Openness to experience, Conscientiousness, Agreeableness and Emotional stability in Intervention group, compared to Control group. It also shows, with regard to Guṇas, highly significant increase in Sattva Guṇa and highly significant decrease in Tamasika Guṇa in Intervention group, compared to control group. It also shows results of correlation study

between Guṇas and Big Five dimensions. This chapter discusses whether the results prove or disprove the hypotheses of the study.

The study has three hypotheses as follows.

Hypothesis 1 : Practice of Integrated Yōga Module has impact on the Big Five Personality dimensions of employees assessed through Big Five Inventory

Hypothesis 2 : Practice of Integrated Yōga Module has impact on Guṇa Traya dimensions of employees assessed through Vedic Personality Inventory

Hypothesis 3 : There is relationship between Big Five Personality dimensions and Guṇa Traya dimensions assessed through Big Five Inventory and Vedic Personality Inventory

Let us discuss all Hypotheses

The first Hypothesis and first Null Hypothesis of the study are

Hypothesis 1 : Practice of Integrated Yōga Module has impact on the Big Five Personality dimensions of employees assessed through Big Five Inventory

Null Hypothesis 1 : Practice of Integrated Yōga Module has no impact on the Big Five Personality dimensions of employees assessed through Big Five Inventory

To test this Hypothesis we studied the effect of practice of Integrated Yōga by employees on Big Five Personality dimensions. The Big Five Personality dimensions are Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism. Effect of Integrated Yōga on each of these dimensions are discussed below:

8.1 Discussion on changes in Big Five personality dimensions

Openness to experience

Table 7.3(page 181) shows the changes in mean values of Openness to experience. It increased by 7.4 % and 14.8% in pre study and mid study respectively in Intervention group compared to that of 2% and 3% in Intervention group. RMANOVA test results in tables 7.4 and 7.5(page 182) also indicate continuous increase in Openness to experience in Intervention group, but not in Control group. It can mean that practice of Integrated Yōga can bring sustained changes in the Big Five personality dimension of Openness to experience.

In relation to job performance, the personality dimension of Openness to experience indicate Training proficiency(Jesus F. Salgado (1997),Broad minded and imaginative (Dollinger, Leoung, and Ulicni ,1996), Predicted unique variance in job performance (Mark N.Bing, John W.Lounsbury , 2000), Positive attitudes towards learning experiences in general(McCrae and Costa, 1986), Task performance and Creativity(S Rothmann et al, 2003), performance in high complexity jobs (Gouri Mohan & Zubin R.Mulla, 2013), Skill acquisition (Oakes et al, 2001), Better performance in unfamiliar environments (Bing &Lounsbury, 2000), higher levels of creativity when the ends and means to their task are ill-defined (George & Zhou, 2001), More cued in to environment and will be attentive to multiple influences while taking decisions (McElroy & Dowd, 2007), Divergent thinking (McCrae, 1987).

Thus from the above discussion of the results of study and survey of earlier studies regarding relationship between Openness to experience and Job performance, it may imply that practice of Integrated Yōga can improve the training proficiency, broad mindedness, imagination, creativity, skill acquisition, performance in unfamiliar environment or complex jobs, divergent thinking etc in the employees. These facets are quite essential in presently fast growing jobs like intellectual works, pilot projects, off site projects etc., This trait may also imply that employee can easily attune to diversities of work, culture and people. One can

perceive that the above mentioned qualities are more essential to new employees and to bring these qualities in them.

What could be the reason for this highly significant results in Openness to experience. One explanation can be that Practice of Yōga controls the disturbances of mind and helps to expand one to progress in *vijnanamaya kosha*. This could develop the intellectual abilities of a person(Rangan et al,2010). In daily practice of Integrated Yōga, after Deep Relaxation(DRT) is being practiced, excerpts from Gita are told to participants(named as Jnana Yōga, which is as earlier discussed, is a part of Integrated Yōga).Some of these excerpts relate to Openness to experience.

According to Mahadevan (2012) Gita suggests us to be open to experience to the world of dualities of good and bad experiences and yet focus on the non changing self. The “self” has a tendency to return to a natural state even after these disturbances. Therefore, all that a change management could do is to facilitate this process of returning to this natural state with less stress. Change by its very definition is something that is there only for a temporary period of time and is not there (Asat) afterwards. What is there permanently is called Sat. Nobody can shield themselves from the onslaught of changes, but can take steps to face it better as it unfolds. Contemplating on the notion of change and changelessness and developing a superior sense of discrimination between what is real and what is unreal is the divine prescription.

Practice of Yōga results in Brain Stilling and enables mind to expand it's horizon(Subhash Sharma, 2008) beyond it's earlier stored enduring patterns of thoughts, feelings, and the resulting behaviors. The above messages are given to the participants as part of Integrated Yōga program and they are asked to contemplate on them and when they

contemplate, it may be change their hitherto ideas of change and make them open to new experiences

Thus this empirical study proved that the first dimension of Big Five Personality viz., Openness to experience of employees can be improved by practice of Integrated Yōga.

Conscientiousness

The second dimension in Big Five Personality is Conscientiousness. The maximum change among the Big Five Personality dimensions is seen in Conscientiousness. Table 7.6(page 183) shows that it is increased by 9.6% and 18% at the time of Mid study and End study in Intervention group compared to that of 1.89% and 2.42% respectively in Control group. RM ANOVA tests in tables 7.7 and 7.8(page 184) also shows that there is highly significant and continuous improvement in Conscientiousness in Intervention group, but not in Control group during the study period.

In relation to job performance Conscientiousness indicate high self efficacy, develop greater job knowledge and produce more and better quality output, develop more positive beliefs about their capabilities to accomplish particular tasks (Chen, Casper et al , 1999), give extra effort and leadership, personal discipline, physical fitness and military bearing (McHenry, Hough, Toquam, Hanson, & Ashworth, 1990) , better Task performance (S.Rothman and E.P.Coetzer, 2003), negative correlation with an individual's propensity to withdraw from the job(Barrick and Mount, 1991), high correlation with effort exerted, affecting task performance through increased time on task (Mount and Barrick ,1995) , Conscientious sales representatives are more likely to set goals autonomously and to be more committed to their goal (Barrick, Mount, and Strauss , 1993), Less counterproductive behaviour at work, high integrity (Ones, Viswesvaran & Schmidt, 1993), High customer service orientation (Ones and Viswesvaran

,1996), High job satisfaction (Judge, Higgins, Thoresen, and Barrick ,1999), High job and life satisfaction(McCrae & Costa, 1991), More satisfied because they achieve a heightened sense of control and competence through their diligent and responsible behavior (Schmutte and Ryff , 1997). Studies show that it is a direct indicator of task performance(S.Rothman and E.P.Coetzer, 2003). Among all the Big five personality dimensions Conscientiousness is the most important performance indicator(Barrick et al, 1991). Thus practice of Integrated Yōga by employees can result in better performance in job.

What could be the component of Integrated Yōga Module which could cause improvement in Conscientiousness? One possible reason can be Surya Namaskar and Asanas. These bring muscle relaxation. This in turn can stimulate the sympathetic nervous system to work well in times of necessity and in a more productive way. Another reason could be that In daily practice of Integrated Yōga, after DRT is being practiced, excerpts from Gita are told to participants. Some of these excerpts relate to Conscientiousness.

An important definition of Yōga is ‘Yōgah karma sukausalam’ which means ‘Yōga is skill in action’. Description of Conscientiousness also indicate that it talks about skill in action. According to Mahadevan (2011) Yōga is working with mastery over knowledge of means and goals of work,Yōga is dexterity and skill in action, Yōga is working with proper order and industry, Yōga is working with focus on present activity rather than future results which depend on many external factors, Yōga is to work in a sustainable way of life and social order(Dharma),Yōga is work with out stress, Yōga is working one’s way to contentment, Yōga is to work with excellence in execution. Yōga is to work with the knowledge and abilities of - how to react to real time events, of change management, there is no state of ‘no work’, work is the only means for evolution of one self, engaging in work is always superior to no work, other

than the work itself, we have no locus of control on other aspects of work, work without attachment (what is in it for me) is bound to be always superior & fulfilling.

As explained earlier, DRT resulted in Brain stilling and These principles from Bhagavadgita are explained to the participants after their DRT as part of Jnana Yōga program, which can have an impact on enduring thoughts, beliefs and behaviours stored in the mind , which could bring a change in their mindset towards work.

Thus this study proved that the second dimension of Big Five Personality viz., Conscientious of employees can be improved by practice of Integrated Yōga. The survey of literature show the importance of Conscientiousness in job performance. Since Integrated Yōga improves Conscientiousness and Conscientiousness in turn improves Job performance, thus it may be implied that practice of Integrated Yōga improves Job performance.

Extraversion

The third Big Five Personality dimension is Extraversion. Among all the Big Five personality dimensions, Extraversion is least affected during the study period. Table 7.9(page 185) shows that it increased by 0.75% in Mid study and 3.06% in End study in Intervention group. In Control group it increased by 1.89% in Mid study and 2.42% in End study. In the Mid study more increase can be seen in Control group than in Intervention group and in End study more increase is seen in Intervention group than in Control group. Thus, unlike in case of other dimensions , this dimension has shown a mixed trend of change. However the changes in either case is only marginal. It may be possible to see more improvement in Extraversion if IYM is practiced for much longer time since better physical and mental well being created by practice of IYM may induce people friendly nature which could eventually lead to social relations.

Thus the above discussion concludes that there is no significant effect of Integrated Yōga practice on Extraversion

Agreeableness

The fourth Big Five Personality dimension is Agreeableness. Table 7.12(187) shows that it is increased by 4.44 % and 11.10 % in Mid study and End study respectively in Intervention group compared to that of 0.74 % and 0.01% in Control group. RMANOVA test results in tables 7.13 and 7.14(page 188) also indicate continuous increase in Openness to experience in Intervention group, but not in Control group. It could mean that practice of Integrated Yōga can bring sustained changes in the Big Five personality dimension of Agreeableness.

In relation to job performance, the personality dimension of Agreeableness indicate that employees are more compliant and confirming, good in teamwork or interpersonal interactions, with lesser deviant behavior (Stephen P.Robbins,2004), more job satisfaction (Judge, Heller, & Mount, 2002), substantial cooperative interaction (Witt et al, 2004), better customer service(Russel P.Guay et al, 2013), better Emotional Intelligence (Elisa Illarda,2006), better adoptability to change(Cooper, 1997), better inter personal team work and collective efficacy (Kevin Tasal et al, 2011), better in resolving conflicts or facilitate its resolution when it arises (Frederick, 2005).

How could this be possible? What component of Integrated Yōga Module enhances Agreeableness among participants of Intervention group? Integrated Yōga includes Bhakti Yōga. Bhakti implies surrender to the Almighty, accept and agree to everything , good or bad, as a gift given by God. According to Mahadevan (2011) Gita discusses the importance of being agreeable and cooperative for the progress of society and self. The spirit of sharing and unconditional giving (the virtue of Yajna) is the basis on which everything in the world sustains. The Gods bless the living beings with this virtue and in turn the living beings give back to the Gods. The

concept of mutual dependence is the corner stone behind ancient Indian living. Yajna way of living about sharing, giving back to the system and not organizing life in a pure “selfish” or “what is in it for me to enjoy” mode. If we take such an approach(Yajna approach) to work we will indeed be free of several layers of bondage that we ourselves have inflicted on us. Such an approach to work will take us to the pinnacle of what we need to achieve in life. It essentially means that the peace of mind and happiness for which we are struggling hard will indeed be ours.

As explained earlier, DRT resulted in Brain stilling and when these principles from Bhagavadgita are explained to the participants after their DRT as part of Jnana Yōga program, it can have an impact on enduring thoughts, beliefs and behaviours stored in the mind , which could bring a change in their mindset towards work.

Thus this proved that the fourth dimension of Big Five Personality viz., Agreeableness of employees can be improved by practice of Integrated Yōga. The survey of literature shows the importance of Agreeableness in job performance. Since Integrated Yōga improves Agreeableness and Agreeableness in turn improves Job performance, thus it may be implied that practice of Integrated Yōga improves Job performance.

Emotional Stability/ Neuroticism

The last dimension in Big Five Personality is Neuroticism. Second maximum change is observed in Neuroticism, among the Big Five personality dimensions. Neuroticism is many times referred to through it's inverse ‘Emotional Stability’. Table 7.15(page 189) shows that Neuroticism has decreased(Emotional Stability increased) by 7.9% in Mid study, 17% in End study in Intervention group where as for the Control group, the same is 1.9% and 2.4 %

respectively . ONEWAY RMANOVA test in table 7.16(page 189) and 7.17(page 190) also shows highly significant continuous improvement in the Emotional Stability.

Studies on importance of Emotional Stability explain it's relevance in job performance. Emotional stability resulted in Citizenship and Non counterproductive work behavior, Low turnover and absenteeism, Leadership and Entrepreneurship, Expatriate success, Earnings, Safety, Compliance, Healthy behaviors and longevity, Motivation, Job satisfaction, Commitment, Life satisfaction(Edwin A.Locke,2009) , lesser propensity to withdraw from the job(Barrick and Murray,1991), reduce workforce instability due to excessive absenteeism, tardiness, even turnover (Zimmerman , 2008) , Team performance(Barrick et al , 1998), Job dedication , Interpersonal facilitation, Citizenship behaviors at work (Hurtz and Donovan , 2000), Lesser accidents, Customer orientation (Hogan et al, 1984), giving extra effort and leadership(McHenry et al, 1990), Leader emergence and leader effectiveness (Judge et al , 2002), better performance as expatriates (Mol et al, 2005), maintain focus and concentration on the task at hand especially under stress or in crisis situations (Kanfer and Heggestad, 1997), Job satisfaction and Job performance (E.Bano,2001),

To the best of researcher's knowledge no earlier study has been done to evaluate the effect of any Yōga practice on Big Five Personality dimensions. However, effect of Yōga practices on aspects like Emotional Intelligence(EI), Emotional Competence(EC), Emotional Quotient(EQ), Anxiety, Stress, Job Burnout etc., have been studied. Sony Kumari(2008) made a study to assess the effect of Yōga practice on EI and EC and between Intervention and Control groups, the results showed highly significant increase in EI in Intervention group. Significant improvement in pre-post values occurred in all EC sub scales in Yōga Intervention group, but

not in Control group. The above results are in conformity with the results of the present study. Thus we may infer similarities between Emotional Stability and Emotional Competence.

Hasmukh Adhia(2009) study deals with impact of adoption of Yōga way of life on the organizational factors responsible for success of the organization. It is established in the study that by practice of IYM , Emotional Intelligence can be enhanced and Job Burnout can be reduced. The study further stated that Emotional Intelligence is positively correlated with Job Satisfaction, Goal Orientation, Affective Organisational Commitment and Organisational Citizenship Behaviour. According to the researcher, a conceptual analysis can also show that the above factors i.e, Goal Orientation, Affective Organisational Commitment and Organisational Citizenship Behavior, Job satisfaction are either facets or results of Conscientiousness and / or Emotional Stability.

Study by Ghansham Tikepat(2011) showed significant increase in Emotional Quotient in Yōga Intervention group. The results are similar to our studies on Emotional Stability. Vempati R.P and Telles S (1999) stated that practice of Yōga reduced anxiety and depression. Subramanya P and Telles S (2009) stated that practice of Yōga improves concentration and reduces anxiety. Khemka S S et al (2009) stated that practice of Yōga reduces anxiety. All these studies are in confirmation with the present study result of increase in Emotional stability or decrease in Neuroticism.

What component of IYM could have caused such highly significant improvement in Emotional Stability. The Yōga intervention included Surya Namaskar and Asanas, Pranayama, DRT, Lectures on Yōga way of life. Stimulation and relaxation of Mind and Body is the essence

of Yōga(Nagendra and Nagaratna, 1988). Alex Korb, a Neuro Scientist explained the neuro biological mechanism of how Asanas influence the mental Body - Mind system, as follows.

“ It is your attempts to remain calm during this stress that create Yōga's greatest neurobiological benefit. Your brain tends to react to discomfort and disorientation in an automatic way, by triggering the physiological stress response and activating anxious neural chatter between the prefrontal cortex and the more emotional limbic system. The stress response itself increases the likelihood of anxious thoughts, like "Oh god, I'm going to pull something," or "I can't hold this pushup any longer". And in fact, your anxious thoughts themselves further exacerbate the stress response. Interestingly, despite all the types of stressful situations a person can be in (standing on your head, running away from a lion, finishing those TPS reports by 5 o'clock) the nervous system has just one stress response. The specific thoughts you have may differ, but the brain regions involved, and the physiological response will be the same. The physiological stress response means an increase in heart rate, breathing rate, muscle tension and elevation of cortisol and other stress hormones. The fascinating thing about the mind-body interaction is that it works both ways. For example, if you're stressed, your muscles will tense (preparing to run away from a lion), and this will lead to more negative thinking. Relaxing those muscles, particularly the facial muscles, will push the brain in the other direction, away from stress, and toward more relaxed thoughts. Similarly, under stress, your breathing rate increases. Slowing down your breathing pushes the brain away from the stress response, and again toward more relaxed thinking. So how does this all fit together? As I stated before, the stress response in the nervous system is triggered reflexively by discomfort and disorientation. The twisting of your spine, the lactic acid building up in your straining muscles, the uneasy feeling of being upside down, the inability to breathe, are all different forms of discomfort and

disorientation, and tend to lead reflexively to anxious thinking and activation of the stress response in the entire nervous system. However, just because this response is automatic, does not mean it is necessary. It is, in fact, just a habit of the brain. One of the main purposes of Yōga is to retrain this habit so that your brain stops automatically invoking the stress response”

(Source: <https://www.psychologytoday.com/blog/prefrontal-nudity/201109/Yoga-changing-the-brains-stressful-habits>)

During the Surya Namaskar and Asanas, the above mechanism functions and habituates the mind towards stability. Nagendra and Nagaratna(1988) state that practice of Pranayama controls the emotional disturbances of mind. DRT improves Emotional Competency(Sony Kumari,2008) . The message of Gita on *Sthitha prajnatha* is very similar to Emotional Stability and after DRT and during monthly Jnana Yōga lectures, these concepts are explained to participants. It is possible that all these activities resulted in highly significant improvement in Emotional Stability.

Thus this empirical study proved that the fifth dimension of Big Five Personality viz., Emotional Stability of employees can be improved by practice of Integrated Yōga. The survey of literature shows the importance of Emotional Stability in job performance. Since Integrated Yōga improves Emotional Stability and Emotional Stability in turn improves Job performance, thus it may be implied that practice of Integrated Yōga improves Job performance.

The above discussion on effect of practice of IYM on Big Five Personality show highly significant results in improving the personality dimensions except Extraversion. This is in conformity with studies of Brent Roberts (2012) that Big Five personality dimensions can be

changed through out the adulthood. However, it is important that the participants should continue the practice of IYM as a part of their life to reap its benefits in a sustainable way.

The first Hypothesis and first Null Hypotheses of the study are

Hypothesis 1 : Practice of Integrated Yōga Module has impact on the Big Five Personality dimensions of employees assessed through Big Five Inventory

Null Hypothesis 1 : Practice of Integrated Yōga Module has no impact on the Big Five Personality dimensions of employees assessed through Big Five Inventory

From the above discussion it is clear that Hypothesis 1 is proved and Null Hypothesis 1 is disproved.

The Second Hypothesis of the study is

Hypothesis 2 : Practice of Integrated Yōga Module has impact on Guṇa Traya dimensions of employees assessed through Vedic Personality Inventory

Null Hypothesis 2 : Practice of Integrated Yōga Module has no impact on Guṇa Traya dimensions of employees assessed through Vedic Personality Inventory

Guṇa Traya dimensions of Sattva Guṇa, Rajasika Guṇa and Tamasika Guṇa are assessed through Vedic Personality Inventory. The effect of practice of IYM by employees on each Guṇa are discussed below.

8.2 Discussion on changes in Guṇas

Sattva Guṇa

Among all the three Guṇas, maximum change is seen in Sattva Guṇa. Table 7.18(page 191) shows that it is increased by 6.11% in Mid study and by 13.7% in End study in Intervention group where as the same is 2.83% and 2.75% respectively in Control group. The RMANOVA test in tables 7.19(page 191) and 7.20(page 192) also shows that Sattva Guṇa increased continuously in Intervention group, but not in Control group. It indicates that Sattva Guṇa can be improved and sustained by practice of Yōga as stated in ancient as well as modern literature. According to scriptures Sattva is a divine trait(*daivi Guṇa*) and Swamy Vivekananda stated that each soul is potentially divine and that divinity can be manifested through practice of Integrated Yōga.

Rajasika Guṇa

According to table 7.21(page 192) Rajasika Guṇa has shown a marginal decrease of 0.086% in Mid study and 1.69% in End study in Intervention group compared to 0.07% decrease in Mid study and 2.24% increase in End study in Control group. While Intervention group has shown continuous, though marginal decrease , Control group has shown a mixed trend of a marginal decrease in Mid study and a small increase in End study. RMANOVA test in tables 7.22(page 193) and 7.23(page 194) indicate no significant changes in Rajasika Guṇa

Tamasika Guṇa

According to table 7.24(page 194) Tamasika Guṇa has shown a continuous decrease of 4.38 % in Mid study and 13% in End study in Intervention group where as the same has decreased by

1.3% and 1.9% respectively in Control group. RMANOVA tests in tables 7.25(page 195) and 7.26(page 196) also show a similar trend of decrease in Tamasika Guṇa in Intervention group, but not in Control group. It indicates that Tamasika Guṇa can be reduced by practice of IYM.

Earlier some studies were made to study the effect of Yōga practices on Guṇas. Important among them are as follows.

Training in Jnana Yōga will enable executives and students to view a managerial problem or conflict - episode in an illuminated perspective with greater detachment and objective clarity of Sattva(Chakraborty , 1987). Wolf and Abell (2003) showed that Japam is effective in bringing positive human changes. Japam of the mahamantras increased Sattva and decreased stress, depression and Tamas. Bhushan, Siddhartha(2007) found that practice of Yōga Nidra increased the level of Sattva Guṇa and significantly decreased the level of Rajas and Tamas Guṇas in the practicing female subjects in comparison to their control group. Tikhe Sham Ganpat (2011) made a study on Efficacy of SMET program on Managerial Effectiveness. It showed a significant improvement in Emotional Quotient of participants. There was significant decrease in Rajas and Tamas where as there is significant increase in Sattva of participants. Sudhir Deshpande (2009) in a randomized control trial of the effect of Yōga on personalities of 226 people stated that practice of Yōga develops Sattva Guṇa(balanced personality). The study did not show significant reduction in Tamas in Yōga intervention but is shown in Control group which did physical exercise.

The above studies on effect of Yōga practices on Guṇas are in conformity with the present study.

The literature survey shows the importance of Guṇas on job performance. Sattva Guṇa enhances transformational leadership whereas Tamasika Guṇa reduces transformational leadership(Kejriwal and Krishnan, 2004) , Sattva Guṇa works at self actualization level, Rajasika Guṇa at esteem where as Tamasika Guṇa at only the basic needs level(Daftuar and Sharma ,1997). Sattva at the level of the cognition is perfect knowledge, Rajas is clouded intellect and Tamas is ignorance (Das, 1955), three Sattva dimensions (sympathy, motivation to work and accepting pain) enhance transformational leadership , transformational leadership was positively related to Sattva and not Rajas Guṇa (Narayanan and Krishnan ,2003). Sattvic and Rajasic persons were almost equal in their job involvement, Tamasic workers had a significantly lower level of job involvement(Elankumaran , 2004). TriGuṇas are related to Transformational Leadership, Job Involvement, Organisational Climate (Kiran Kumar, 2013). Tamas is negatively and Sattva is positively correlated with psychological well-being(Rastogi ,2004). Sattva Guṇa enhances work ethics, personal effectiveness, self-actualising behaviour, organisational effectiveness, true understanding of facts and events(Kaur and Sinha , 1992). Sattvic personality performs better than Rajasic and Tamasic personalities(Mathew, 2010).In service management, Rajas and Sattva Guṇas in people result in effective work (Biswas , 2010). Sattva Guṇa and Rajasika Guṇa which have transformational leadership potentials whereas Rajasika and Tamasika Guṇa have negative influence on management(Ammineedu, 2009).

The literature survey explained the effect of Guṇas on aspects relating to performance of employee and / or organization. The present study found that practice of Integrated Yōga increases Sattva Guṇa and reduces Tamasika Guṇa. From these two points it may be implied practice of Integrated Yōga enhances Sattva Guṇa and reduces Tamasika Guṇa , which in turn may result in the following.

1. Enhances transformational leadership
2. Promotes self actualization
3. Promotes perfect knowledge and reduce ignorance
4. Improves sympathy, motivation to work and withstand pain
5. Promotes job involvement
6. Improves the ability to view a managerial problem or conflict –episode with greater detachment and objective clarity
7. Enhances organizational climate
8. Enhances psychological well being
9. Improves work ethics, personal effectiveness, organizational effectiveness, better understanding of facts and events
10. Effective performance in service management

The second hypothesis and null hypothesis of the present study is

Hypothesis 2 : Practice of Integrated Yōga Module has impact on Guṇa Traya dimensions of employees assessed through Vedic Personality Inventory

Null Hypothesis 2 : Practice of Integrated Yōga Module has no impact on Guṇa Traya dimensions of employees assessed through Vedic Personality Inventory

The study has proved the Hypothesis 2 and disproved the Null Hypothesis 2

The third hypothesis of the study is

Hypothesis 3 : There is relationship between Big Five Personality dimensions and Guṇa Traya dimensions assessed through Big Five Inventory and Vedic Personality Inventory

To test this hypothesis, Karl Pearson Correlation test (2-tailed) is used. Tables 7.27(page 197), 7.28(page 197), 7.29(page 198) show the relationship of each of the Guṇas(rows) with Big Five Personality dimensions- Openness to experience, Conscientiousness, Extraversion, Agreeableness, Neuroticism(OCEAN) as follows :

8.3 Discussion on relationship between Big Five personality dimensions and Guṇas

Sattva Guṇa with OCEAN

1. with Openness to experience, it has highly significant correlation in pre study, mid study and end study (in all three studies, highly significant correlation)
2. with Conscientiousness, it has significant correlation in pre study, highly significant correlation with mid study and end study
3. with Extraversion, it has highly significant correlation in pre study, mid study and end study (in all three studies, highly significant correlation)
4. with Agreeableness, it has significant correlation in pre study, mid study and end study(in all three studies, highly significant correlation)
5. with Neuroticism, no significant correlation in pre study, highly significant negative correlation in mid study and end study

Therefore , in general terms it can be said that Sattva has highly significant positive correlation with Openness to experience, Extraversion and Agreeableness , good positive correlation with Conscientiousness and negative correlation with Neuroticism

Rajas with OCEAN

1. with Openness to experience, highly significant correlation in pre study, mid study and end study (Highly significant positive correlation in all studies)
2. with Conscientiousness, no significant correlation in pre study, significant correlation in mid study, no significant correlation in end study
3. with Extraversion, highly significant correlation in pre study, mid study and end study (Highly significant positive correlation in all studies)
4. with Agreeableness, no significant correlation in pre study and mid study, highly significant correlation in end study
5. with Neuroticism, no significant correlation in pre study, mid study and significant correlation in end study

Therefore, it can be observed Rajas has highest positive correlation with Extraversion followed by Openness to experience. Compared to Sattva it has lesser correlation with other dimensions.

Tamas with OCEAN

1. with Openness to experience, no significant correlation in pre study, mid study, highly significant correlation in end study
2. with Conscientiousness, no significant correlation pre study, mid study, highly significant correlation in end study
3. with Extraversion highly significant correlation in pre study, mid study and end study

4. with Agreeableness no significant correlation in pre study, mid study , highly significant correlation in end study
5. with Neuroticism highly significant correlation in pre study,mid study and end study.

Therefore it can be observed that Tamas has shown highly significant correlation with Neuroticism, followed by Extraversion

Overview of relationship between Guṇas(Sattva,Rajas,Tamas) and Big Five Personality dimensions(OCEAN)

While a definite, one- to-one relation is hard to observe , the following observations can be made

1. Tamas has always shown a highly significant positive correlation with Neuroticism. Tamas shown such a relation with Extraversion too but , since Extraversion has shown significant correlation with Sattva and Rajas too, Extraversion is not considered to have an exclusive relation with Tamas. But since Neuroticism has shown Highly significant positive correlation exclusively with Tamas, we can conclude that Tamas and Neuroticism are very similar
2. Rajas has shown highly significant positive correlation in all studies with Openness to experience and Extraversion. But Sattva also has shown such a relation with Openness to experience and Extraversion. So definite relation can not be concluded between Rajas and any Big Five Personality dimensions

3. Sattva has shown, in all three studies, highly significant correlation with Openness to experience, Extraversion and Agreeableness and in two studies with Conscientiousness. Since Extraversion has shown such a relation with Rajas too, it is excluded from conclusion. Thus we can conclude that Sattva is very similar to Agreeableness(high correlation in three studies) followed by Conscientiousness(high correlation in two studies). Sattva has always shown a highly significant negative correlation with Neuroticism. This supports the basic premise of the Guṇa theory that Tamas is the lowest(heinous) quality, where as Sattva is the highest quality of human beings.
4. One significant observation can be that Sattva has positive correlation with all four Big Five Personality dimensions which improves job performance(Openness to experience, Conscientiousness, Extraversion, Agreeableness) where as it has negative correlation with Neuroticism which deteriorates job performance. Hence we can conclude that Increase of Sattva itself causes improvement in job performance.

The third hypothesis of the study is

Hypothesis 3 : There is relationship between Big Five Personality dimensions and Guṇa Traya dimensions assessed through Big Five Inventory and Vedic Personality Inventory

Null Hypothesis 3 : There is no relationship between Big Five Personality dimensions and Guṇa Traya dimensions assessed through Big Five Inventory and Vedic Personality Inventory

The above study has proved the Hypothesis 3 and disproved the Null Hypothesis 3

8.4 Principles of Yōga way of work life

A major motivating factor to the researcher to make this study is observation and experience of many problems in present style of work life. The researcher wants to study if any good solutions are available for these probems of modern life in ancient knowledge. Accordingly ideas taken from the scriptures are summarized as principles for Yoga way of work life,which are discussed in Appendix 12.

Conclusion:

This chapter discussed how the present empirical study has shown that practice of Integrated Yōga has an impact on the Big Five personality dimensions and Guṇas. The chapter made a brief survey of earlier studies(elaborate discussion is made in chapter 2) about impact of Big Five personality dimensions and Guṇas on job performance. Thus, it shows how practice of Integrated Yōga helps to improve job performance. The chapter also discuss the principles of Yōga way of work life, which may be propagated to young working people.