

CHAPTER 4: **Result**

The study has hypothesized that PsyCap and its dimensions would affect workplace emotions and workplace behaviors. In order to test the hypotheses, the data was subjected to correlation, ANOVA and ANCOVA. All the data that was collected, was treated with confidentiality. The tools for PsyCap, OCB, CWB, WE and EL were scored making sure that the negatively worded items were reverse scored wherever applicable. The composite scores for each of the dimensions of PsyCap, OCB, CWB, WE and EL were then generated. The data was subjected to following analysis as shown in Table 4-1

*Table 4-1 Analysis Plan*

	Scores of	Analysis
1	PsyCap OCB CWB WE EL	To understand the relation between PsyCap and outcome variables, correlation coefficients were computed among all the dimensions of these scores
2	OCB CWB WE EL	To understand the effect of PsyCap, regression coefficients were computed for all the dimensions with PsyCap dimensions as the predictors
3	OCB CWB WE EL	To understand the differences between High and low PsyCap employees, an independent samples t test to compare the employees from top quartile PsyCap scores with the employees from bottom quartile PsyCap scores on outcome variables
4	PsyCap OCB CWB WE EL	To understand the relationship between difference in different socio demographic variables ANOVA was used
5	Pre Post and Follow up of PsyCap, OCB, CWB, WE and EL	To understand the change in scores due to targeted intervention ANCOVA was used with Pre-intervention scores as covariates

Hypothesis H1 explores the relationship between PsyCap and OCB. Correlational analyses were used to examine the relationship between PsyCap dimensions and OCB facets.

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Results indicated a positive significant relationship between OCB facets, sportsmanship and civic virtue and PsyCap efficacy and PsyCap optimism. This suggests that efficacious employees are likely to tolerate minor inconveniences and optimistic employees would manage the minor irritations and work in the interest of their organization. Thus, we can conclude that high PsyCap employees may not be very helpful but may display civic virtues and sportsmanship behaviors.

Hypothesis H2 explores the relationship between PsyCap and CWB. A look at the correlation matrix also suggests that PsyCap is negatively correlated to CWB with all its dimensions having a negative correlation coefficient between  $-.20$  to  $-.07$  (Please see *Table 4-2*). This inverse correlation leads us to the conclusion that higher the PsyCap, lesser are the behaviors which hurt colleagues and the organization as a whole.

A look at the correlation matrix suggests that PsyCap is significantly correlated to WE, with all its dimensions having a correlation coefficient in the range of  $.30$ 's. This upholds Hypothesis H3, which said that PsyCap will affect WE positively. Thus, one can conclude that higher PsyCap efficacy, hope, resilience and optimism supports an employee's vigor, dedication and absorption.

Hypothesis H4 explored the relation between PsyCap and EL. PsyCap dimensions are significantly correlated with all dimensions of EL except surface acting. Only surface acting is negatively correlated. The strongest correlation amongst the dimensions of PsyCap and EL is between resilience and emotional consonance. Employees reporting high levels of efficacy also reported high levels of emotional consonance. Thus, one can conclude that higher the PsyCap, higher is emotional consonance and deep acting.

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*Table 4-2 Relationship between PsyCap Dimensions and Workplace Behaviours and Workplace Emotions*

	Efficacy	Hope	Resilience	Optimism	PsyCap	Work Eng	Vigor	Dedic	Absor	Emo Lab	Surf Act	Deep Acting	EC	ES	OCB	Help	Sports	Civic Virt	CWB	CWB I	CWB O
Efficacy	1																				
Hope	.57**	1																			
Resilience	.46**	.49**	1																		
Optimism	.34**	.30**	.30**	1																	
PsyCap	.70**	.71**	.70**	.63**	1																
Work Eng	.39**	.45**	.42**	.32**	.56**	1															
Vigor	.33**	.37**	.40**	.19**	.37**	.68**	1														
Dedi	.38**	.50**	.31**	.28**	.45**	.79**	.63**	1													
Absor	.28**	.27**	.28**	.15**	.32**	.82**	.52**	.49**	1												
EL	.03	.05	.18**	.09*	.15**	.15**	.12**	.09*	.04	1											
Surf Act	-.11*	-.06	-.02	-.07	-.06	-.07	-.07	-.06	-.11*	.72**	1										
DA	.09*	.12**	.23**	.04	.14**	.17**	.21**	.15**	.10*	.74**	.36**	1									
EC	.21**	.12**	.25**	.17**	.26**	.22**	.18**	.17**	.11*	.58**	.18**	.36**	1								
ES	.05	.04	.15**	.13**	.10*	.15**	.20**	.12**	.08	.65**	.18**	.38**	.38**	1							
OCB	.10*	-.03	-.01	.18**	.11**	.10*	-.03	.05	.09*	-.04	-.02	-.08	.06	-.08	1						
Help	.06	-.05	-.04	.07	-.00	-.02	-.08	-.02	.03	-.06	-.01	-.06	.01	-.06	.93**	1					
Sports	.15**	.06	.03	.20**	.14**	.15**	.18**	.16**	.10*	-.08	.12**	-.07	.08	-.01	.52**	.28**	1				
Civic Virtue	.08	-.03	-.03	.10*	.02	.02	-.05	.02	.08	-.05	.01	-.06	.02	-.11*	.87**	.83**	.29**	1			
CWB	-.20**	-.18**	-.17**	-.07	-.16**	-.19**	-.22**	-.20**	-.16**	.07	.22**	-.06	-.04	-.09*	.01	.01	-.09*	.00	1		
CWB I	-.17**	-.14**	-.13**	-.10*	-.16**	-.22**	-.19**	-.20**	-.19**	.02	.19**	-.06	-.04	.13**	-.01	.02	-.10*	.02	.89**	1	
CWB O	-.19**	-.19**	-.18**	-.09*	-.21**	-.21**	-.19**	-.19**	-.14**	.06	.21**	-.04	-.06	-.05	-.01	.02	-.07	.00	.94**	.71**	1

\*\* Correlation is significant at the 0.01 level (2 tailed)

\* Correlation is significant at the 0.05 level (2 tailed)

#### 4.1 Effect of PsyCap on Organizational Citizenship Behavior

In order to test whether and to what extent PsyCap affects OCB, the data was subjected to correlation and regression analysis. Hypothesis H1 proposed that PsyCap dimensions will affect Organizational Citizenship Behaviours (OCB) displayed by employees positively. *Table 4-2* suggests that there is a significant correlation between PsyCap and OCB and sportsmanship. In this relation between PsyCap and overall OCB, efficacy and optimism contribute to a significant extent. In case of sportsmanship, PsyCap efficacy and optimism are significantly related. Civic virtue and optimism are also significantly related. To further explore to what extent the PsyCap dimensions explain the variation in OCB, a regression analysis was performed. The results of the regression analysis are displayed in *Table 4-3*.

*Table 4-3 Contribution of PsyCap Dimensions on Organizational Citizenship Behavior*

(*n* = 535)

PsyCap	Helping			Sportsmanship			Civic Virtue		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	.41	.13	2.42*	.18	.14	2.67*	.15	.13	2.32*
Hope	-.37	-.12	2.20*	-.05	-.04	-.75	-.13	-.10	1.83
Resilience	-.19	-.06	1.21	-.09	-.07	-1.40	-.08	-.07	1.27
Optimism	.27	.08	1.72	.26	.19	4.09**	.14	.10	2.22*
F		3.05*			7.78**			3.30*	
R		.15			.24			.16	
R <sup>2</sup>		.02			.06			.02	
Adj R <sup>2</sup>		.02			.05			.02	

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Table 4-3 suggests that there is a relationship between a participant's PsyCap and OCB. Changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in organizational citizenship behavior (helping, sportsmanship and civic behavior) scores. The linear regression model explained 2%, 5% and 2% of the overall variance in helping, sportsmanship and civic behavior respectively. When we look at the individual components of PsyCap and significance of their t scores, it suggests that efficacy significantly contributes to the explanation of helping, sportsmanship and civic behavior. Hope significantly contributes to the explanation of helping but in a negative way. Optimism contributes significantly to sportsmanship and civic virtue.

Since the study involved participants from different sectors, it was interesting to analyze if there were sectoral differences in explaining the variance in OCB. The data was collected from organizations belonging to different sectors. These were:

1. Industrial and Commercial Services sector
2. Manufacturing sector
3. Healthcare sector
4. Pharmaceutical manufacturing and research sector

It was speculated that the kind of sector that the participants belonged to, would influence the impact of PsyCap on workplace behaviors and emotions. The following section presents the regression analysis in OCB for different sectors. Table 4-4 presents the regression analysis of PsyCap dimensions on OCB (helping, sportsmanship and civic virtues) in the Industrial and Commercial Services sector.

*Table 4-4 Contribution of PsyCap components to Organizational Citizenship Behavior in Industrial and Commercial Services Sector*

*(n = 158)*

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PsyCap	Helping			Sportsmanship			Civic Virtue		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	-.01	-.01	.06	.01	.01	.12	.15	.18	1.69
Hope	-.04	-.02	.23	.05	.05	.46	-.04	-.05	.43
Resilience	.24	.15	1.54	-.02	-.01	-.14	.06	.07	.67
Optimism	.08	.04	.45	.14	.11	1.25	.01	.01	.14
F		.904			.701			1.634	
R		.15			.13			.20	
R <sup>2</sup>		.02			.02			.04	
Adj R <sup>2</sup>		-.002			-.008			.02	

\*  $p < .05$ ; \*\* $p < .01$

Table 4-4 shows that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were not able to explain the variance in variance in OCB in industrial and commercial services sector.

Table 4-5 presents the regression analysis of PsyCap dimensions on OCB components helping sportsmanship and civic virtues in the manufacturing of goods sector.

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*Table 4-5 Contribution of PsyCap components to Organizational Citizenship Behaviour in Manufacturing goods sector*

(*n*=157)

PsyCap	Helping			Sportsmanship			Civic Virtue		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	.19	.09	.80	-.06	-.05	-.46	-.07	-.06	-.54
Hope	-.23	-.11	-.99	-.01	-.01	-.07	-.007	-.007	-.06
Resilience	.30	.15	1.55	.06	.53	.54	.13	.13	1.33
Optimism	.23	.10	1.10	.22	.16	1.76	.16	.13	1.52
F		1.607			1.006			1.373	
R		.202			.16			.19	
R <sup>2</sup>		.04			.03			.04	
Adj R <sup>2</sup>		.02			.00			.01	

\*  $p < .05$ ; \*\* $p < .01$

As Table 4-5 shows, in the manufacturing goods sector, PsyCap dimensions (Efficacy, Hope, Resilience and Optimism) scores were not able to explain the variance in variance in OCB (helping, sportsmanship and civic virtues) scores.

Table 4-6 presents the regression analysis of PsyCap dimensions on OCB components vigor dedication and absorption in the healthcare sector.

*Table 4-6 Contribution of PsyCap Components to Organizational Citizenship Behavior in Healthcare sector*

(*n* =139)

PsyCap	Helping			Sportsmanship			Civic Virtue		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	-.41	-.15	1.53	.33	.20	2.14*	-.23	-.22	2.32*

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PsyCap	Helping			Sportsmanship			Civic Virtue		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Hope	-.04	-.01	.15	.24	-.13	-1.45	-.06	-.05	.56
Resilience	-.12	-.04	.40	.20	-.11	-1.15	-.12	-.10	1.05
Optimism	-.17	-.06	.65	.41	.25	2.78**	.11	.10	1.10
F		1.413			3.695**			2.79*	
R		.20			.32			.28	
R <sup>2</sup>		.04			.10			.08	
Adj R <sup>2</sup>		.01			.07			.05	

\*  $p < .05$ ; \*\* $p < .01$

In the healthcare sector, PsyCap dimensions (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in variance in sportsmanship and civic virtues components of OCB as seen in Table 4-10. The linear regression model explained 7% of the overall variance in sportsmanship of nurses and 5% of civic virtue displayed by nurses. When we look at the individual components of PsyCap and significance of their t scores, it suggests that efficacy and optimism significantly contribute to the explanation of sportsmanship among the nurses in healthcare sector, while efficacy significantly contributes to the explanation of civic virtues being displayed by nurses.

Table 4-7 presents the regression analysis of PsyCap dimensions on OCB components helping, sportsmanship and civic virtue in the pharmaceutical and medical research sector.

*Table 4-7 Contribution of PsyCap Components to Organizational Citizenship Behavior in Pharmaceutical and Medical Research sector*

( $n = 81$ )



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PsyCap	Helping			Sportsmanship			Civic Virtue		
	B	$\beta$	t	B	$\beta$	t	B	B	t
Efficacy	.24	.10	.82	-.08	-.06	.46	.22	.19	1.47
Hope	-.06	-.03	.21	.03	.02	.20	-.05	-.05	.39
Resilience	.28	.12	.98	-.14	-.10	.84	.14	.12	.95
Optimism	.17	.08	.64	.47	.36	3.01**	-.05	-.04	.34
F		.932			2.34			.919	
R		.22			.33			.22	
R <sup>2</sup>		.05			.11			.05	
Adj R <sup>2</sup>		-.003			.06			-.004	

\*  $p < .05$ ; \*\* $p < .01$

In the Pharmaceutical and Medical research sector, PsyCap dimensions (Efficacy, Hope, Resilience and Optimism) scores were not able to explain the variance in OCB (helping, sportsmanship and civic virtues) scores. Looking at Tables 4-3 to 4-6, one can say that PsyCap dimensions explain the variance in healthcare sector only and that too in the sportsmanship and civic virtue dimension. PsyCap efficacy and PsyCap optimism explain the variance in sportsmanship in healthcare sector. PsyCap efficacy explain the variance in civic virtues displayed by nurses. Although in PsyCap components fail to explain the variance in OCB in other sectors, in Pharmaceutical research sector, optimism explains the variance in sportsmanship.

### 4.2 Effect of PsyCap on Counterproductive Workplace Behavior

A look at the correlation matrix suggests that PsyCap is significantly correlated to CWB ( $r = -.16$   $p < .001$ ) with both its dimensions having negative correlations of  $-.16$  ( $p < .001$ ) and  $-.21$  ( $p < .001$ ) This upholds Hypothesis H2, which said that PsyCap will affect CWB negatively. PsyCap dimensions are negatively significantly correlated with both

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dimensions of CWB although the strength of the relationship is not very high. To understand the explanatory power of PsyCap dimensions, a regression analysis was conducted. Table 4-8 presents the regression analysis of PsyCap dimensions on CWB I and CWB O

*Table 4-8 Effect of PsyCap Dimensions on Counterproductive Workplace Behaviors*

(*n* = 535)

PsyCap	CWB I			CWB O		
	B	$\beta$	t	B	$\beta$	T
Efficacy	-.09	-.11	1.90*	-.12	-.09	1.72
Hope	-.04	-.05	.83	-.11	-.09	1.63
Resilience	-.05	-.05	1.06	-.12	-.09	1.8
Optimism	-.03	-.03	.61	-.002	-.002	.03
F		4.6**			7.04**	
R		.18			.23	
R <sup>2</sup>		.03			.05	
Adj R <sup>2</sup>		.03			.04	

Table 4-8 confirms that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in counterproductive work behavior (individual and organization) scores thus supporting Hypothesis H2. The linear regression model explained 3% and 4% of the overall variance in individual and organization counterproductive work behavior respectively. When we look at the individual components of PsyCap and significance of their t scores, it suggests that efficacy significantly contributes to the explanation of individual counterproductive work behavior.

The following section presents the regression analysis for different sectors. Table 4-9 presents the regression analysis of PsyCap dimensions on CWB (individual and

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organizational counterproductive workplace behaviors) in the Industrial and Commercial Services sector.

*Table 4-9 Contribution of PsyCap components to Counterproductive Workplace Behavior in Industrial and Commercial Services sector*

(*n* = 158)

PsyCap	CWB I			CWB O		
	B	$\beta$	T	B	$\beta$	t
Efficacy	.009	.01	.12	.11	.12	1.19
Hope	-.11	-.15	1.43	-.31	-.33	3.35**
Resilience	-.05	-.07	.77	-.19	-.19	2.11*
Optimism	-.04	-.05	.57	.03	.03	.30
F		1.786			6.699**	
R		.21			.39	
R <sup>2</sup>		.05			.15	
Adj R <sup>2</sup>		.02			.13	

\*  $p < .05$ ; \*\* $p < .01$

Table 4-9 confirms that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in variance in Organizational counterproductive work behavior scores. The linear regression model explained 2% and 13% of the overall variance in individual and organization counterproductive work behavior respectively. When we look at the individual components of PsyCap and significance of their t scores, it suggests that hope and resilience significantly contribute to the explanation of organizational counterproductive workplace behaviors in industrial and commercial services sector.

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Table 4-10 presents the regression analysis of PsyCap dimensions on CWB (Individual and Organizational) in the manufacturing goods sector.

*Table 4-10 Contribution of PsyCap components to Counterproductive Workplace Behaviors in Manufacturing goods sector*

(n=157)

PsyCap	CWB I			CWB O		
	B	$\beta$	t	B	$\beta$	t
Efficacy	-.08	-.07	.61	-.13	-.09	.81
Hope	.12	.11	.99	.14	.09	.87
Resilience	-.08	-.08	.79	-.09	-.07	.70
Optimism	-.13	-.11	1.22	-.09	-.06	.67
F	.85			.678		
R	.15			.12		
R <sup>2</sup>	.02			.02		
Adj R <sup>2</sup>	-.004			-.01		

\*  $p < .05$ ; \*\* $p < .01$

As Table 4-10 suggests, in the manufacturing goods sector, PsyCap dimensions (Efficacy, Hope, Resilience and Optimism) scores were not able to explain the variance in CWB scores.

Table 4-11 presents the regression analysis of PsyCap dimensions on CWB (Individual and Organizational) in the Healthcare sector.

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*Table 4-11 Contribution of PsyCap components to Counterproductive Workplace Behaviors in Healthcare sector*

n =139

PsyCap	CWB I			CWB O		
	B	$\beta$	t	B	$\beta$	t
Efficacy	-.24	-.22	2.31*	-.23	-.12	1.27
Hope	-.14	-.12	1.29	-.15	-.07	.78
Resilience	-.07	-.05	.59	-.10	-.05	.50
Optimism	.23	.21	2.31*	.14	.08	.83
F		3.371*			1.086	
R		.302			.177	
R <sup>2</sup>		.09			.03	
Adj R <sup>2</sup>		.06			.002	

\*  $p < .05$ ; \*\* $p < .01$

Table 4-11 confirms that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in interpersonal counterproductive work behavior scores. The linear regression model explained 6% of the overall variance in interpersonal counterproductive work behavior. When we look at the individual components of PsyCap and significance of their t scores, it suggests that efficacy and optimism significantly contribute to the explanation of interpersonal counterproductive work behavior.

Table 4-12 presents the regression analysis of PsyCap dimensions on CWB components in the pharmaceutical and medical research sector.

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*Table 4-12 Contribution of PsyCap components to Counterproductive Workplace Behaviors in Pharmaceuticals and Medical Research sector*

(n = 81)

PsyCap	CWB I			CWB O		
	B	$\beta$	t	B	$\beta$	t
Efficacy	-.10	-.14	1.12	-.31	-.36	3.10**
Hope	-.07	-.11	.84	-.16	-.20	1.71
Resilience	.09	.14	1.09	.05	.06	.54
Optimism	-.06	-.09	.76	.05	.06	.56
F	1.068			4.491**		
R	.23			.44		
R <sup>2</sup>	.05			.19		
Adj R <sup>2</sup>	.003			.14		

\*  $p < .05$ ; \*\* $p < .01$

Table 4-12 confirms that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in variance in organizational counterproductive work behavior scores. The linear regression model explained 14% of the overall variance in organization counterproductive work behavior. When we look at the individual components of PsyCap and significance of their t scores, it suggests that efficacy significantly contributes to the explanation of organizational counterproductive workplace behaviors.

It is interesting to note that CWB I is significantly explained by PsyCap efficacy and optimism in the healthcare sector. CWB O is significantly explained by PsyCap efficacy in Pharmaceutical research sector, whereas in industrial and commercial service sector PsyCap hope and resilience play a significant role in explaining CWB O.

### 4.3 Effect of PsyCap on Work Engagement

Hypothesis H 3 conjectured that PsyCap dimensions will affect work engagement felt by employees in an organization. *Table 4-2* suggests that there is a significant correlation between PsyCap and WE ( $r = .56$ ). Each of the WE components i.e. vigor ( $r = .37$ ), dedication ( $r = .45$ ) and absorption ( $r = .32$ ) are also strongly correlated with PsyCap. In this relation between PsyCap and WE, all four PsyCap dimensions i.e. efficacy ( $r = .39$ ), hope ( $r = .45$ ), resilience ( $r = .42$ ) and optimism ( $r = .32$ ) contribute to a significant extent. To further explore whether the PsyCap dimensions explain the variance in WE, a regression analysis was performed. The results are given in Table 4-13 through 4-17.

*Table 4-13 Effect of PsyCap Dimensions on Work Engagement*

( $n = 535$ )

PsyCap	Vigor			Dedication			Absorption		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	.15	.11	2.16*	.12	.12	2.47*	.18	.13	2.55*
Hope	.26	.18	3.58**	.37	.35	7.30**	.15	.11	2.11*
Resilience	.38	.26	5.57**	.06	.05	1.22	.22	.16	3.27**
Optimism	.05	.03	.75	.13	.12	2.88**	.04	.03	.56
F		35.20**			46.91**			17.22**	
R		.46			.51			.34	
R <sup>2</sup>		.21			.26			.12	
Adj R <sup>2</sup>		.20			.26			.11	

\*  $p < .05$ ; \*\*  $p < .01$

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Table 4-13 shows that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in variance in Work Engagement (vigor, dedication and absorption) scores. The linear regression model explained 20% of the overall variance in vigor of employees, 26% of dedication experienced by employees and 11% of absorption experienced by employees. When we look at the individual components of PsyCap and significance of their t scores, it suggests that efficacy and hope significantly contribute to the explanation of vigor, dedication and absorption, while resilience significantly contributes to the explanation of vigor and absorption, while resilience significantly contributes to the explanation of vigor and absorption.

Table 4-14 shows is the explanatory power of PsyCap components on Work Engagement in the Industrial and Commercial Services sector.

*Table 4-14 Contribution of PsyCap components to Work Engagement in Industrial and commercial Services sector*

(n = 158)

PsyCap	Vigor			Dedication			Absorption		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	.16	.14	1.598	.07	.06	.678	.17	.15	1.501
Hope	.26	.22	2.684**	.46	.42	4.564**	.08	.07	.721
Resilience	.34	.28	3.614**	.01	.01	.098	.25	.21	2.333*
Optimism	.18	.13	1.847	.19	.14	1.856	.10	.08	.917
F	22.417**			14.466**			7.363**		
R	.61			.52			.40		
R <sup>2</sup>	.37			.27			.16		
Adj R <sup>2</sup>	.35			.26			.14		

\* p < .05; \*\*p < .01



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As Table 4-14 shows in the Industrial and commercial services sector, PsyCap dimensions (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in variance in Work Engagement (vigor, dedication and absorption) scores. The linear regression model explained 35% of the overall variance in vigor of employees, 26% of dedication experienced by employees and 14% of absorption experienced by employees. When we look at the individual components of PsyCap and significance of their t scores, it suggests that hope significantly contributes to the explanation of vigor and dedication of employees from the industrial and commercial services sector, while resilience significantly contributes to the explanation of vigor and absorption.

Table 4-15 shows the extent to which PsyCap components explains Work Engagement in the manufacturing goods sector.

*Table 4-15 Contribution of PsyCap Components to Work Engagement in Manufacturing Goods sector*

n=157

PsyCap	Vigor			Dedication			Absorption		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	.19	.16	1.71	.10	.10	1.03	.06	.04	.38
Hope	.30	.25	2.60*	.33	.35	3.52**	.26	.18	1.72
Resilience	.30	.27	3.28**	-.02	-.02	.20	.15	.12	1.24
Optimism	-.04	-.03	.40	.11	.11	1.39	.06	.04	.48
F		16.44**			10.42**			3.99**	
R		.55			.46			.31	
R <sup>2</sup>		.30			.22			.10	
Adj R <sup>2</sup>		.28			.19			.07	

\* p < .05; \*\*p < .01

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Table 4-15 suggests that in the manufacturing goods sector, PsyCap dimensions (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in Work Engagement (vigor, dedication and absorption) scores. The linear regression model explained 28% of the overall variance in vigor of employees, 19% of dedication experienced by employees and 7% of absorption experienced by employees. When we look at the individual components of PsyCap and significance of their t scores, it suggests that hope significantly contributes to the explanation of vigor and dedication of employees from the manufacturing goods sector, while resilience significantly contributes to the explanation of vigor. PsyCap efficacy and optimism do not contribute significantly to the components of WE in manufacturing goods sector.

*Table 4-16 Contribution of PsyCap components to Work Engagement in Healthcare sector*

n= 139

PsyCap	Vigor			Dedication			Absorption		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	-.00	-.001	.01	.08	.06	.61	.22	.12	1.25
Hope	.11	.53	.53	.23	.15	1.63	.15	.07	.78
Resilience	.52	.21	2.2*	.24	.15	1.67	.32	.15	1.62
Optimism	-.05	-.24	.24	.29	.20	2.34*	.23	-.12	1.34
F		1.75			6.14**			2.17	
R		.22			.39			.25	
R <sup>2</sup>		.05			.16			.06	
Adj R <sup>2</sup>		.02			.13			.03	

\* p < .05; \*\*p < .01

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Table 4-16 suggests that PsyCap dimensions (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in Work Engagement (vigor, dedication and absorption) scores in the manufacturing goods sector. The linear regression model explained 30% of the overall variance in vigor of employees, 22% of dedication experienced by employees and 9% of absorption experienced by employees. When we look at the individual components of PsyCap and significance of their t scores, it suggests that hope significantly contributes to the explanation of vigor and dedication of employees from the manufacturing goods sector, while resilience significantly contributes to the explanation of vigor. PsyCap efficacy and optimism do not contribute significantly to the components of WE.

Table 4-17 displays the explanatory power of PsyCap components on Work Engagement in the pharmaceuticals and medical research sector.

*Table 4-17 Contribution of PsyCap components to Work Engagement in Pharmaceutical and Medical Research sector*

PsyCap	Vigor			Dedication			Absorption		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	.24	.18	1.76	.25	.27	2.45*	-.05	-.03	.29
Hope	.22	.18	1.69	.21	.25	2.21*	.07	.05	.45
Resilience	.25	.19	1.87	.03	.04	.33	.37	.28	2.41*
Optimism	.34	.28	2.70**	.08	.10	.90	.30	.24	2.09*
F		10.16**			6.25**			4.55**	
R		.59			.50			.44	
R <sup>2</sup>		.35			.25			.19	
Adj R <sup>2</sup>		.31			.21			.15	

\* p < .05; \*\*p < .01

Table 4-17 illustrates that in the Pharmaceutical and Medical research sector, PsyCap dimensions (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in WE (vigor, dedication and absorption) scores. The linear regression model explained 31% of the overall variance in vigor of employees, 21% of dedication experienced by employees and 15% of absorption experienced by employees. When we look at the individual components of PsyCap and significance of their t scores, it suggests that efficacy and hope significantly contribute to the explanation of dedication of employees from the Pharmaceutical and Medical research sector, while resilience significantly contributes to the explanation of vigor and absorption.

#### **4.4 Effect of PsyCap on Emotional Labor**

Hypothesis H4 conjectured that PsyCap dimensions will affect Emotional Labor (EL) displayed by employees in an organization. *Table 4-2* suggests that there is a significant correlation between PsyCap and EL ( $r = .15$ ). In this relation between PsyCap and EL, efficacy ( $r = .10$ ) and optimism ( $r = .18$ ) contribute to a significant extent. Surface acting and efficacy are also significantly negatively related ( $r = -.11$ ). Deep acting was correlated with PsyCap efficacy ( $r = .09$ ), hope ( $r = .12$ ) and resilience ( $r = .23$ ). Emotional consonance was correlated with all the four dimensions. In case of emotional suppression, PsyCap resilience ( $r = .18$ ) and PsyCap optimism ( $r = .09$ ) were significantly related. To understand whether PsyCap dimensions can be strong resource for combating EL, a regression analysis was performed and the results are given in Table 4-17 through 4-21. Table 4-18 describes the effect of PsyCap dimensions on EL.

*Table 4-18 Effect of PsyCap Dimensions on Emotional Labor*

*(n = 535)*

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

PsyCap	Surface Acting			Deep Acting			Emotional Consonance			Emotional Suppression		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	-.16	-.12	2.41*	-.02	-.02	.34	.08	.13	2.41*	-.03	-.03	.47
Hope	-.01	-.004	.07	.03	.03	.49	-.04	-.08	1.4	-.06	-.06	1.12
Resilience	.07	.05	1.0	.25	.23	4.54**	.12	.20	4.10**	.16	.16	3.15**
Optimism	-.06	-.04	.79	-.03	-.03	.57	.06	.10	2.14*	.12	.11	2.41*
F		2.01			7.27**			12.23**			4.87**	
R		.12			.23			.29			.19	
R <sup>2</sup>		.02			.05			.09			.04	
Adj R <sup>2</sup>		.01			.05			.08			.03	

Table 4-18 shows that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain the variance in emotional labor (especially deep acting, emotional consonance and emotional suppression) scores. The linear regression model explained 5%, 8% and 3% of the overall variance in deep acting, emotional consonance and emotional suppression respectively. When we look at the individual components of PsyCap and significance of their t scores, it suggests that resilience and to some extent efficacy, significantly contributes to the explanation of deep acting, emotional consonance and emotional suppression while optimism significantly contributes to the explanation of emotional consonance and emotional suppression.

EL differently affects employees in different sectors. Also depending on their work profiles EL is handled in a different way in different sectors and hence the sectors across which data was collected, also may make an impact. The following section presents the

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

regression analysis for different sectors. Table 4-19 presents the regression analysis of PsyCap dimensions on EL in the Industrial and Commercial Services sector.

*Table 4-19 Contribution of PsyCap Components to Emotional Labor in Industrial and Commercial Services Sector*

PsyCap	Surface Acting			Deep Acting			Emotional Consonance			Emotional Suppression		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t
Efficacy	-.09	-.07	.67	-.03	-.03	.34	.13	.22	2.18*	.09	.10	.91
Hope	.04	.03	.30	-.00	-.00	.06	-.06	-.09	.95	-.11	-.13	1.21
Resilience	.12	.10	1.00	.15	.15	1.54	.11	.19	2.03*	.13	.14	1.48
Optimism	.02	.02	.18	.03	.03	.31	.10	.14	1.75	.11	.11	1.21
F		.37			.80			6.60**			1.92	
R		.10			.14			.38			.22	
R <sup>2</sup>		.01			.02			.15			.05	
Adj R <sup>2</sup>		-.02			-.005			.13			.02	

\*  $p < .05$ ; \*\* $p < .01$

As Table 4-19 shows, PsyCap components do not explain the variance in EL in industrial and commercial service sector except for emotional consonance. Emotional consonance is significantly explained by PsyCap efficacy and hope. The linear regression model explained 13% of the overall variance in emotional consonance. When we look at the individual components of PsyCap and significance of their t scores, it suggests that efficacy and resilience significantly contribute to the explanation of emotional consonance. Table 4-20 presents the regression analysis of PsyCap dimensions on EL in the manufacturing goods sector.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

*Table 4-20 Contribution of PsyCap components to Emotional Labor in Manufacturing Goods sector*

N= 157

PsyCap	Surface Acting			Deep Acting			Emotional Consonance			Emotional Suppression		
	B	B	t	B	$\beta$	t	B	$\beta$	t	B	B	t
Efficacy	.02	.01	.13	.10	.09	.89	.22	.35	3.53**	.19	.18	1.69
Hope	-.17	-.12	1.11	-.06	-.06	.55	-.20	-.34	3.26**	-.21	-.20	1.85
Resilience	.01	.01	.07	.26	.27	2.83*	.18	.32	3.61**	.13	.14	1.47
Optimism	-.09	-.07	.75	-.13	-.12	1.40	-.03	-.05	.55	.12	.11	1.24
F	.84			3.15*			8.31**			2.37*		
R	.15			.28			.43			.24		
R <sup>2</sup>	.02			.08			.18			.06		
Adj R <sup>2</sup>	-.004			.05			.16			.03		

\*  $p < .05$ ; \*\* $p < .01$

Table 4-20 shows that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain variance in emotional labor (especially deep acting, emotional consonance and emotional suppression) scores. The linear regression model explained 5%, 16% and 3% of the overall variance in deep acting, emotional consonance and emotional suppression respectively. When we look at the individual components of PsyCap and significance of their t scores, it suggests that resilience significantly contributes to the explanation of deep acting and emotional consonance while hope and efficacy significantly contribute to the explanation of emotional consonance. The next sector that was studied was the healthcare sector. Table 4-21 shows the explanatory power of PsyCap in the healthcare sector.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

*Table 4-21 Contribution of PsyCap components to Emotional Labor in Healthcare*

*sector*

PsyCap	Surface Acting			Deep Acting			Emotional Consonance			Emotional Suppression		
	B	B	t	B	$\beta$	t	B	$\beta$	t	B	B	t
Efficacy	-.22	-.13	1.28	.06	.05	.52	.03	.04	.44	-.08	-.07	.76
Hope	-.07	.04	.038	.17	.13	1.45	-.02	-.02	.19	-.02	-.02	.17
Resilience	.04	.02	0.19	.26	.20	2.16*	.01	.02	.17	.20	.16	1.74
Optimism	.05	-.03	.29	-.01	-.01	.06	.030	.04	.40	.18	.16	1.70
F		.42			3.29*			.15			1.85	
R		.11			.30			.07			.23	
R <sup>2</sup>		.01			.09			.004			.05	
Adj R <sup>2</sup>		-.02			.06			-.03			.02	

\*  $p < .05$ ; \*\* $p < .01$

Table 4-21 shows that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were significantly able to explain variance in emotional labor in deep acting scores only. Looking at the individual components of PsyCap and the significance of their t scores resilience significantly contributes to the explanation of deep acting. The last sector that was studied is the Pharmaceutical and medical research sector. Table 4-22 illustrates the impact of PsyCap dimensions on EL in the pharmaceutical and medical research sector.

*Table 4-22 Contribution of PsyCap components to Emotional Labor in Pharmaceutical and Medical Research sector*



## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

PsyCap	Surface Acting			Deep Acting			Emotional Consonance			Emotional Suppression		
	B	$\beta$	t	B	$\beta$	t	B	$\beta$	t	B	B	t
Efficacy	-.01	-.01	.06	.02	.01	.09	.16	.24	1.94*	-.11	-.10	.77
Hope	-.19	-.13	1.07	-.07	-.05	.42	.08	.13	1.05	-.06	-.06	.44
Resilience	.05	.03	0.26	.19	.14	1.05	.005	.008	.06	.02	.01	.10
Optimism	-.38	-.27	2.20	.04	.03	.27	-.02	-.03	.26	.18	.16	1.31
F		2.103			.385			1.942			.566	
R		.32			.14			.31			.17	
R <sup>2</sup>		.10			.02			.09			.03	
Adj R <sup>2</sup>		.05			-.03			.05			-.02	

\*  $p < .05$ ; \*\* $p < .01$

Table 4-22 shows that changes in PsyCap (Efficacy, Hope, Resilience and Optimism) scores were not able to explain variance in emotional labor in pharmaceutical and medical research sector.

### 4.5 Difference between employees high on PsyCap and low on PsyCap in workplace behaviors and emotions

PsyCap as a resource has been shown to impact workplace behaviors and emotions. Hypotheses 5, 6, 7, 8 explored whether employees with higher PsyCap will differ from the employees with lower PsyCap on OCB, CWB, WE and EL. An independent samples t test was conducted to compare scores of employees scoring in the top quartile in PsyCap and bottom quartile in PsyCap on OCB, CWB, WE and EL. Table 4-23 displays the difference in means of top quartile and bottom quartile employees.

*Table 4-23 Difference between employees high and low in PsyCap in workplace*

*Emotions and workplace behaviors*

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Variables	Low PsyCap		High PsyCap		t	Sig
	Mean	SD	Mean	SD		
Helping	32.65	10.59	34.05	14.93	-.87	.387
Sportsmanship	18.20	4.62	20.72	5.60	-3.95	.000
Civic virtue	13.07	4.26	13.87	6.14	-1.22	.224
CWB I	10.51	4.74	8.72	2.64	3.78	.000
CWB O	16.24	7.24	13.32	2.80	4.33	.000
Vigor	30.19	5.09	36.65	3.68	-11.75	.000
Dedication	26.43	5.44	31.53	3.27	-9.24	.000
Absorption	29.57	5.91	34.16	5.36	-6.54	.000
Surface acting	18.06	5.38	16.69	5.52	2.03	.044
Deep acting	12.63	4.08	14.14	4.89	-2.69	.008
Emotional	9.92	2.71	11.39	2.77	-4.32	.000
Consonance						
Emotional	13.33	4.04	14.46	4.15	-2.22	.027
Suppression						

Using an independent t-test it was confirmed that High PsyCap employees displayed sportsmanship to a significant level but did not display significantly higher helping behaviors and civic virtues. The t-test confirmed that High PsyCap employees displayed significantly lower counterproductive workplace behaviors, both organizational as well as individual. The t-test also confirmed that amount of vigor, dedication and absorption displayed by high PsyCap employees was significantly higher than low PsyCap employees. In case of emotional labor dimensions, high PsyCap employees displayed significantly higher surface acting than low PsyCap employees. The independent t-test also confirmed that deep acting,

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

emotional consonance and emotional suppression were significantly higher for high PsCap employees.

Looking at each of the variables, Table 4-23 suggests that PsyCap does have an effect on sportsmanship of employees. As far as other components of OCB viz. helping and civic virtue, the citizenship behaviors are higher in high PsyCap employees but they do not reach significance. Specifically, it suggests that when PsyCap is higher, the employees manage the inevitable inconveniences of work without complaining. Thus Hypothesis H5 is partially upheld.

High PsyCap employees show significantly lower CWB behaviors both at the individual and organizational level. Table 4-23 suggests that PsyCap components have a role to play in managing CWB. This upholds Hypothesis H6 which stated that there would be a difference amongst high and low PsyCap employees in CWB.

Table 4-23 suggests that WE components do get impacted by High PsyCap. There was a significant difference in the vigor, dedication and absorption scores of Q4 PsyCap employees. Specifically, they suggest that when PsyCap is higher, the employees display significantly higher energetic behaviours, immerse themselves in meaningful pursuit and are fully engrossed in their work. This upholds the Hypothesis H7 that there would be significant difference in WE in employees with high PsyCap as compared to low PsyCap employees.

Table 4-23 suggests that PsyCap also has an impact on emotional labor experienced by the employees. High PsyCap employees display significantly lesser surface acting behaviors, and more deep acting behaviors. High PsyCap employees experience significantly higher emotional consonance and emotional suppression. This upholds the Hypothesis H8 that there would be significant difference in EL in employees with high PsyCap as compared to employees with low PsyCap.

### **4.6 Impact of the Intervention on PsyCap, OCB, CWB, WE and EL**

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

After doing the survey in the first phase of the study, the second phase of the study involved inviting employees who were below the median for a training intervention with support from the respective HR departments. The employees were matched on their PsyCap scores in the phase I and then allotted to either the control group or the experimental group. The control group intervention was called Sukriti. Kriti in Hindi means work and the intervention involved work based skills required for all employees. These skills also come under the umbrella of soft skills. The skills that were covered were communication skills, team building skills, conflict management skills and problem-solving skills. The experimental group intervention was called Metamorphosis. It involved four modules covering the four constructs of PsyCap. Both the training programs' duration was sixteen hours spread over two days. Both used the experiential learning methodology. Both began with an icebreaker and ended with action plans.

The impact of the training programs was assessed at the end of two days using the same questionnaire which had been given to the employees for the survey. The employees' feedback was also taken. The following section describes the impact of both the interventions on PsyCap and outcome variables.

### **4.6.1 Effect of the targeted module on PsyCap**

In this study, the researchers wished to compare the control group and the intervention group on PsyCap and the outcome variables in order to test the impact of the interventions. The employees after Phase I were matched on PsyCap scores pre-intervention. Still in order to establish an initial equivalence, a paired sample t test was conducted between the experimental and control group. Based on a non-significant result ( $p = .832$ ), we concluded that matching on PsyCap scores was indeed effective in establishing an initial equivalence between the two groups, as no significant differences were found between their levels of PsyCap pre-intervention.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

The employees were administered a targeted intervention (metamorphosis) or a soft skills intervention (sukriti). Employees' score post intervention and after a follow up period of three months. are given in Table 4-24

*Table 4-24 Effect of interventions on control group and intervention group*

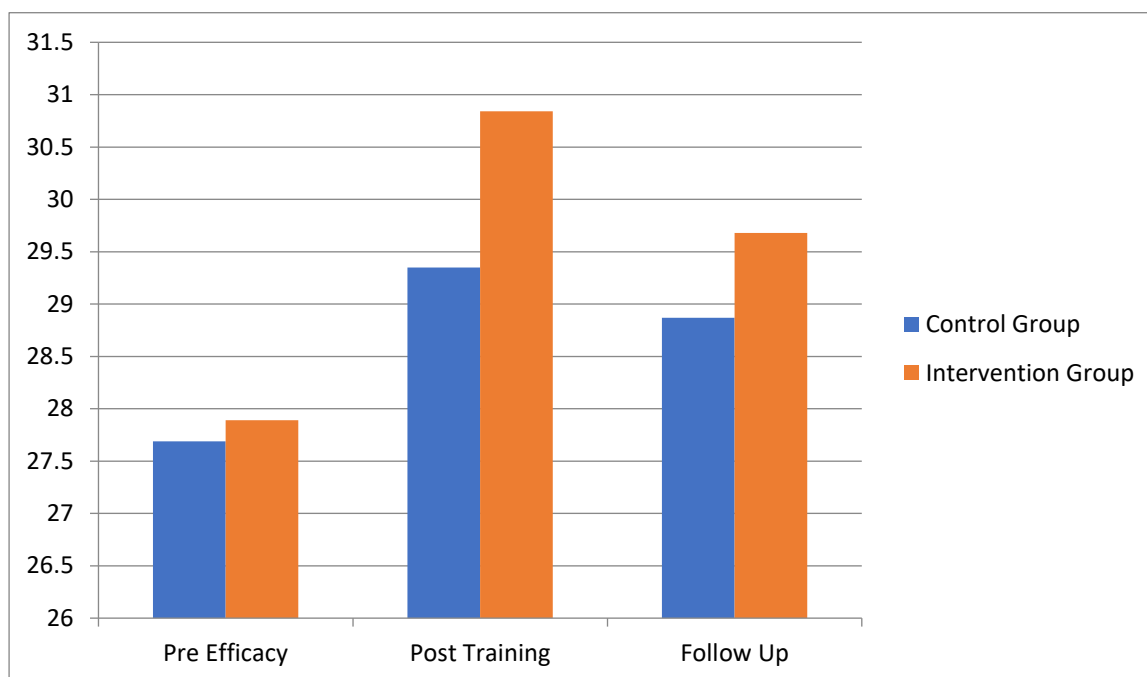
Variable	Control Group			Intervention Group		
	Pre	Post	Follow Up	Pre	Post	Follow Up
	Intervention	Intervention		Intervention	Intervention	
	(n = 48)	(n = 48)	(n = 23)	(n = 57)	(n = 57)	(n = 37)
	Mean	Mean	Mean	Mean	Mean	Mean (SD)
	(SD)	(SD)	(SD)	(SD)	(SD)	
Efficacy	27.69	29.35	28.87	27.89	30.84	29.68
	(3.82)	(3.73)	(3.96)	(3.82)	(2.95)	(3.26)
Hope	26.98	29.08	28.83	27.02	29.37	28.76
	(4.11)	(3.17)	(3.54)	(4.25)	(3.75)	(3.48)
Resilience	24.98	26.92	27.78	25.21	26.91	27.51
	(3.73)	(4.54)	(3.18)	(3.24)	(3.55)	(3.43)
Optimism	24.79	24.48	24.35	24.72	25.32	25.24
	(3.24)	(3.15)	(2.62)	(2.82)	(2.86)	(3.48)
Helping	37.67	34.92	39.35	38.37	38.98	37.73
	(6.86)	(9.56)	(7.23)	(7.17)	(6.63)	(7.85)
Sportsmanship	20.52	18.65	20.70	20.21	21.19	21.03
	(3.75)	(5.89)	(4.70)	(4.83)	(4.61)	(5.73)
Civic Virtue	14.60	13.83	15.30	15.23	16.77	16.05
	(4.29)	(5.00)	(3.87)	(3.21)	(3.45)	(3.64)

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Variable	Control Group			Intervention Group		
	Pre	Post	Follow Up	Pre	Post	Follow Up
	Intervention	Intervention		Intervention	Intervention	
	(n = 48)	(n = 48)	(n = 23)	(n = 57)	(n = 57)	(n = 37)
	Mean	Mean	Mean	Mean	Mean	Mean (SD)
	(SD)	(SD)	(SD)	(SD)	(SD)	
CWB I	9.55	10.38	9.74	9.14	8.74	9.24
	(2.96)	(4.31)	(2.56)	(2.60)	(1.99)	(2.67)
CWB O	15.70	15.89	15.35	14.79	13.88	15.14
	(4.56)	(6.03)	(3.24)	(3.84)	(2.44)	(5.23)
Vigor	30.83	31.44	31.87	31.00	32.89	31.80
	(4.79)	(5.32)	(5.23)	(4.27)	(4.82)	(3.89)
Dedication	27.23	26.65	27.74	28.19	27.70	27.84
	(4.49)	(5.22)	(5.15)	(4.68)	(5.14)	(3.78)
Absorption	31.25	29.50	31.04	31.02	32.19	32.43
	(5.56)	(5.62)	(4.60)	(4.91)	(5.62)	(4.25)
Surface	16.33	15.79	17.70	17.40	15.77	16.05
Acting	(5.07)	(6.21)	(6.75)	(4.78)	(6.36)	(5.76)
Deep Acting	13.06	14.94	12.87	12.67	15.91	11.38
	(4.11)	(3.10)	(4.34)	(3.99)	(2.75)	(3.83)
Emotional	10.42	10.21	10.61	10.23	10.11	9.73
Consonance	(2.10)	(1.94)	(2.48)	(2.35)	(2.88)	(2.86)
Emotional	13.23	13.94	14.52	13.09	13.70	13.89
Suppression	(4.02)	(3.32)	(4.60)	(3.76)	(3.66)	(3.86)

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

The comparative chart given in Figure 4-1 shows the effect of both the interventions.



*Figure 4-1 Mean scores of the Intervention modules on PsyCap Efficacy*

Though the employees had been invited for either the experimental intervention or the control intervention, attending the intervention was voluntary. This and other unavoidable circumstances like exigencies of work, there was a sharp reduction in the size of the sample. In order to manage this challenge and control for the differences in the groups which may have pre-existed and to understand the impact of the training on each of the variables, covariance analysis was performed on PsyCap constructs and outcome variables. It is especially useful when for various reasons, it is quite difficult to equate control and experimental groups at the start of an intervention (Garrett, 2014). Through covariance it is possible to effect adjustments in post training and follow up scores which will allow for differences in initial PsyCap.

*Table 4-25 Effect of the Intervention on PsyCap Efficacy*

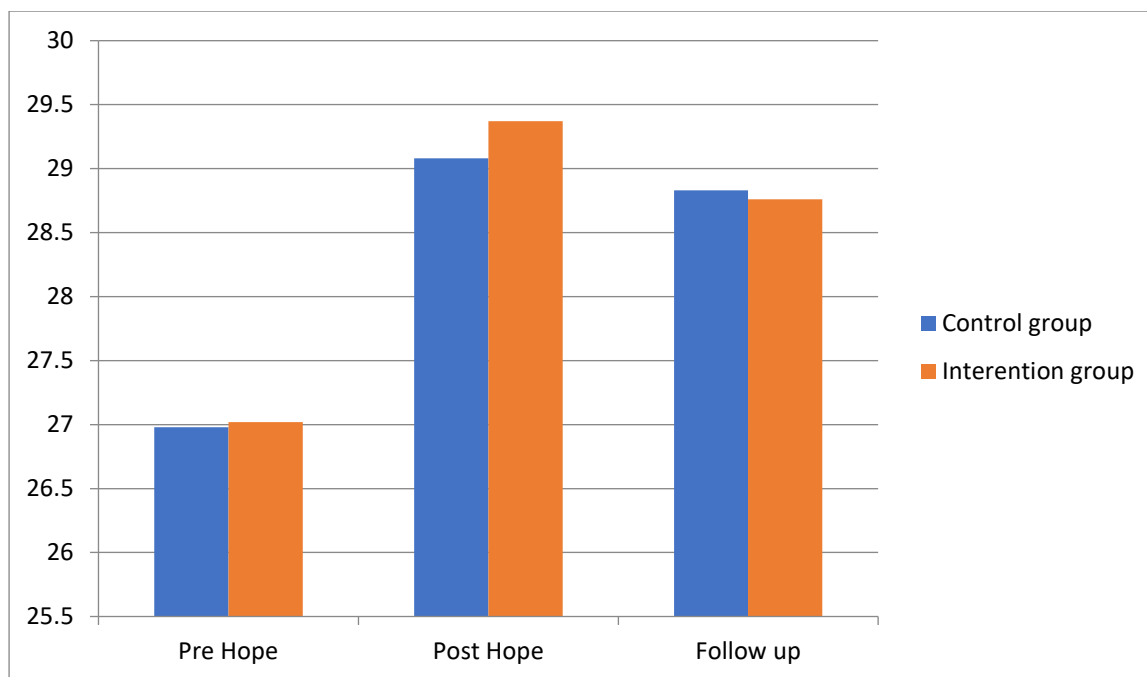
## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	53.48	1	53.48	5.26	.024
Efficacy	105.90	1	105.90	10.42	.002
<b>Follow Up</b>					
Type of Intervention	13.11	1	13.11	1.10	.298
Efficacy	49.392	1	49.39	4.157	.046

Hypothesis H9 states that the post intervention PsyCap scores of the employees undergoing PsyCap development intervention would be different as compared to the control group intervention. PsyCap is second order multidimensional construct. Hence to test this hypothesis, an ANCOVA was applied with the follow up PsyCap as the dependent variable and PsyCap measured in Phase I and post program PsyCap as the covariates. This was done to account for any pre-existing differences existing between the intervention group and the control group. This was done for each of the dimensions of PsyCap. Table 4-25 implies that PsyCap efficacy of the intervention group as well as the control group after the intervention. Thus, there was a significant effect of the intervention on PsyCap efficacy of the employees after controlling for their PsyCap efficacy at an earlier time [  $F(1, 102) = 5.262, p = .024$  ] Hence the data is consistent with the intervention making an impact on PsyCap of employees.



## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL



*Figure 4-2 Mean scores of the Intervention modules on PsyCap Hope*

To account for any pre-existing differences between the two groups on hope, a covariance analysis was done. Table 4-26 shows the results of the ANCOVA immediately after training and after a period of three months.

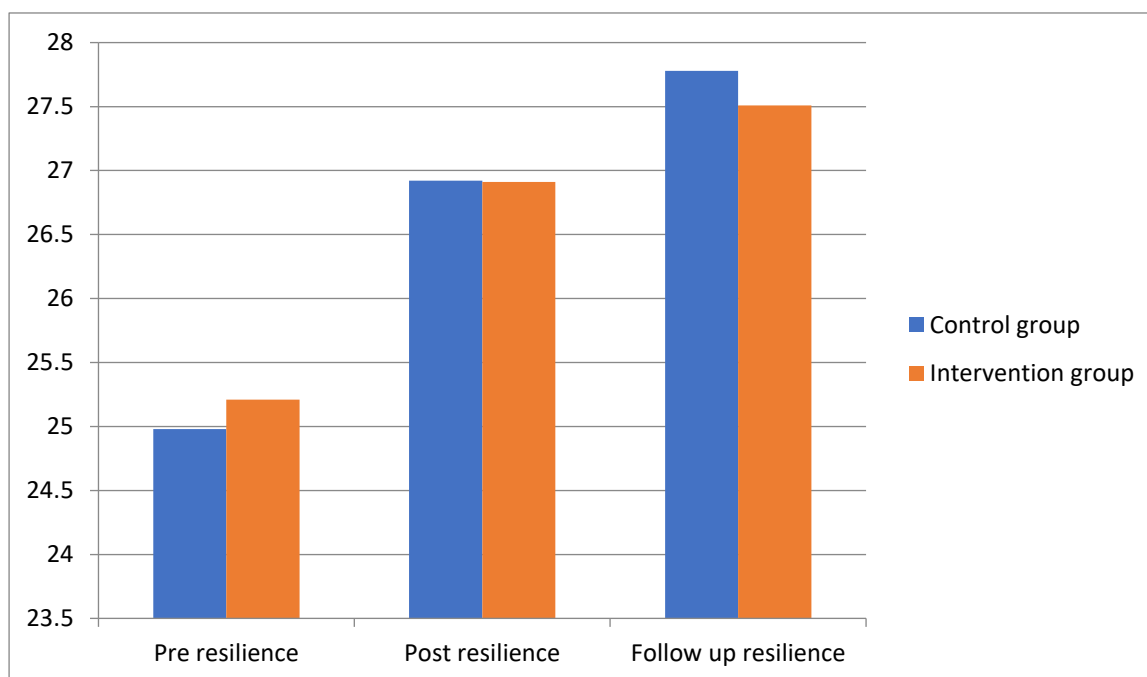
*Table 4-26 Effect of Intervention on Hope*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	1.20	1	1.20	.18	.674
Hope	131.46	1	131.46	11.89	.001
<b>Follow Up</b>					
Type of Intervention	.12	1	.12	.01	.918

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Source	Sum of	df	Mean	F ratio	Sig
	Squares		Square		
Hope	63.39	1	63.39	5.57	.022

Table 4-26 shows that mean PsyCap hope increased for both the intervention group as well as the control group. But the intervention group did not differ significantly from the control group [  $F(3, 102) = .178, p = .674$ ]. The increased PsyCap hope was also not sustained after the training [  $F(1, 59) = .201, p = .656$ ]. Thus, though the follow up PsyCap hope is greater when compared to the baseline, it is not significantly higher than that of the control group [  $F(1, 59) = .201, p = .656$ ] after a period of three months.



*Figure 4-3 Mean scores of the Intervention modules on PsyCap Resilience*

To account for any pre-existing differences between the two groups on resilience, a covariance analysis was done. Table 4-27 shows the results of the ANCOVA immediately after training and after a period of three months.

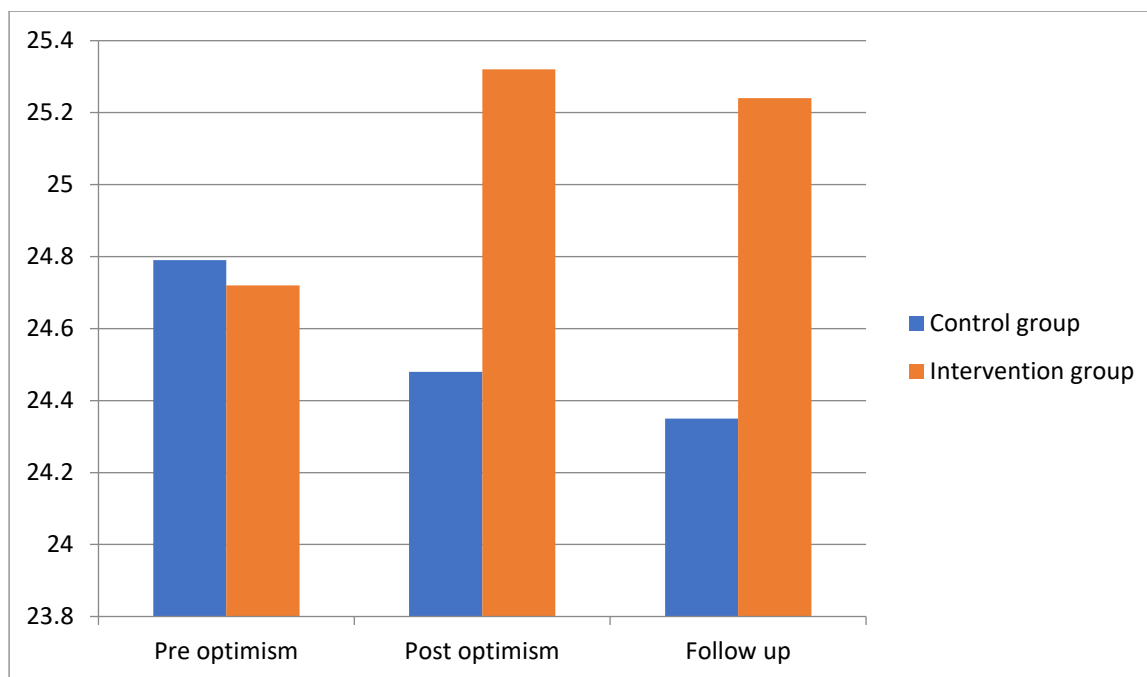
*Table 4-27 Effect of the intervention on PsyCap Resilience*

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	.39	1	.39	.03	.864
Resilience	321.97	1	321.97	24.29	.000
<b>Follow Up</b>					
Type of Intervention	2.25	1	2.25	.23	.637
Resilience	74.62	1	74.62	7.46	.008

Table 4-27 suggests that mean PsyCap resilience increased for both the intervention group as well as the control group. In fact, PsyCap resilience increased between training and follow up period too. No other PsyCap dimension has shown this upward trend but it failed to meet the significance criteria. Thus, though the targeted intervention was not successful in raising the PsyCap resilience of the intervention group significantly [  $F(3, 102) = .029$ ,  $p = .864$ ] as compared to the control group, both the groups reported increased PsyCap resilience after three-month follow up. This increased follow up PsyCap resilience is greater than the baseline resilience but fails to meet the significance criteria. The F ratio is not significantly higher than that of the control group [ $F(1, 59) = .141$ ,  $p = .709$ ] after a period of three months.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL



*Figure 4-4 Mean scores of the intervention modules on Optimism*

To account for any pre-existing differences between the control group and the experimental group, a covariance analysis was done. Table 4-28 shows the results of the ANCOVA immediately after training and after a period of three months.

*Table 4-28 Effect of the intervention on PsyCap Optimism*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	18.78	1	18.78	2.14	.147
Optimism	27.60	1	27.60	3.14	.079
<b>Follow Up</b>					
Type of Intervention	10.63	1	10.63	1.27	.265
Optimism	40.74	1	40.74	4.87	.031

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

As Table 4-28 suggests that mean PsyCap optimism increased for the intervention group but it declined slightly for the control group. This is in line with the hypothesis H9 but the increase was insufficient to reach the significance level. Thus, the targeted intervention was not successful in raising the PsyCap optimism of the intervention group significantly [  $F(3, 102) = 2.136, p = .147$ ] as compared to the control group. Both the groups were also tested after gap of three months and the F ratio was found to be significantly higher than that of the control group [ $F(1, 59) = 4.87, p = .031$ ].

Looking at all the four dimensions of PsyCap Hypothesis H9 is partially upheld, as PsyCap efficacy and PsyCap Optimism was found to be significantly higher but PsyCap hope and PsyCap resilience did not reach the significance criteria level.

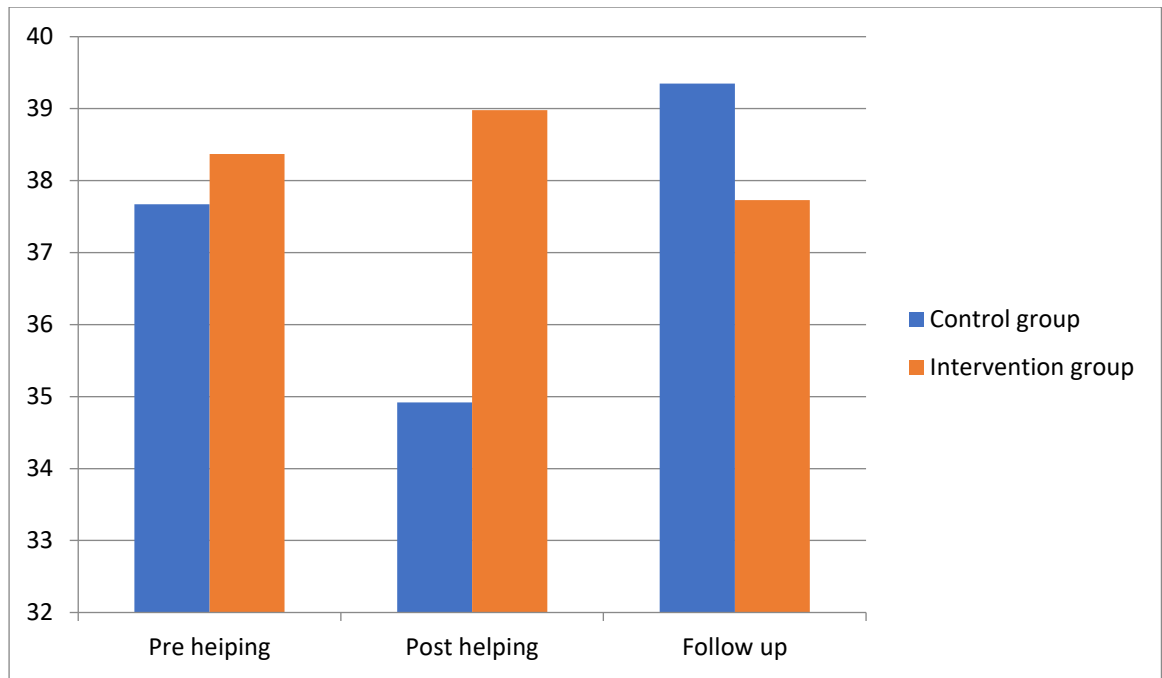
### **4.6.2 Effect of Intervention on workplace behaviors**

PsyCap as a resource has been recommended in many studies. It may be used as a buffer against undesirable behaviors or used as a resource to enhance desirable behaviors. To reach this aim of organizational utility, effect of the focused intervention to develop PsyCap was measured for positive workplace behavior i.e. OCB and negative workplace behavior i.e. CWB.

#### ***4.6.2.1 Effect of the intervention on dimensions of OCB***

It was hypothesized in this study that increased PsyCap would impact workplace behaviors and workplace emotions. Hypothesis H10 stated that there would be a significant difference in the OCB scores of employees undergoing the intervention as compared to the control group intervention. Shown in Figure 4-5 are the scores of employees before, immediately after the intervention and after a gap of three months.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL



*Figure 4-5 Mean scores of the intervention modules on Helping*

To test whether the helping behaviors were significantly higher or not, an ANCOVA was applied to OCB components. Table 4-29 displays the results for the helping component of OCB.

*Table 4-29 Effect of the intervention on Helping component of OCB*

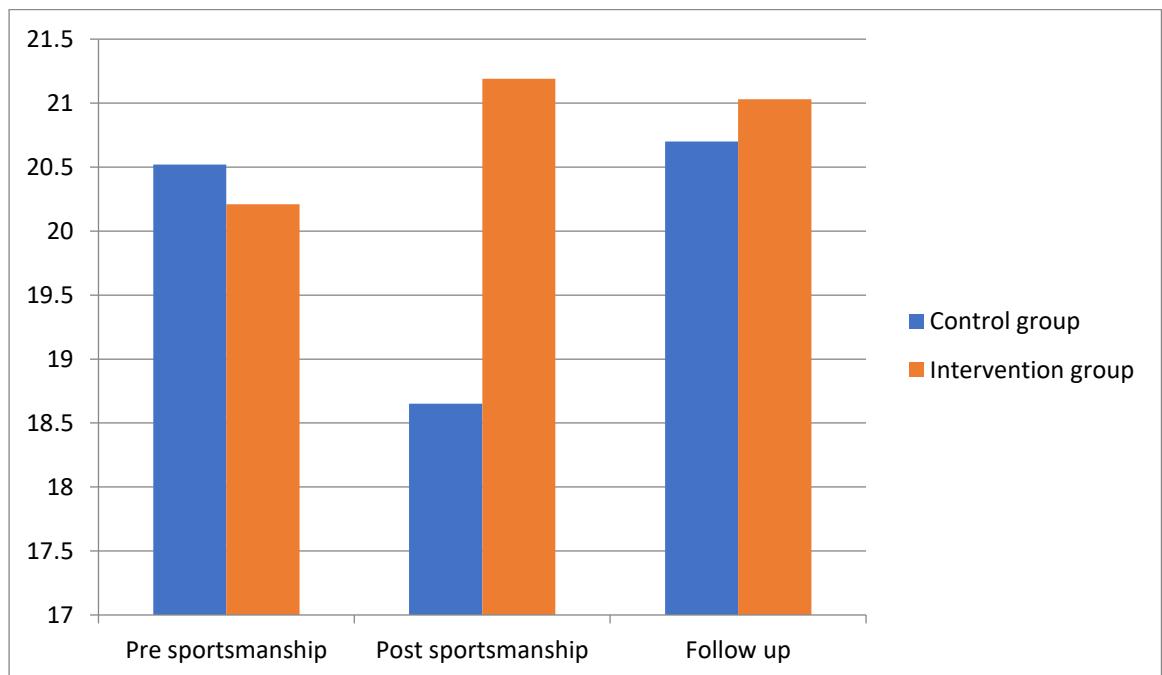
Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	400.16	1	400.16	6.24	.014
Helping	208.53	1	208.53	3.25	.074
<b>Follow Up</b>					
Type of Intervention	45.77	1	45.77	.91	.345
Helping	445.58	1	445.58	8.84	.004

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Table 4-29 implies that helping behaviors of the intervention group increased significantly whereas the helping behaviors of the control group decreased after the intervention. Thus, there was a significant effect of the intervention on helping behaviors of the employees after controlling for their helping behaviors at an earlier time [  $F(1, 102) = 6.235, p = .014$ ]. Hence the data supports hypothesis H10 that the PsyCap intervention would make an impact on OCBs of employees.

But this impact was not sustained after the training. Curiously, the follow up helping is higher in the control group as compared to the intervention group. Hence the data does not support a significant difference between the intervention and the control group [ $F(1, 59) = 1.766, p = .189$ ] after a period of three months.

Another component of OCB is sportsmanship. *Table 4-30* displays the impact of the intervention on sportsmanship behaviors of both the groups.



*Figure 4-6 Mean scores of the Intervention modules on Sportsmanship*

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-30 shows the results of the ANCOVA immediately after training and after a period of three months.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

*Table 4-30 Effect of the intervention on Sportsmanship*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	181.85	1	181.85	7.05	.009
Sportsmanship	189.46	1	189.46	7.34	.008
<b>Follow Up</b>					
Type of Intervention	14.74	1	14.74	.67	.416
Sportsmanship	412.84	1	412.84	18.84	.000

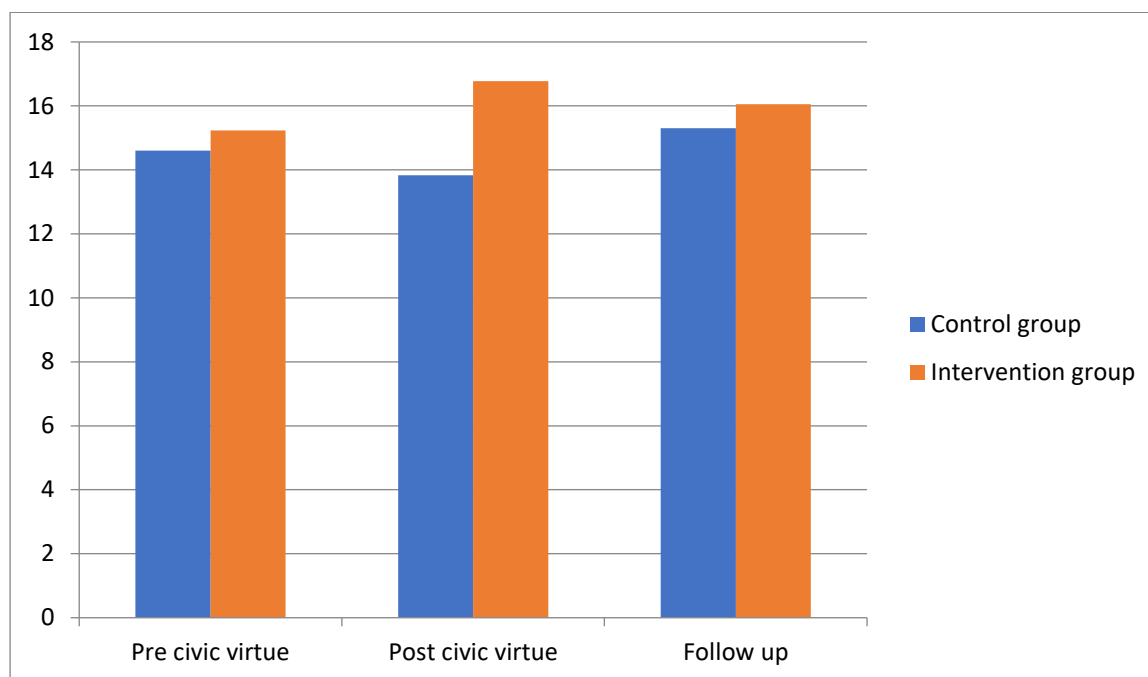
Table 4-30 implies that sportsmanship of the intervention group increased significantly whereas the sportsmanship behaviors of the control group decreased after the intervention. Thus, there was a significant effect of the intervention on sportsmanship behaviors of the employees after controlling for their sportsmanship behaviors at an earlier time [  $F(1, 102) = 7.806, p = .007$ ]. Hence the data supports hypothesis H10 that the PsyCap intervention would make an impact on OCBs of employees and the employees in the intervention group tolerated small and petty inconveniences in the interest of the organization.

But this impact was not sustained after the training. The employees' sportsmanship did not increase further and the employees in the control group reported sportsmanship behaviors to the same level as they were pre-intervention. Hence the data does not support a significant difference between the intervention and the control group [ $F(1, 59) = .673, p = .416$ ] after a period of three months.



## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Another component of OCB is civic virtue. *Figure 4-7* displays the impact of the intervention on civic virtues of both the groups.



*Figure 4-7 Mean scores of the intervention modules on Civic Virtue*

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-31 shows the results of the ANCOVA immediately after training and after a period of three months.

*Table 4-31 Effect of the intervention on Civic virtue*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	190.55	1	190.55	11.49	.001
Civic Virtue	151.30	1	151.30	9.12	.003
<b>Follow Up</b>					

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Source	Sum of	df	Mean	F ratio	Sig
	Squares		Square		
Type of Intervention	4.86	1	4.86	.36	.549
Civic Virtue	46.48	1	46.48	3.48	.067

Table 4-31 implies that civic behaviors of the intervention group increased significantly whereas the civic behaviors of the control group decreased after the intervention. Thus, there was a significant effect of the intervention on civic virtues of the employees after controlling for their civic virtues at an earlier time [  $F(1, 102) = 11.487, p = .001$ ]. Hence the data supports hypothesis H10 that the PsyCap intervention would make an impact on OCBs of employees and the employees did participate more in the organizational life after an increase in PsyCap.

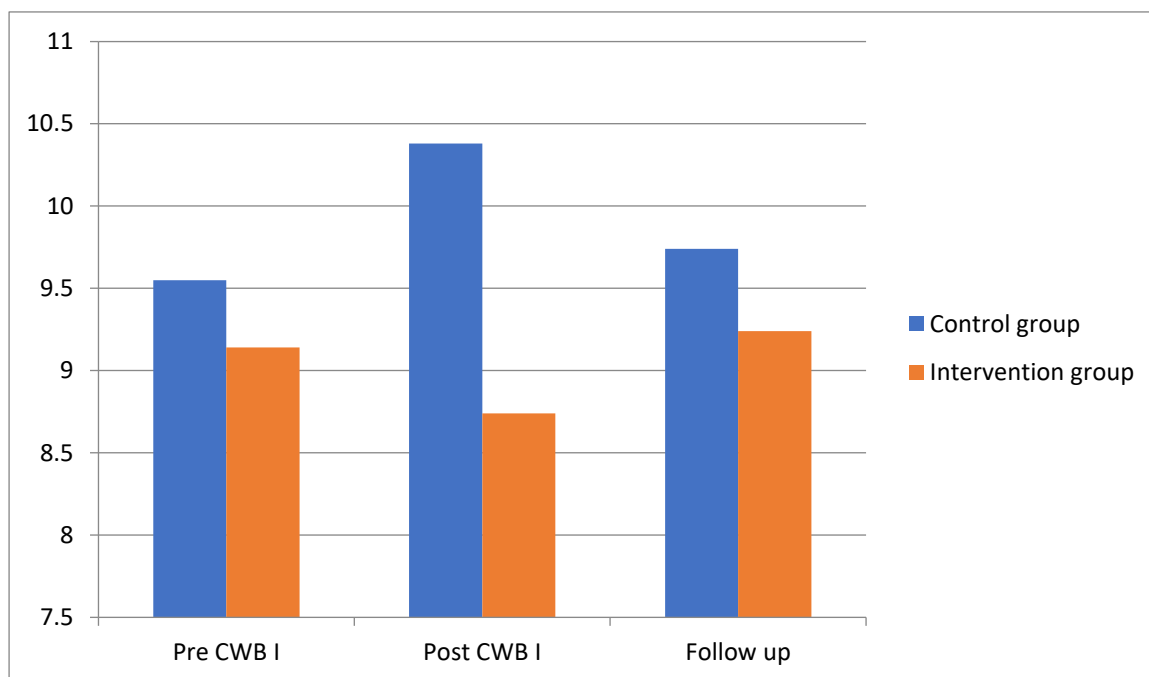
But this impact was not sustained after the training. Curiously, the follow up civic virtues of control group are higher as compared to the post training. Hence the data does not support a significant difference between the intervention and the control group [ $F(1, 59) = .364, p = .549$ ] after a period of three months.

Looking at F ratios in Table 4-29, Table 4-30, and Table 4-31 one can conclude that hypothesis H10 is supported by data. There was sufficient evidence to accept the hypothesis that the intervention increased the OCBs displayed by the employees at the 5% significance level. The data is consistent with intervention having an effect on OCB. But the differential effect of the intervention on OCB dimensions was not sustained after a period of time.

### ***4.6.2.2 Effect of intervention on Counterproductive Workplace Behaviors***

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Another workplace behaviour that was considered in this study was counterproductive workplace behaviour. The effect of the intervention on CWB is depicted in Table 4-32 and Table 4-33.



*Figure 4-8 Mean scores of the Intervention module on Interpersonal Counterproductive Workplace Behaviors*

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-32 shows the results of the ANCOVA immediately after training and after a period of three months.

*Table 4-32 Effect of the intervention on Interpersonal Counterproductive Workplace Behaviors*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	45.82	1	45.82	7.07	.009

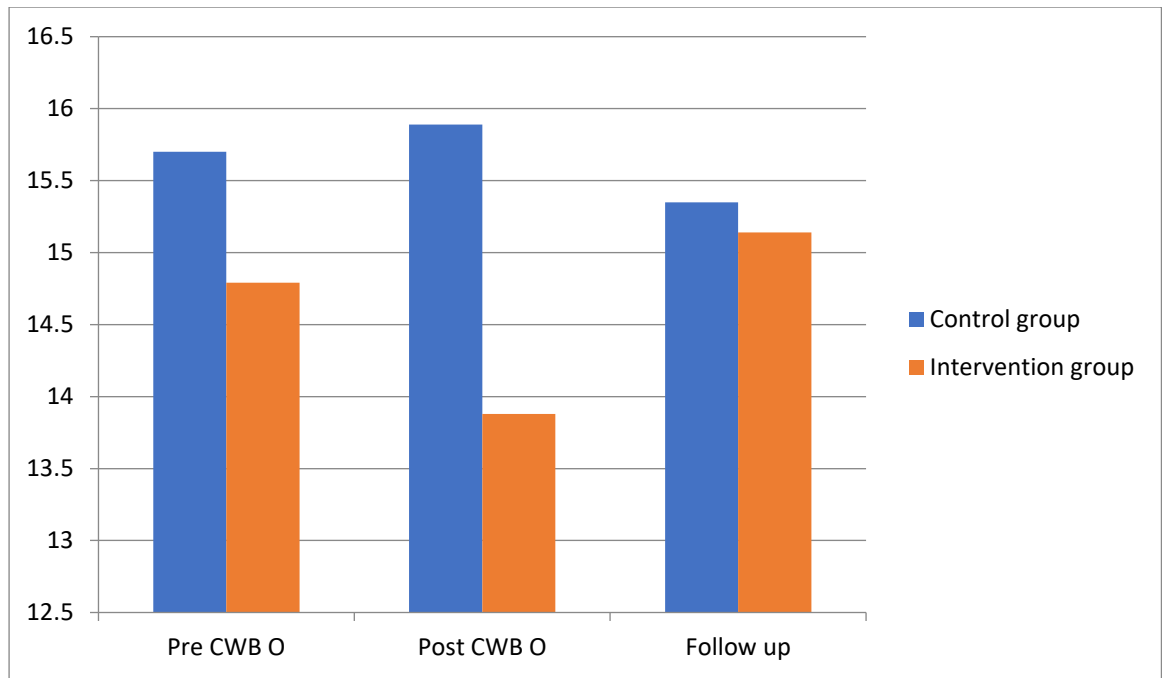
## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Source	Sum of Squares	df	Mean Square	F ratio	Sig
CWB I	437.57	1	437.57	67.52	.000
<b>Follow Up</b>					
Type of Intervention	1.78	1	1.78	.33	.569
CWB I	92.15	1	92.15	17.02	.000

Table 4-32 suggests that CWB-Is of the intervention group decreased significantly whereas those of the control group increased after the intervention. Thus, there was a significant effect of the intervention on CWB Is of the employees after controlling for their CWB at an earlier time [  $F(1, 102) = 7.07, p = .009$ ]. Hence the data supports hypothesis H11 that the PsyCap intervention would make an impact on CWBs of employees. The employees' CWB targeted at the individuals did get reduced.

But this impact was not sustained after the training. The follow up CWB reduced in the period between training and follow up in the control group. In the intervention group it dipped slightly. Hence the data does not support a significant difference between the intervention and the control group [ $F(1, 59) = .329, p = .569$ ] after a period of three months.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL



*Figure 4-9 Mean scores of the Intervention module on Organizational Counterproductive Workplace Behaviors*

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-33 shows the results of the ANCOVA immediately after training and after a period of three months.

*Table 4-33 Effect of the intervention on Organizational Counterproductive Workplace behavior*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	56.49	1	56.49	4.04	.047
CWB O	593.31	1	593.31	42.40	.000
<b>Follow Up</b>					
Type of Intervention	3.14	1	3.14	.20	.658
CWB O	299.37	1	299.37	18.95	.000

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Table 4-33 implies that CWB O of the intervention group decreased significantly whereas the CWB O of the control group increased after the intervention. Thus, there was a significant effect of the intervention on CWB O of the employees after controlling for their CWB O at an earlier time [  $F(1, 102) = 4.037, p = .047$ ]. Hence the data supports hypothesis H11 that the PsyCap intervention would make an impact on CWBs of employees.

But this impact was not sustained after the training. Follow up CWB O is higher in the control group as compared to the intervention group. Hence the data does not support a significant difference between the intervention and the control group [ $F(1, 59) = .198, p = .658$ ] after a period of three months.

Looking at F ratios in Table 4-32 and Table 4-33 one can conclude that hypothesis H11 is supported by data. Thus, there was sufficient evidence to accept the hypothesis that the intervention reduced the CWBs displayed by the employees at the 5% significance level. The data is consistent with intervention having an impact on CWB. But this reduction is not sustained over a period of time.

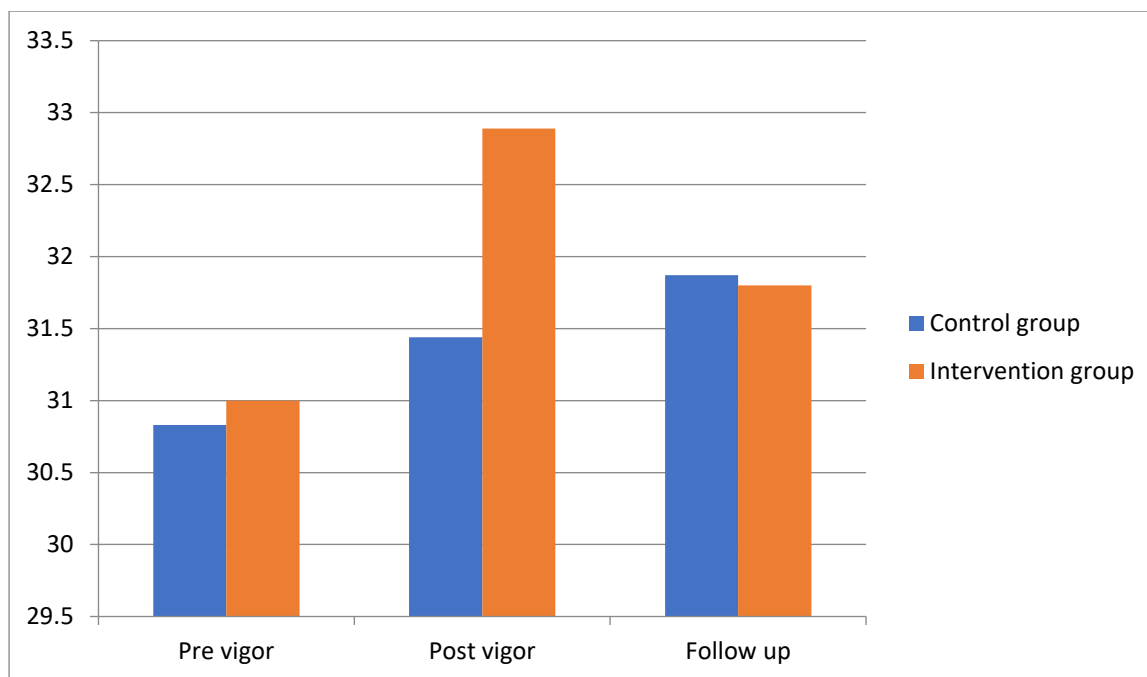
### **4.6.3 Effect of intervention on workplace emotions**

The present study focused on whether an increase in the PsyCap would increase desirable workplace emotions (WE) and reduce undesirable workplace emotion (EL). To understand the impact of increased PsyCap, an ANCOVA was applied to WE and EL components.

#### **4.6.3.1 Effect of intervention on WE**

Vigor component of work engagement was measured during Phase I, immediately after the intervention and after a gap of three months. Figure 4-10 shows the change in vigor after the intervention and after a follow up period of three months.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL



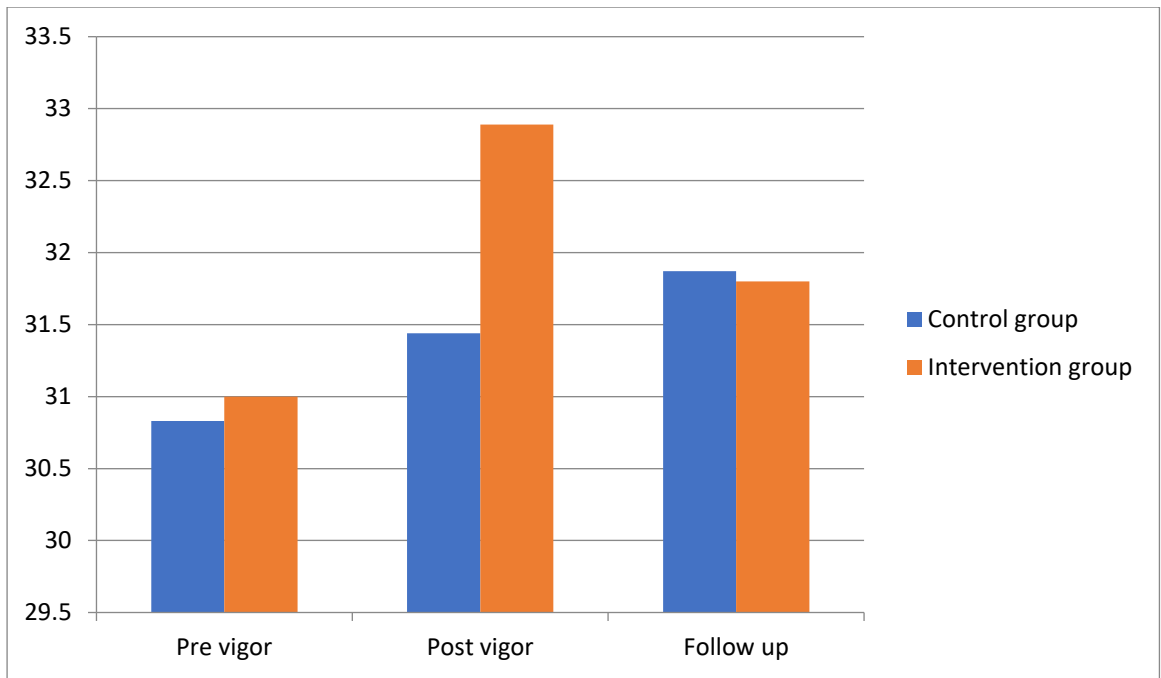
*Figure 4-10 Mean scores of Intervention modules on Vigor*

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-34 shows the results of the ANCOVA for vigor component of WE immediately after training and after a period of three months.

*Table 4-34 Effect of the intervention on Vigor*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	50.20	1	50.20	2.26	.136
Vigor	360.24	1	360.24	16.21	.000
<b>Follow Up</b>					
Type of Intervention	.02	1	.02	.00	.973
Vigor	147.83	1	147.83	8.65	.005

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL



*Figure 4-10 Mean scores of Intervention modules on Vigor*

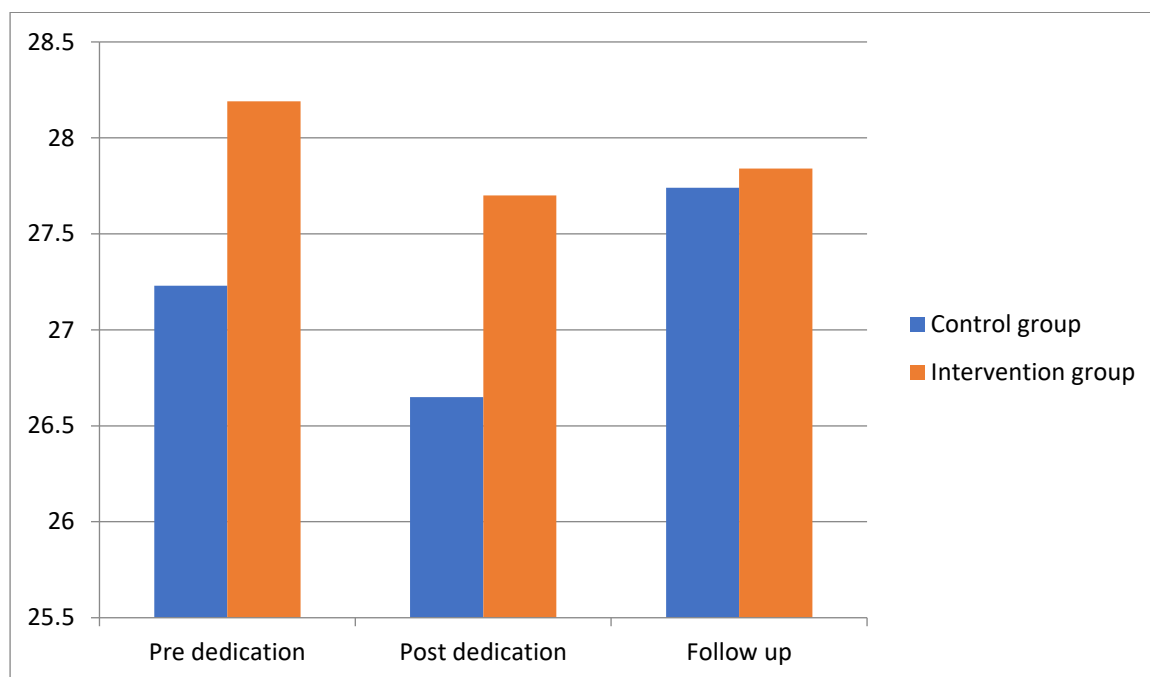
To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-34 shows the results of the ANCOVA for vigor component of WE immediately after training and after a period of three months.

Table 4-34 implies that vigor felt by employees of the intervention group increased but did not reach significance level. Vigor felt by the control group also increased after the training. Thus, there was no significant effect of the intervention on vigor of the employees



## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

post training as well as after a follow up after controlling for their vigor at an earlier time [  $F(1, 102) = 2.259, p = .136$ ]; [ $F(1, 59) = .745, p = .392$ ].



*Figure 4-11 Mean scores of the Intervention modules on Dedication*

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-35 shows the results of the ANCOVA immediately after training and after a period of three months.

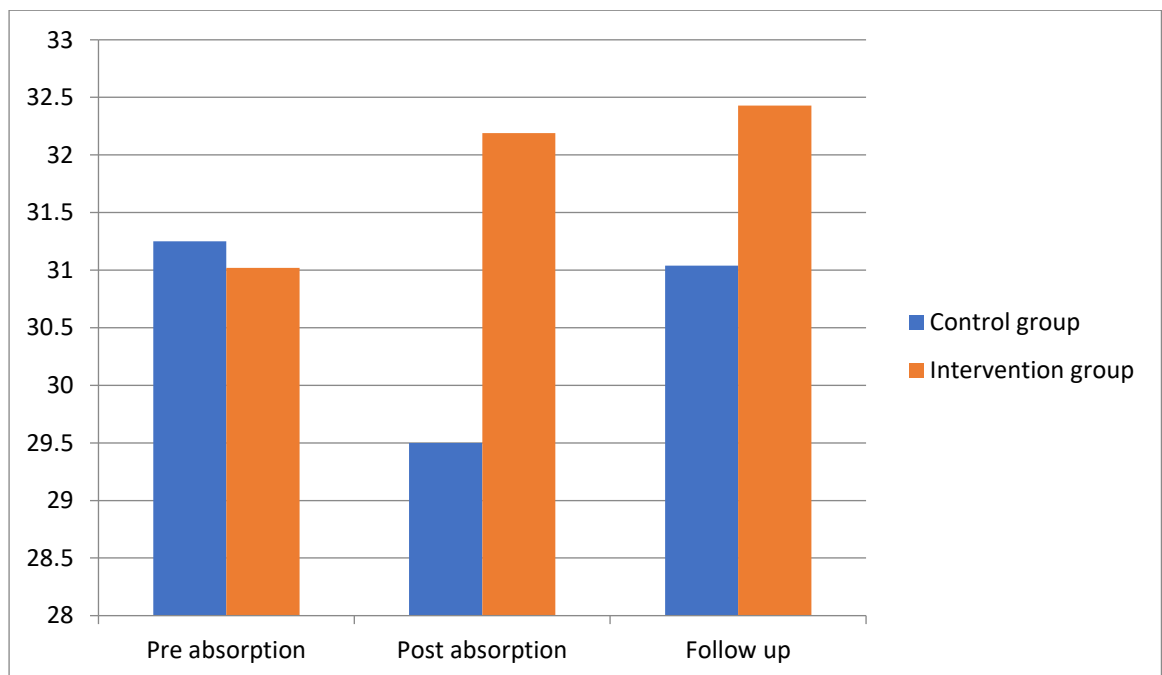
*Table 4-35 Effect of the intervention on Dedication*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	3.11	1	3.11	.20	.655
Dedication	1175.61	1	1175.61	75.83	.000
<b>Follow Up</b>					

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Source	Sum of Squares	df	Mean Square	F ratio	Sig
Type of Intervention	.53	1	.53	.03	.867
Dedication	114.31	1	114.31	6.14	.016

Table 4-35 implies that dedication felt by employees of the intervention group did not increase. Dedication felt by the control group also dipped after the training but not significantly. Thus, there was no significant effect of the intervention on dedication of the employees post training as well as after a follow up after controlling for their vigor at an earlier time [  $F(1, 102) = 2.259, p = .136$ ]; [  $F(1, 59) = .745, p = .392$ ].



*Figure 4-12 Mean scores of the intervention modules on PsyCap Absorption*

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

To account for any pre-existing differences between the two groups, covariance analysis was done. shows the results of the ANCOVA immediately after training and after a period of three months.

*Table 4-36 Effect of the intervention on PsyCap Absorption*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	205.67	1	205.67	8.27	.005
Absorption	712.86	1	712.86	28.65	.000
<b>Follow Up</b>					
Type of Intervention	25.75	1	25.75	1.47	.231
Absorption	96.27	1	96.27	5.49	.023

Table 4-36 implies that absorption of the intervention group increased significantly whereas absorption of the control group decreased after the intervention. Thus, there was a significant effect of the intervention on absorption felt by the employees after controlling for their absorption at an earlier time [  $F(1, 102) = 8.266, p = .005$ ]. Hence the data supports the hypothesis H12 partially that the PsyCap intervention would make an impact on WE of employees. Partially because not all the components of WE were impacted. Only absorption was impacted by the intervention.

But this impact was not sustained after the training. The follow up absorption is higher in the intervention group but the absorption levels of employees in the control group also increased in the intervening time. Hence the data does not support a significant

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

difference between the intervention and the control group [ $F(1, 59) = 1.467, p = .231$ ] after a period of three months.

### 4.6.3.2 Effect of intervention on EL

Hypothesis H13 stated that the experimental and the control group would differ significantly in post intervention scores of EL. The following content tests the hypothesis.

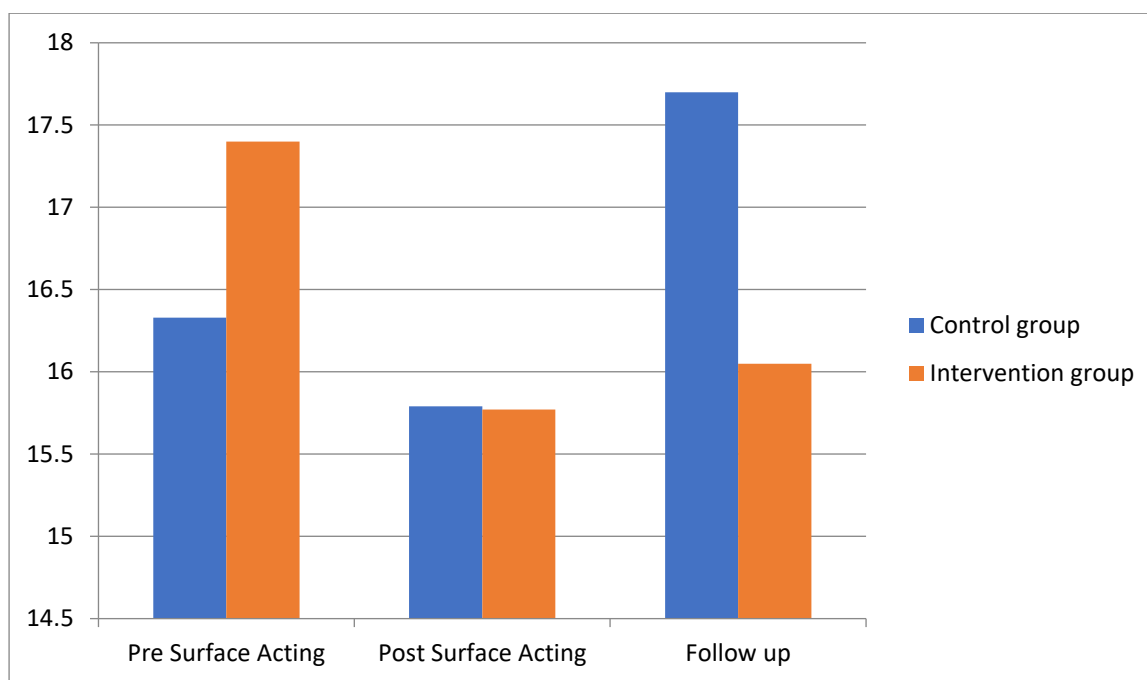


Figure 4-13 Mean scores of the Intervention modules on Surface Acting

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-37 shows the results of the ANCOVA immediately after training and after a period of three months.

Table 4-37 Effect of the intervention on Surface Acting

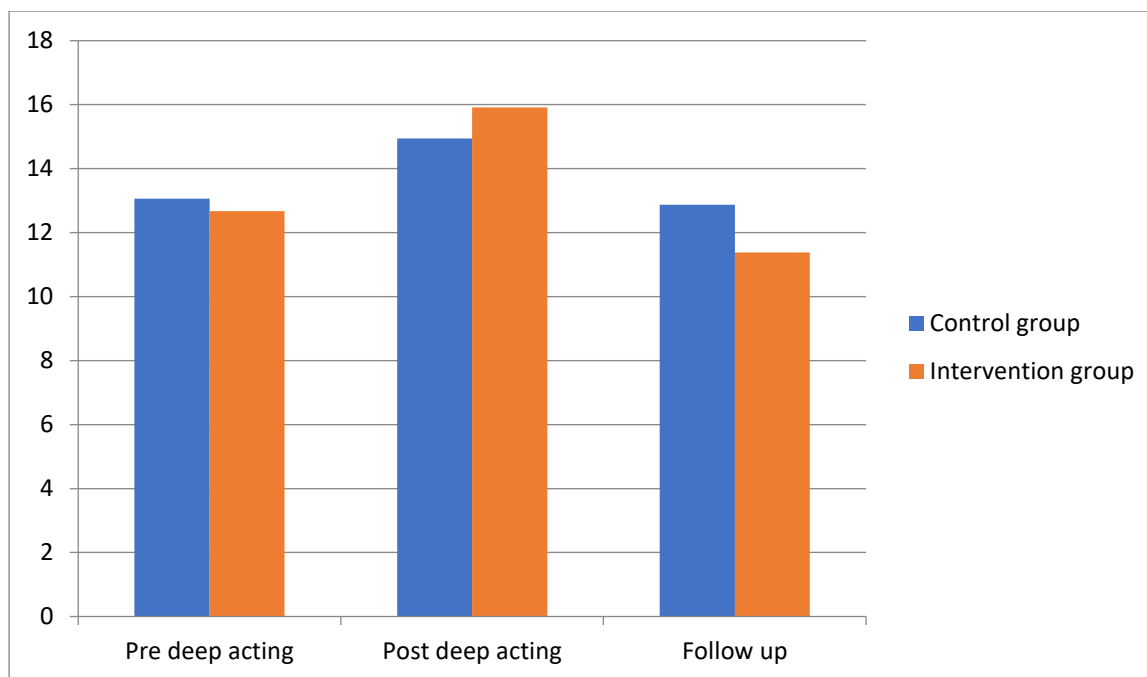
Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	9.96	1	9.96	.31	.580

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Source	Sum of	df	Mean	F ratio	Sig
	Squares		Square		
Surface Acting	788.31	1	788.31	24.43	.000
<b>Follow Up</b>					
Type of	46.93	1	46.93	1.44	.235
Intervention					
Surface Acting	306.27	1	306.27	9.39	.003

Table 4-37 suggests that surface acting component of EL of the intervention group decreased but when compared to the control group, the decrease was not found to be significant after controlling for their surface acting at an earlier time [  $F(1, 102) = .31, p = .580$ ]. The data does not support the hypothesis H13 after a follow up period of three months. Though the follow up score in surface acting is lower in the intervention group as compared to the control group, it is not significantly different from that of the control group [  $F(1, 59) = 1.439, p = .235$ ] after a period of three months. Another component of EL i.e. deep acting is analysed in Table 4-38.

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL



*Figure 4-14 Mean scores of the intervention modules on Deep Acting*

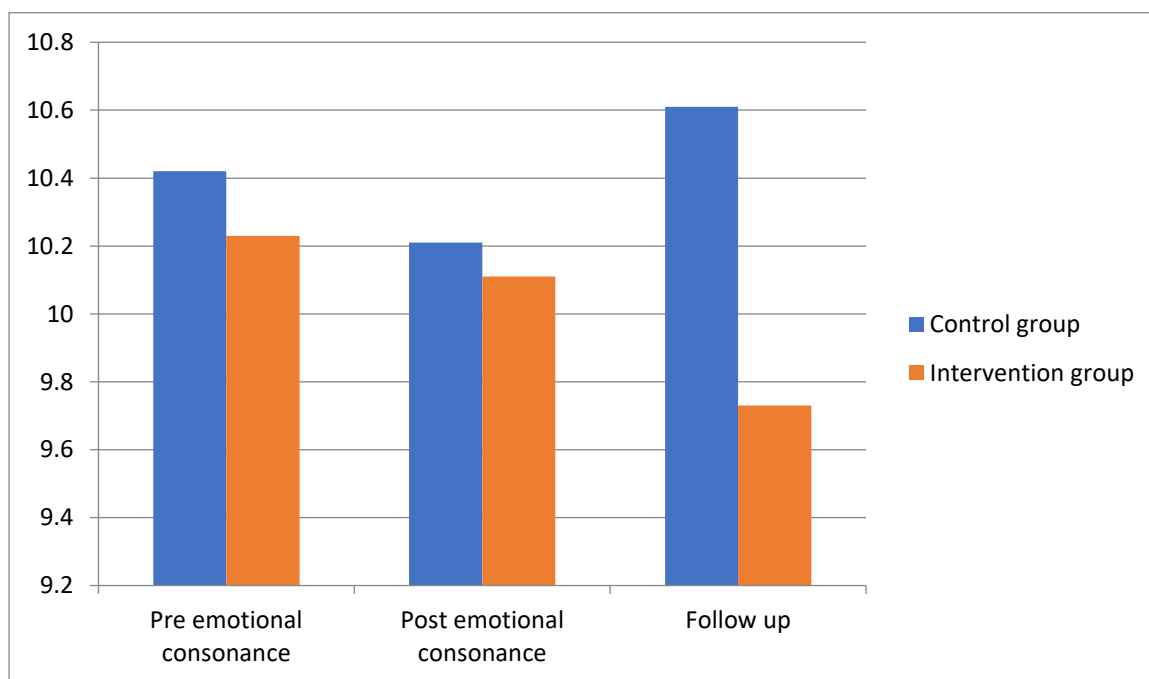
To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-38 Effect of the intervention on Deep acting shows the results of the ANCOVA immediately after training and after a period of three months.

*Table 4-38 Effect of the intervention on Deep acting*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	23.95	1	23.95	2.80	.097
Deep Acting	2.39	1	2.39	.28	.598
<b>Follow Up</b>					
Type of Intervention	28.74	1	28.74	1.79	.187
Deep Acting	9.65	1	9.65	.60	.442

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Table 4-38 suggests that deep acting component of EL of the intervention group increased but when compared to the control group, the increase was not found to be significant after controlling for their surface acting at an earlier time [ $F(1, 102) = 2.798, p = .097$ ]. The data does not support the hypothesis H13 after a follow up period of three months. The follow up score of surface acting is higher in the control group as compared to the experimental group, it is not significantly different from that of the intervention group [ $F(1, 59) = 1.147, p = .289$ ] after a period of three months. Another component of EL i.e. emotional consonance is analysed in Table 4-39.



*Figure 4-15 Mean scores of the intervention modules on Emotional Consonance*

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-39 shows the results of the ANCOVA immediately after training and after a period of three months.

*Table 4-39 Effect of the intervention on Emotional Consonance*

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

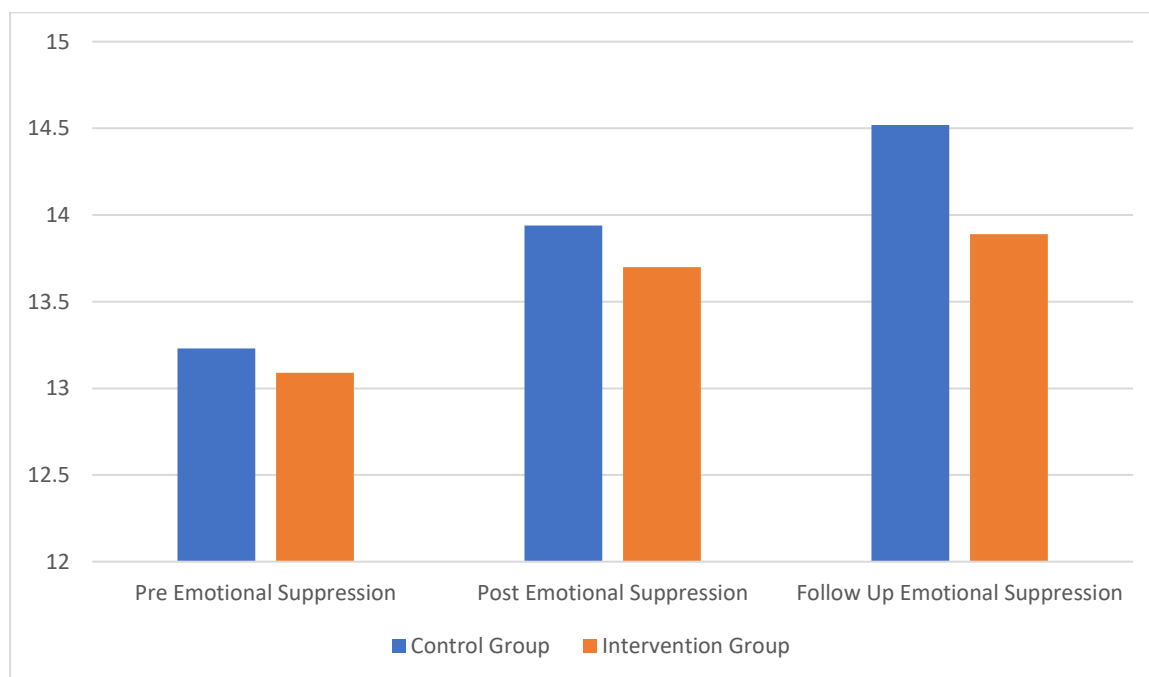
Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	0.16	1	0.16	.03	.874
Emotional Consonance	9.60	1	9.60	1.55	.215
<b>Follow Up</b>					
Type of Intervention	8.01	1	8.01	1.26	.266
Emotional Consonance	63.45	1	63.45	10.00	.002

Table 4-39 suggests that emotional consonance component of EL of the intervention group decreased but when compared to the control group, the decrease was not found to be significant after controlling for their emotional consonance at an earlier time [  $F(1, 102) = .025, p = .874$ ]. The data also does not support the hypothesis H13 after a follow up period of three months. Though the follow up emotional consonance is lower in the intervention group as compared to the control group, it is not significantly different from that of the control



## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

group [ $F(1, 59) = 1.263, p = .266$ ] after a period of three months. Another component of EL i.e. emotional suppression is analyzed in Figure 4-16.



*Figure 4-16 Mean Scores of the Intervention modules on Emotional Suppression*

To account for any pre-existing differences between the two groups, covariance analysis was done. Table 4-35Table 4-40 shows the results of the ANCOVA immediately after training and after a period of three months.

*Table 4-40 Effect of the intervention on Emotional Suppression*

Source	Sum of Squares	df	Mean Square	F ratio	Sig
<b>Post Training</b>					
Type of Intervention	.97	1	.97	.09	.767
Emotional Suppression	139.93	1	139.93	12.65	.001
<b>Follow Up</b>					

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Source	Sum of Squares	df	Mean Square	F ratio	Sig
Type of Intervention	1.30	1	1.30	.09	.766
Emotional Suppression	187.34	1	187.34	12.95	.001

Looking at F ratios in Table 4-37, Table 4-38, Table 4-39 and Table 4-40 one can conclude that hypothesis H13 is not supported by data. Thus, there was insufficient evidence to accept hypothesis H13 that the intervention reduced the EL felt by the employees at the 5% significance level. The data is consistent with intervention having no effect on EL.

### 4.7 Effect of Age on PsyCap, OCB, CWB, WE and EL

Initially, it was studied whether age related selection was present in different sector. A one-way ANOVA found significant difference in mean age of employees in industrial and commercial service sector and manufacturing goods sector; mean age of manufacturing sector and pharmaceutical research sector; and pharmaceutical research sector employees' age and industrial and commercial service sector. There is no significant difference in the mean age of employees of healthcare sector and manufacturing goods sector.

A question of interest that was explored was whether the employees of different age groups differed on the variables of interest i.e. PsyCap and its components, WE and its components, OCB and its components, CWB and its components, EL and its components. An independent one-way ANOVA was used to test whether there was any significant difference between the employees in different age groups. The employees were divided into four different age groups i.e. from 18-25 years, 26-35 years, 36-45 years and 46-75 years.

#### 4.7.1 Age and PsyCap

## DEVELOPMENT OF MODULE ON PSYCHOLOGICAL CAPITAL

Do the psychological capacities of self efficacy, hope, resilience and optimism mature with age? This was the question explored in this section. Table 4-41 shares the results of one-way ANOVA across different age groups.

*Table 4-41 Differences in PsyCap and its dimensions across different age groups*

PsyCap & its dimensions	18-25 years (n= 93)	26-35 years (n = 178)	36-45 years (n = 167)	46-75 years (n = 68)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Efficacy	28.59 <sup>a</sup> (3.93)	28.88 <sup>a</sup> (4.04)	30.53 <sup>b</sup> (3.79)	30.49 <sup>b</sup> (4.17)	8.137**
Hope	29.16 <sup>ab</sup> (4.13)	28.69 <sup>a</sup> (4.34)	30.11 <sup>b</sup> (3.67)	30.22 <sup>b</sup> (3.393)	4.739**
Resilience	27.10 <sup>a</sup> (4.35)	27.23 <sup>a</sup> (4.06)	28.47 <sup>b</sup> (3.65)	28.09 <sup>ab</sup> (3.27)	4.031**
Optimism	25.44 (3.75)	25.42 (3.43)	26.12 (3.47)	26.70 (3.80)	2.868 *
PsyCap	110.29 <sup>a</sup> (11.97)	110.22 <sup>a</sup> (11.82)	115.23 <sup>b</sup> (11.06)	115.51 <sup>ab</sup> (10.37)	8.256**

\*p<.05, \*\*p<.01

*Note:* The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-41 suggests, all the components of PsyCap and PsyCap differ significantly across age groups. A post hoc Tukey indicated that efficacy scores of employees with ages 36-45 years as compared to 18-25 years are significantly higher. The employees with age group of 46-55 years have higher efficacy scores as compared to younger employees from the age group of 18 – 25 years. This indicates that the maturing impact of age works as far as efficacy goes.

A post hoc Tukey test indicated that the hope scores of employees from 36-45 age group were significantly higher than employees from age range of 26 – 35 years and 46 – 75 years.

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The Tukey Post Hoc test showed that there is a significantly higher resilience in the individuals of 36-45 age group as compared to individuals from 18 – 25 age group and 26-35 age group.

A post hoc Tukey test indicated that the mean PsyCap scores were significantly higher for 36 – 45 years employees as compared to 18 – 25 years. The scores were also significantly higher for 46 – 75 years as compared to 18 – 25 years. There was a significant difference in the PsyCap scores of employees from 26 – 35 and 46 – 75 years.

### 4.7.2 Age and WE

*Table 4-42* Difference in WE and its components across age groups

WE & components	18-25 years (n= 93)	26-35 years (n = 178)	36-45 years (n = 167)	46-75 years (n = 68)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Vigor	32.73 (5.10)	33.01 (7.68)	34.58 (4.27)	34.48 (3.96)	3.387*
Dedication	29.30 (4.16)	28.17 <sup>a</sup> (5.73)	30.07 <sup>b</sup> (3.52)	30.34 <sup>b</sup> (2.92)	6.679**
Absorption	30.62 <sup>a</sup> (5.39)	30.73 <sup>a</sup> (6.16)	33.33 <sup>b</sup> (4.89)	33.06 <sup>b</sup> (4.93)	9.227**
Work Engagement	92.66 <sup>a</sup> (12.53)	91.72 <sup>a</sup> (14.48)	97.98 <sup>b</sup> (10.57)	97.88 <sup>b</sup> (9.35)	9.783**

<sup>i</sup>p<.05, \*\*p<.01

*Note:* The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-42 suggests, all the components of work engagement and its components differ significantly across age groups. A post hoc Tukey indicated that dedication scores of employees with ages 36-45 years as compared to 26 – 35 years are significantly higher. The employees with age group of 46-55 years have higher dedication scores as compared to younger employees from the age group of 26 – 35 years. This indicates that the with increasing age employees become more dedicated and committed to their jobs. The post hoc

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Tukey test for absorption reveals that employees from the age group of 36 – 45 and 46 – 75 are more absorbed in their jobs as compared to employees in the age group of 18 – 25 years.

Similarly, the older employees 36 – 45 years and 46 – 75 years are more absorbed in their jobs as compared to employees in 26 – 35 age group. In overall WE, the older employees 36 – 45 years and 46 – 75 years are more engaged in their jobs as compared to employees in 18 – 25 age group. Employees in the age group of 36 – 45 years and 46 – 75 years report higher WE score as compared to employees in 18 – 25 years age group.

### 4.7.3 Age and EL

*Table 4-43* Difference in EL and its components across age groups

Variable	18-25 years (n= 93)	26-35 years (n = 178)	36-45 years (n = 167)	46-75 years (n = 68)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Surface Acting	17.94 (5.75)	17.22 (5.35)	16.56 (5.07)	17.96 (6.06)	1.773
Deep Acting	14.20 <sup>a</sup> (3.89)	12.65 <sup>b</sup> (4.45)	13.51 <sup>a</sup> (4.30)	13.37 <sup>a</sup> (4.34)	2.879*
Emotional Consonance	10.81 <sup>a</sup> (2.56)	10.33 <sup>a</sup> (2.81)	11.03 <sup>b</sup> (2.08)	10.72 <sup>a</sup> (2.37)	2.390
Emotional Suppression	14.91 (3.93)	14.08 (4.20)	13.65 (3.65)	13.48 (4.05)	2.501
Emotional Labor	57.86 (11.75)	54.29 (11.89)	54.75 (10.50)	55.52 (12.73)	2.114

\*p<.05, \*\*p<.01,

*Note:* The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-43 suggests, emotional labor and its components were not found significantly different except for Deep Acting scores across different age groups of employees. This implies that employees across different age groups experience equal amount

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of emotional labor. The Tukey test reveals that the youngest employees i.e. from the age group of 18 – 25 years' use higher level of DA as compared to 26 – 35-year-old employees. Thus, in early years the employees feel deeply the emotions that need to be expressed, leading to greater EL and it is corroborated by nursing data where intention to leave the profession is at highest level in early years.

### 4.7.4 Age and OCB

*Table 4-44* Difference in OCB and its components across age groups

OCB & components	18-25 years (n= 93)	26-35 years (n = 178)	36-45 years (n = 167)	46-75 years (n = 68)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Helping	33.06 <sup>a</sup> (11.84)	33.57 <sup>a</sup> (11.86)	35.62 <sup>ac</sup> (11.98)	28.51 <sup>b</sup> (13.96)	5.474**
Sportsmanship	18.06 <sup>a</sup> (5.43)	18.90 <sup>a</sup> (5.06)	21.17 <sup>b</sup> (4.98)	19.97 <sup>a</sup> (4.90)	9.339**
Civic Virtue	13.38 <sup>a</sup> (5.12)	13.43 <sup>a</sup> (4.61)	14.60 <sup>a</sup> (4.85)	11.93 <sup>b</sup> (5.62)	4.997**
OCB	64.51 <sup>a</sup> (17.60)	65.90 <sup>a</sup> (17.98)	71.39 <sup>b</sup> (18.88)	60.40 <sup>a</sup> (21.00)	6.614**

\*p<.05, \*\*p<.01

*Note:* The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-44 suggests all the components of OCB differ significantly across various age groups. A post hoc Tukey indicated that helping scores of employees with ages 36-45 years as compared to 18-25 years and 26-35 are significantly higher. The employees with age group of 46-55 years have lower helping scores as compared to younger employees from all the other age groups. This indicates that the maturing impact of age works as far as helping goes but probably after attaining the age of 45 years the individual willingness to help goes down. A post hoc Tukey indicated that sportsmanship scores of employees with ages 36-45 years as compared to 18-25 years and 26- 35 years is significantly higher. The employees with age group of 46-55 years have slightly lower efficacy scores as compared to

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younger employees. This indicates that sportsmanship peaks at the age of 36- 45 years and then tapers down. Civic virtue scores of employees with ages 18-25, 26- 35 and 36-45 years were not significantly different but the civic virtues displayed by employees from 46-75 years decreased significantly.

### 4.7.5 Age and CWB

*Table 4-45 Differences in CWB and its components across age groups*

Variable	18-25 years (n= 93)	26-35 years (n = 178)	36-45 years (n = 167)	46-75 years (n = 68)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
CWB I	10.03 <sup>a</sup> (4.59)	9.91 <sup>a</sup> (3.42)	9.21 <sup>ab</sup> (3.32)	8.28 <sup>b</sup> (2.40)	4.549**
CWB O	15.26 <sup>a</sup> (5.92)	14.78 <sup>ab</sup> (4.85)	14.09 <sup>ab</sup> (4.71)	13.19 <sup>b</sup> (3.48)	2.907*
CWB	25.29 <sup>a</sup> (9.86)	24.69 <sup>ab</sup> (7.53)	23.30 <sup>ab</sup> (7.45)	21.48 <sup>b</sup> (5.43)	4.118**

\*p<.05, \*\*p<.01

*Note:* The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

Table 4-45 reveals that there is a significant difference in mean CWB I scores, mean CWB O scores and overall CWB scores across employees of different age groups. A post hoc Tukey indicated that employees in the age group of 46 – 75 years performed significantly fewer individual counterproductive workplace behaviors than employees from age group of 18 – 25 years and employees from the age group 26 – 35 years. Post hoc Tukey also indicated that employees in the age group of 46 – 75 years performed significantly fewer organizational counterproductive workplace behaviors than employees from age group of 18 – 25 years.

Related to overall CWB, post hoc Tukey indicated that employees in the age group of 46 – 75 years performed significantly fewer counterproductive workplace behaviors than employees from age group of 18 – 25 years and employees from the age group 26 – 35 years.

### 4.8 Impact of Work experience on PsyCap, OCB, CWB, WE and EL

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Work is a central construct in one's life. As an individual moves from adolescence to adulthood, work has a critical meaning to the person. Attaining work experience influences an individual tremendously and may affect his/her sense of *self*. To understand the impact of work experience on PsyCap and its dimensions, OCB and its components, CWB I and O, WE and its components and EL and its components, an independent one-way ANOVA was used. It tested whether there was any significant difference between the employees with different work experience. The employees were divided into four different groups i.e. less than 3 year of work experience, 3 to 7 years of work experience, 7- 10 years of work experience and greater than 10 years of work experience. Table 4-46, Table 4-47, Table 4-48, Table 4-49 and Table 4-50 show the relation between work experience of employees and PsyCap, OCB, CWB, WE and EL.

*Table 4-46 Effect of Work Experience on PsyCap and its components*

Variable	< 3 Years (n= 146)	3 to 7 years (n = 154)	7- 10 years (n = 55)	> 10 years (n = 169)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Efficacy	29.62 <sup>a</sup> (3.78)	28.64 <sup>ab</sup> (4.66)	29.67 <sup>a</sup> (3.92)	30.51 <sup>ac</sup> (3.45)	5.962**
Hope	29.21 <sup>a</sup> (4.27)	28.91 <sup>ab</sup> (4.40)	29.36 <sup>a</sup> (4.07)	30.28 <sup>ac</sup> (3.18)	3.610*
Resilience	27.12 <sup>a</sup> (4.31)	27.40 <sup>a</sup> (3.96)	28.15 <sup>a</sup> (3.40)	28.38 <sup>b</sup> (3.71)	3.301*
Optimism	26.07 (3.42)	25.22 (3.67)	26.15 (3.79)	26.20 (3.47)	2.472
PsyCap	112.03 <sup>a</sup> (11.83)	110.17 <sup>ac</sup> (12.91)	113.33 <sup>ab</sup> (11.24)	115.38 <sup>b</sup> (9.85)	5.766**

\*p<.05, \*\*p<.01

*Note:* The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-46 suggests, all the dimensions of PsyCap except optimism and PsyCap differ significantly across work experience. A post hoc Tukey indicated that efficacy and



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hope of employees with work experience of more than 10 years differed significantly from that of 3 to 7 years. In case of resilience, the employees with less than three years of work experience had significantly lower resilience than those with more than 10 years of work experience. This indicates that higher work experience does impact efficacy, hope and resilience.

A post hoc Tukey test indicated that the mean PsyCap scores were significantly higher for employees with more than 10 years of work experience as compared to employees with less than 3 and 3- 7 years of work experience.

*Table 4-47 Effect of Work Experience in OCB and its components*

OCB & its components	< 3 Years (n= 146)	3 to 7 years (n = 154)	7- 10 years (n = 55)	> 10 years (n = 169)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Helping	35.75 <sup>a</sup> (10.93)	33.10 <sup>ac</sup> (11.80)	37.04 <sup>a</sup> (10.26)	30.24 <sup>bc</sup> (14.13)	7.188**
Sportsmanship	19.58 (5.20)	18.66 (5.26)	20.53 (5.11)	20.10 (5.36)	2.707*
Civic Virtue	14.51 <sup>a</sup> (4.51)	13.27 <sup>ac</sup> (4.75)	14.93 <sup>a</sup> (4.50)	12.47 <sup>bc</sup> (5.68)	6.006**
OCB	69.84 <sup>a</sup> (16.89)	65.03 <sup>ac</sup> (18.13)	72.49 <sup>a</sup> (17.00)	62.82 <sup>bc</sup> (21.87)	5.748**

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-47 suggests, all the dimensions of OCB differ significantly across work experience. A post hoc Tukey indicated that helping behaviors and civic virtues were significantly higher in employees with work experience of 7 to 10 years as compared to employees with more than 10 years of work experience of 3 to 7 years. Also, employees with less than three years of work experience showed significantly higher helping behaviors than those with more than 10 years of work experience. This indicates that people who have

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entered the workforce and those who have matured with 7 to 10 years of work experience tend to offer help and display civic virtues.

A post hoc Tukey test indicated that the mean OCB scores were significantly higher for employees with less than three years of work experience and 7 to 10 years of work experience, as compared to employees with more than 10 years of work experience.

*Table 4-48 Effect of Work Experience in CWB and its components*

CWB	< 3 Years (n= 146)	3 to 7 years (n = 154)	7- 10 years (n = 55)	> 10 years (n = 169)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
CWB I	9.60 <sup>ac</sup> (3.85)	9.82 <sup>a</sup> (3.44)	10.35 <sup>a</sup> (4.71)	8.76 <sup>bc</sup> (2.78)	4.002**
CWB O	14.53 <sup>ac</sup> (4.92)	14.51 <sup>ad</sup> (3.73)	15.78 <sup>a</sup> (8.02)	13.76 <sup>bcd</sup> (4.35)	2.510
CWB	24.14 <sup>ac</sup> (8.09)	24.33 <sup>ad</sup> (6.38)	26.13 <sup>a</sup> (12.22)	22.52 <sup>bcd</sup> (6.67)	3.499*

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-48 suggests, individual CWBs differ significantly across work experience. A post hoc Tukey indicated that employees with work experience of more than 10 years displayed significantly lower CWBs as compared to employees from 3 to 7 years of work experience and 7 to 10 years of work experience. This indicates that greater work experience does impact CWB I.

A post hoc Tukey test indicated that the mean OCB and OCB O scores were significantly lower for employees with more than 10 years of work experience as compared to employees with 7 to 10 years of work experience.

*Table 4-49 Effect of Work Experience on WE and its components*

WE & its components	< 3 Years (n= 146)	3 to 7 years (n = 154)	7- 10 years (n = 55)	> 10 years (n = 169)	F ratio
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	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Vigor	32.84 <sup>a</sup> (5.08)	32.85 <sup>a</sup> (4.84)	32.98 <sup>ac</sup> (5.25)	35.17 <sup>bc</sup> (7.15)	6.037**
Dedication	29.71 (4.09)	28.53 (4.75)	28.87 (4.58)	29.66 (4.71)	2.359
Absorption	30.99 (5.35) <sup>a</sup>	31.38 (5.25) <sup>a</sup>	32.15 (5.40) <sup>a</sup>	32.72 (6.14) <sup>b</sup>	2.902*
Work	93.53 <sup>a</sup>	92.76 <sup>ac</sup>	94.00 <sup>ad</sup>	97.34 <sup>bd</sup>	4.143**
Engagement	(12.24)	(12.47)	(12.44)	(13.09)	

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-49 suggests, all the dimensions of WE except dedication and WE itself, differ significantly across work experience. A post hoc Tukey indicated that WE, vigor and dedication of employees with work experience of more than 10 years differed significantly from that of employees with less than 3 and 3 to 7 years of work experience. In case of absorption, the employees with more than ten years of work experience differed significantly and had significantly higher absorption than those with lesser work experience. This indicates that higher work experience does impact vigor and absorption experienced.

A post hoc Tukey indicated that the mean WE scores were significantly higher for employees with more than 10 years of work experience as compared to employees with less than 3 and 3- 7 years and 7 to 10 years of work experience.

*Table 4-50 Effect of Work Experience in EL and its components*

EL & its components	< 3 Years (n= 146)	3 to 7 years (n = 154)	7- 10 years (n = 55)	> 10 years (n = 169)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Surface Acting	16.99 (5.75)	17.60 (5.24)	17.02 (5.34)	17.30 (5.42)	.357
Deep Acting	13.14 (4.80)	13.06 (4.15)	13.02 (4.29)	13.98 (3.99)	1.672

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Emotional	10.54 (2.91)	10.51 (2.53)	11.05 (1.77)	10.88 (2.37)	1.126
Consonance					
Emotional	14.40 <sup>a</sup> (4.19)	14.12 <sup>a</sup> (4.07)	12.22 <sup>b</sup> (3.82)	14.18 <sup>a</sup> (3.56)	4.464**
Suppression					
EL	55.07 (12.94)	55.29 (10.86)	53.31 (9.10)	56.34 (11.57)	1.020

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-50 suggests, only emotional suppression dimension of EL differs significantly across work experience levels. A post hoc Tukey indicated that emotional suppression of employees with work experience of 7 to 10 years is significantly lower from that all the other employees.

### 4.9 Difference in PsyCap, OCB, CWB, WE and EL across gender

Would gender make a difference as far as PsyCap and workplace behaviors and workplace emotions are concerned? This is the question which is explored in the following section.

*Table 4-51 Difference in PsyCap and its dimensions and OCB, CWB, WE and EL across gender*

Variables	Male		Female		t	Sig
	Mean	SD	Mean	SD		
Efficacy	29.83	4.06	29.12	3.97	1.963	.050
Hope	29.27	4.12	29.81	3.74	-1.517	.130
Resilience	27.52	4.07	28.10	3.62	-1.707	.089
Optimism	25.93	3.58	25.74	3.49	.573	.567
PsyCap	112.54	12.19	112.77	10.62	-.221	.825

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Variables	Male		Female		t	Sig
	Mean	SD	Mean	SD		
Helping	38.62	8.24	23.93	12.98	14.142	.000
Sportsmanship	20.29	5.07	18.35	5.39	4.140	.000
Civic virtue	15.38	3.99	10.19	5.08	12.184	.000
CWB I	9.96	3.67	8.70	3.62	3.839	.000
CWB O	14.79	4.64	13.95	6.00	1.800	.072
Vigor	33.20	4.84	34.38	7.23	-2.253	.025
Dedication	29.14	4.29	29.41	4.96	-.675	.500
Absorption	32.01	5.24	31.28	6.26	1.441	.150
Surface acting	17.23	5.19	17.49	5.98	-.502	.616
Deep acting	12.99	4.15	14.06	4.56	-2.678	.008
Emotional Consonance	10.52	2.40	11.01	2.72	-2.155	.032
Emotional Suppression	13.47	3.89	15.03	3.92	-4.446	.000

As Table 4-51 suggests there is no significant difference in PsyCap and its components across gender except PsyCap efficacy. In case of PsyCap efficacy males feel more efficacious than females.

In case of OCB, all the three facets show a significant difference. Table 4-51 suggests that Males show more helping, sportsmanship behaviors, display more civic virtues as compared to females in the present study.

In case of CWB I females display lesser CWB Is as compared to males. In case of CWB O there is no significant difference in males and females.

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In case of WE, all the dimensions except vigor do not show a significant difference between males and females. In case of vigor females show a significantly higher degree of vigor as compared to males.

In case of EL, there is no significant difference between males and females as far as surface acting goes. In case of deep acting, emotional consonance and emotional suppression, females show a significantly higher level than males.

### 4.10 Impact of the sector on PsyCap and OCB, CWB, WE, EL

Will PsyCap and other outcome variables vary across different sectors or not? This was the research question explored in this section. The employees belonged to four different sectors i.e. service sector, manufacturing sector, healthcare sector and pharmaceutical sector.

*Table 4-52 Effect of Sector on PsyCap*

PsyCap and its components	Service sector (n=158)	Manufacturing sector (n=157)	Healthcare sector (n=139)	Pharmaceutical Research sector (n=71)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Efficacy	28.37 <sup>a</sup> (4.66)	30.04 <sup>b</sup> (3.78)	29.24 <sup>a</sup> (3.53)	31.65 <sup>c</sup> (2.98)	13.84**
Hope	28.20 <sup>a</sup> (4.56)	29.38 <sup>b</sup> (3.91)	30.13 <sup>bd</sup> (3.31)	30.94 <sup>cd</sup> (3.25)	10.84**
Resilience	26.65 <sup>a</sup> (4.40)	27.82 <sup>b</sup> (4.19)	28.57 <sup>b</sup> (3.15)	28.15 <sup>b</sup> (3.08)	6.64**
Optimism	25.85 <sup>ab</sup> (3.76)	25.50 <sup>a</sup> (3.77)	25.46 <sup>a</sup> (3.51)	27.02 <sup>b</sup> (3.22)	3.87**
PsyCap	109.08 <sup>a</sup> (13.31)	112.17 <sup>ac</sup> (14.57)	113.40 <sup>bc</sup> (9.51)	117.77 <sup>b</sup> (8.83)	9.39**

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-52 suggests, all the dimensions of PsyCap differ significantly across sector. A post hoc Tukey indicated that efficacy, hope and optimism are significantly higher in employees from pharmaceutical research sector as compared to other sectors. Resilience is

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significantly higher in healthcare sector as compared to other sectors. Efficacy, hope and resilience are significantly lower in the service sector. PsyCap as a whole was highest in employees from the pharmaceutical research sector.

The next outcome variable that was explored was OCB and its facets. The results of an ANOVA are displayed in Table 4-53.

*Table 4-53 Effect of Sector on OCB*

OCB and its facets	Service sector (n=158)	Manufacturing sector (n=157)	Healthcare sector (n=139)	Pharmaceutical Research sector (n=81)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Helping	38.45 <sup>a</sup> (7.26)	38.57 <sup>a</sup> (8.34)	17.78 <sup>b</sup> (9.70)	40.17 <sup>a</sup> (6.99)	225.19**
Sportsmanship	19.25 <sup>a</sup> (4.77)	20.26 <sup>a</sup> (4.80)	17.42 <sup>b</sup> (5.82)	22.74 <sup>c</sup> (4.17)	20.701**
Civic Virtue	15.39 <sup>a</sup> (3.81)	15.31 <sup>a</sup> (4.18)	8.00 <sup>b</sup> (3.74)	15.94 <sup>a</sup> (3.48)	129.14**
OCB	73.08 <sup>ae</sup> (11.90)	73.68 <sup>ce</sup> (15.33)	43.20 <sup>b</sup> (13.58)	78.85 <sup>d</sup> (12.77)	186.70**

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-53 suggests, all the facets of OCB differ significantly across sector. A post hoc Tukey indicated that helping, sportsmanship and civic virtue are significantly lower in employees from healthcare sector as compared to other sectors. Pharmaceutical research sector is significantly higher in helping, sportsmanship and civic virtue as compared to other sectors. OCB as a whole was highest in employees from the pharmaceutical research sector.

The next outcome variable that was explored was CWB and its components. The results of an ANOVA are displayed in Table 4-54.

*Table 4-54 Effect of Sector on CWB*

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CWB and its components	Service sector (n=158)	Manufacturing sector (n=157)	Healthcare sector (n=139)	Pharmaceutical Research sector (n=71)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Interpersonal CWB	9.78 <sup>a</sup> (3.21)	10.60 <sup>c</sup> (4.26)	8.63 <sup>b</sup> (3.91)	8.38 <sup>b</sup> (2.10)	10.52**
Organizational CWB	15.46 <sup>ac</sup> (4.30)	14.77 <sup>cd</sup> (5.41)	13.64 <sup>bd</sup> (6.58)	14.49 <sup>bd</sup> (5.18)	4.34**
CWB	25.25 <sup>a</sup> (6.79)	25.23 <sup>a</sup> (8.98)	22.27 <sup>b</sup> (10.24)	21.88 <sup>b</sup> (4.18)	6.27**

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-54 suggests, all the facets of CWB differ significantly across sector. A post hoc Tukey indicated that interpersonal CWB are significantly higher in employees from manufacturing sector as compared to other sectors and organizational CWBs are significantly higher in manufacturing sector as compared to other sectors. CWB as a whole was higher in employees from the service and manufacturing sector.

The next outcome variable that was explored was WE and its components. The results of an ANOVA across sector are displayed in Table 4-55.

*Table 4-55 Effect of Sector on WE*

WE and its components	Service sector (n=158)	Manufacturing sector (n=157)	Healthcare sector (n=139)	Pharmaceutical Research sector (n=71)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Vigor	31.92 <sup>a</sup> (5.22)	33.59 <sup>b</sup> (4.70)	34.98 <sup>b</sup> (7.83)	34.79 <sup>b</sup> (3.97)	8.33**



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WE and its components	Service sector (n=158)	Manufacturing sector (n=157)	Healthcare sector (n=139)	Pharmaceutical Research sector (n=71)	F ratio
Dedication	27.56 <sup>a</sup> (5.02)	29.49 <sup>b</sup> (3.67)	29.75 <sup>bd</sup> (5.11)	31.07 <sup>cd</sup> (2.68)	13.20**
Absorption	30.83 <sup>a</sup> (5.16)	31.61 <sup>a</sup> (5.46)	31.12 <sup>a</sup> (6.59)	34.77 <sup>b</sup> (4.04)	10.19**
Work Engagement	90.32 <sup>a</sup> (13.01)	94.15 <sup>b</sup> (13.24)	95.60 <sup>b</sup> (14.24)	100.63 <sup>c</sup> (8.47)	12.09**

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-55 suggests, all the facets of WE differ significantly across sector. A post hoc Tukey indicated that vigor is significantly lower in employees from service sector as compared to other sectors. Dedication is significantly higher in healthcare sector and pharmaceutical research sector as compared to other sectors. Absorption is significantly higher in pharmaceutical research sector as compared to other sectors. WE as a whole is higher in employees from the pharmaceutical research sector.

The next outcome variable that was explored was EL and its components. The results of an ANOVA across sector are displayed in Table 4-56.

*Table 4-56 Effect of Sector on EL*

EL and its components	Service sector (n=158)	Manufacturing sector (n=157)	Healthcare sector (n=139)	Pharmaceutical Research sector (n=81)	F ratio
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Surface Acting	17.75 <sup>ad</sup> (5.52)	17.06 <sup>a</sup> (5.23)	18.09 <sup>ac</sup> (6.02)	15.60 <sup>bd</sup> (4.61)	4.05**

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EL and its components	Service sector (n=158)	Manufacturing sector (n=157)	Healthcare sector (n=139)	Pharmaceutical Research sector (n=81)	F ratio
Deep Acting	12.44 <sup>a</sup> (4.48)	13.70 <sup>b</sup> (4.04)	14.83 <sup>c</sup> (4.10)	12.14 <sup>a</sup> (4.21)	10.72**
Emotional	10.72 (2.69)	10.49 (2.38)	10.86 (2.73)	10.73 (2.06)	.57
Consonance					
Emotional	13.91 <sup>a</sup> (4.01)	13.70 <sup>a</sup> (3.96)	15.22 <sup>b</sup> (3.97)	12.85 <sup>a</sup> (3.44)	7.18**
Suppression					
EL	54.82 <sup>a</sup> (11.30)	54.66 <sup>a</sup> (11.17)	58.99 <sup>b</sup> (13.13)	51.32 <sup>ac</sup> (9.69)	8.20**

\*p<.05, \*\*p<.01

Note: The values that do not differ significantly share the same superscript and values which differ significantly have different superscripts.

As Table 4-56 suggests, all the facets of EL differ significantly across sector. A post hoc Tukey indicated that Surface acting, deep acting and emotional suppression is significantly higher in employees from healthcare sector as compared to other sectors. EL as a whole is higher in employees from the healthcare sector.

The next area that was explored was relationship between different outcome variables.

### 4.11 Relationship between OCB and CWB

OCBs benefit the organization whereas the CWBs harm the organization. Does it mean that they are two sides of the same coin? Does an employee who performs an OCB like helping a colleague to solve a problem, will never indulge in a CWB like saying negative things about the organization? A meta-analysis has found modest correlation between OCB and CWB (Dalal, 2005). But, this study finds that sportsmanship and CWB I are weakly inversely correlated ( $r = -.10$ ,  $p = .023$ ); sportsmanship and CWB are weakly related ( $r = -.09$ ,  $p = .032$ ). Thus H18 that there is no significant relationship between OCB and CWB rejected but the relationship is weak and that too only with sportsmanship component. This implies

that employees which are true sports are least likely to indulge in counterproductive workplace behaviors.

### **4.12 Relationship between OCB and WE**

OCB and WE are desirable workplace behaviors and emotions respectively. Each supports the organizational culture and context and should benefit in the effective performance of the organization. The two may be drawing from the same personal resource bank of the employees and a study shows WE can play a moderating role between PsyCap and OCB (Gupta, Mussarat, & Reddy, 2017) but the relationship has to still be tested empirically and conceptually. In this study we find that there is a weak significant correlation between OCB and WE ( $r = .10$ ,  $p = .026$ ). Thus the hypothesis H19 stating that there is no significant relationship between OCB and WE is rejected. This suggests that personal resources like PsyCap do have a role to play in both.

### **4.13 Relationship between OCB and EL**

OCB is an extra role behavior. Those employees who are satisfied with their jobs, and not experiencing emotional labor, would be able to perform OCBs. This helps us visualize that there would be negative relationship between the two. The mediator can be stress experienced by the employee too. If an employee experiences high emotional labor in a job role, his/her personal resources would be engaged in managing EL rather than helping others or working for the benefit of the organization. The present study shows that negative relation exists between OCB and EL (See *Table 4-2*) but reaches significance only between sportsmanship and surface acting ( $r = .12$ ,  $p = .008$ ) and civic virtue and emotional suppression ( $r = -.11$ ,  $p = .016$ ). This implies that employees who are sporty, in the interest of the organization are likely perform surface acting. This also implies that those who are suppressing their true emotions are not likely to perform civic virtues like staying back in the interest of the organization. Thus hypothesis H20 that there is no significant relationship

between OCB and EL is partially rejected. More research is required to conclude regarding this.

### **4.14 Relationship between CWB and EL**

One of the antecedents of CWB is job stress (Salami, 2010) and EL can be one of the causes for job stress. Thus EL leading to job stress which in turn can lead to CWB can be hypothesized and tested. The present study supports this empirically. Modest correlations are present between surface acting and CWB ( $r = .22, p < .001$ ) CWB I ( $r = .19, p < .001$ ) and CWB O ( $r = .21, p < .001$ ). This suggests that employees who are doing surface acting are more likely to engage in CWB, CWB I and CWB O. Weak negative correlations are also present between emotional suppression and CWB ( $r = -.09, p = .036$ ) and CWB I ( $r = -.13, p = .004$ ). This implies that those employees who suppress their emotions are likely to perform CWB against their colleagues, superiors. Thus we reject the hypothesis H21 that there is no significant relationship between CWB and EL.

### **4.15 Relationship between CWB and WE**

When an employee is immersed in his/her work deeply, he/she derives great satisfaction from the work itself. For some time, the outside reality ceases to exist. This high energy and emotional state probably will not allow for petty behaviours against co-workers like indulging in malicious gossip. The present study supports this logic. WE has significant negative correlations with CWB ( $r = -.19, p < .001$ ), CWB I ( $r = -.22, p < .001$ ) and CWB O ( $r = -.21, p < .001$ ). Vigor has significant negative correlations with CWB I ( $r = -.22, p < .001$ ), CWB I ( $r = -.19, p < .001$ ) and CWB O ( $r = -.19, p < .001$ ). Dedication has significant negative correlations with CWB ( $r = -.20, p < .001$ ), CWB I ( $r = -.20, p < .001$ ) and CWB O ( $r = -.20, p < .001$ ). Absorption has significant negative correlations with CWB ( $r = -.16, p < .001$ ), CWB I ( $r = -.19, p < .001$ ) and CWB O ( $r = -.14, p < .001$ ). Hence we reject the hypothesis H22 that there is no significant relationship between CWB and WE

### **4.16 Relationship between WE and EL**

Today delivering the ‘service with a smile’ and being ‘engaged with your work’ have become buzzwords. In fact, it has led to burgeoning of popular literature on emotional intelligence (Cooper & Sawaf, 1997; Goleman, 2004) and being present. But this has led to commoditization of emotions too leading to EL for employees performing the service. Thus, the study finds there is an inverse relationship between surface acting and WE, though the relationship fails to reach significance. Curiously in case of deep acting, emotional consonance and emotional suppression there is a positive correlation with WE ( $r = .17$ ,  $p < .001$ ), ( $r = .22$ ,  $p < .001$ ) and ( $r = .15$ ,  $p = .001$ ) respectively. Thus one can say that in depth immersion can sometimes lead to deep acting, emotional consonance and emotional suppression too. In case of extreme cases of WE, one can be pushed towards workaholism if it suppresses authentic emotions, though the researchers who have worked on WE earlier, feel that employees who have high WE also have other interests. But in Indian context, it may not be true and here staying back after office hours is considered as a sign of dedication, a WE component. Thus we reject the hypothesis H23 that there is no significant relationship between WE and EL but it requires more research from Indian workplace and culture perspective.

### **4.17 Observations of the researcher**

The study provided rich insights to the researcher during Phase II (p.77) of training. During the data collection between the survey and the training phase, there was a location change in the organization. There was initial talk about whether the organization was going to shift to a distant location. The management had assured the employees that the change was not mandatory for all the group companies and it would not affect this joint venture. The researcher had completed the data collection of phase I (p. 77). Afterwards, the list of the identified employees was sent to the HR department. During follow up an employee in HR

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commented that what kind of a list, did the researcher prepare, for all those who were on the list were quitting the organization. Upon further probing, it was found that the unanticipated location change had happened between phase I and phase II. Those employees who had been invited for the training were employees below the median PsyCap score of that organization. They can be called low PsyCap employees. Attrition rates in this “list” was higher. There were employees with long tenures like 15-17 years who left ostensibly due to location change. Thus, an important correlate came to the notice of the researcher i.e. intention to leave or turnover intention. Those who were low in PsyCap had higher turnover intention. Support for this conclusion is found in nursing literature, where PsyCap has been viewed as a resource to fight burnout, cynicism thereby reducing the turnover intention (Wang, Ying, Jialiang, & Wang, 2012).

Another interesting anecdotal evidence for significance of PsyCap came from the researcher’s interaction with employees during the training. One of the organizations was facing the challenge of reduction in the number of projects that they were handling. During peaks and valleys experience, many employees described themselves moving towards the valley or being on a plateau because, the anticipation with which they had joined this organization was dwindling. Projects were scarce and being a high cost resource was a liability rather than a strength. This put them ‘on the bench’. This brought in self-doubt and reduced self-efficacy.

Another interesting case was the case of a plant – in–charge. The person was heading a particular plant for some years and had risen from the ranks. Because of his performance, he was transferred and given responsibility for a relatively modern plant with new technology. In spite of being an experienced person, this individual admitted to having a lot of self doubts which were captured during phase I testing and after the training and action plans the person admitted to being more confident of delivering the results in the new plant.

