# Influence of Parenting Styles on Emotional Regulation Skills among High School Students

Shikha Joshi<sup>1</sup>; Dr Neetu Sharma<sup>2</sup>; Dr Manisha Tiwari<sup>3</sup>

<sup>1</sup>Research Scholar, Chhatrapati Shivaji Maharaj, Mumbai, (Navel) India

<sup>2</sup>Head of Department, Department of Applied Social Science, Chhatrapati Shivaji Maharaj University Panvel, Navi Mumbai

<sup>3</sup>Head, Department of Psychology, JECRC University, Jaipur

Corresponding Author Email: <a href="mailto:shikhajoshi9692@gmail.com">shikhajoshi9692@gmail.com</a>

Abstract— The major focus of this research was to analyse the link between various parenting styles as well as emotional regulation skills of high students and to find out which style can best predict effective emotional regulation. The study used a correlational research design based on a purposive sample of 90 students aged 14-18. The required data were collected using two scales namely the Inventory of Parenting Style and Scale of Emotional Maturity. The conducted analyses were limited to correlation and MANOVA tests. Results showed a statistically significant positive correlation between parenting style and emotional maturity (p < 0.05). The findings of MANOVA (Pillai's Trace = 0.116, F = 3.17, p = 0.028) suggested that the authoritative parenting style had the most significant influence on emotional regulation. The research endorses the idea that parental authority, which features love, is considered and exercised in a well-balanced manner among other qualities, and is what really enhances high school students' ability to regulate their emotions, become resilient, and mature, especially among Indian students.

**Keywords**: Emotional maturity, high school students, parenting style, emotional regulation, authoritative parenting style.

#### I. INTRODUCTION

#### I.I. BACKGROUND

The high school students are characterised as adolescents, because of their age group of 10 to 18. Adolescence is considered a phase from the age of 10 to 19, mainly the transition phase between the childhood phase and adulthood and du (WHO, 2023). During this phase, an individual often had to undergo major changes that include emotional, biological and social changes. Due to the biological changes, an individual has to face emotional turmoil; therefore, emotional regulation becomes essential for adolescents. Emotional regulation is the ability that acts to modulate the emotions of a person (APA, 2018). By monitoring, evaluating and modifying emotional responses, an adolescent can successfully cope with their external environment. Morris et al. (2007) mentioned that parents and family dynamics are the key behind an individual's emotional development. Based on the interaction pattern, the emotional development of the adolescent often changes. Baumrind (1991) mentioned four different types of parenting styles (PS), namely authoritative, permissive, neglectful and authoritarian. Each of the parenting styles can be characterised based on its nature of control and warmth to the children.

#### I.II. FOCUS OF THE STUDY

Studies of Kaur and Singh (2025); Li et al. (2025); Spera (2005) have found that authoritative PS has a significant influence on the emotional regulation and resilience that can help adolescents in enhancing emotional maturity. On the other hand, Zheng (2025); Sikandar et al. (2025) mentioned that permissive and neglectful parenting styles often lead to poor emotional regulation and control. Despite the author's comprehensive focus on understanding the influence of different parenting styles on the emotional regulation of adolescents, they did not specifically focus on Indian students. This emerges as a significant gap in the overall research area. Focusing on this point, this research tries to uncover the relationship between emotional regulation and high school students in India.

#### I.III. OBJECTIVES OF THE STUDY

- 1. To examine the relationship between different parenting styles and emotional regulation skills among high school students.
- 2. To determine which parenting style best predicts effective emotional regulation.

### I.IV. HYPOTHESES OF THE STUDY

H1: There will be a significant relationship between parenting styles and emotional regulation skills.

**H2:** Adolescents with authoritative parents will score higher on emotional regulation compared to those with authoritarian, permissive, or neglectful parents.

#### II. ARRANGEMENTS AND EQUATIONS

#### II.I. ARGUMENTS ABOUT PARENTING STYLE AND EMOTIONAL REGULATIONS

According to Awiszus et al. (2022), PS has a significant influence on the development of a child. Through a comprehensive literature review, the authors indicate that the authoritative PS has a significant influence on various factors, including academic performance, social competencies, resilience, and emotional regulation. Due to the responsiveness and warmth of the parents, the children are able to enhance their social competencies and emotional control of the children. The dimensions of warmth and control are the two key factors that can act as a mediating factor in the strategic way to raise children, where emotional regulation can be improved. On the contrary, Baumrind (1967, 1991) mentioned that parenting styles are important in various aspects, especially in the development of a child. Parenting style, like authoritative, is based on a balance between responsiveness and warmth helps the parents in emotionally controlling and supporting their children during the adolescent phase. Due to this support, emotional regulation and maturity often develop among the children.

On the other hand, Steinberg (2001) mentioned that parents are the most important part of a child's life. During the early development, the interaction, values and beliefs of the parents shape the identity of the child. During adolescence, the child had to go through various transitions, where the warmth of the parents and their support helped the child in their overall development. Biological changes, including hormonal changes, often impact the emotional stability of adolescents; thus, support and special attention from the parents are required. Authoritative PS is one of the most significant parenting styles that supports adolescents during their emotional changes (Suldo & Huebner, 2004). Parent-child conflict, family environment and structure are the key things that shape the life satisfaction and emotional regulation of the children. During the adolescent phase, psychological changes make the children emotionally vulnerable; therefore, supportive parents help the children in enhancing their overall development. Parenting styles like authoritarian can negatively impact the developmental outcome of adolescents due to their excessive control over emotional regulation.

On the other hand, Morris et al. (2007) mentioned that family context, including the home environment and family dynamics, is correlated with the emotional regulation of an individual. Observational learning, social referencing, and modelling are the three most crucial ways through which children learn and imitate emotional regulations. PS is a mediating factor that is associated with the family dynamics, and due to the changes in the environment and relationship, the emotional regulation often differs among children. For instance, the supportive parent-adolescent relationship helps in developing stronger emotional regulation (Ratliff et al. 2023). Due to the support from parents, adolescents' social behaviour and depressive symptoms can be lowered. An authoritative PS is an important PS in enhancing the emotional regulation of adolescents due to its nature of supportiveness and warmth. This would significantly help the adolescents in developing the skills to control and manage their emotions, leading to improved emotional regulation.

Eisenberg et al. (2010) mentioned that emotion and self-regularity an important aspect for an individual to showcase a positive development. Effortful self-regulation often helps in enhancing the overall growth of children. Since early childhood, a person has started to develop emotional and self-regulation, and in the phase of adulthood, it appears to grow slowly. During the stage of early adolescence, an individual has to face several challenges that might affect their emotional and self-regulation. In early adolescence, a person experiences an increase in normative function in their behavioural aspects, resulting in lower prosocial behaviour (Favini et al. 2023). During this situation, support from

parents and family dynamics helps adolescents in gaining support to regulate their emotional factors. Parental interaction and bonding are the important mediating factors in the development of emotional regulation in high school students. Family dysfunction or dysregulation often acts as a negative factor that impacts the development of emotional regulation in students. On the other hand, Gross and John (2003) mentioned that relationship, well-being and affection are the key factors that impact the overall emotional regulation of an individual. Reward or reappraisal positively correlated with the emotional regulation of individuals, where interpersonal functioning mediates the impact. Therefore, it can be stated that due to the family dynamic and parenting style, the development of emotional regulation can differ among adolescents.

#### II.II. STATEMENT OF THE PROBLEM

Studies of Awiszus et al. (2022); Baumrind (1967, 1991); Steinberg (2001); Suldo and Huebner (2004) mentioned the relation between the parenting interaction and emotional regulation. By providing significant information about the prosocial behaviour and parents' interaction and support, these studies help in know that different parenting styles have different kinds of impact on the development of emotional regulation among adolescents. On the other hand, Morris et al. (2007); Ratliff et al. (2023); Eisenberg et al. (2010); Gross and John (2003) mentioned the significance of family dynamics and family environment in developing emotional regulation of the students. Despite providing enough supportive information about PS supporting the emotional regulation development of adolescents, the authors did not cover the Indian perspective. This creates a significant gap; this research tries to cover this through a comprehensive research on high school students aged from 14 to 18 from India. Therefore, it can be stated that the problem statement of this research is focused on understanding the way different parenting styles, like authoritative, neglectful, permissive and authoritarian, influence the emotional regulatory skills among the high school students of India.

#### III. METHODOLOGY

#### Sample

This research tries to understand the influence of PS on Indian high school students. Therefore, the high school students aged from 14 to 18 are surveyed with a questionnaire to understand the emotional regulations. Through purposive sampling, all the participants were included in the survey. The participants include both male and female participants. In addition, a total of 90 sample sizes were selected for conducting the survey. These participants are invited from a high school located in Mumbai, India. Based on the collected information, further analysis has been performed.

#### Research design

This research incorporated a correlational research design, where the correlation between two variables, namely the PS and emotional regulation of the high school students. Initially, a survey research strategy was followed in the research to collect responses from 90 participants. The main reason for using the correlational research design is to understand the relation between the variables, and this survey strategy helps in collecting responses in an easier way and with less time.

#### Variables

This study has two variables, including one dependent variable and one independent variable. The independent variable is parenting style, while the dependent variable is emotional regulation of the students. The independent variable has four sub-variables based on the four different parenting styles. Authoritarian, neglectful, authoritative and permissive are the four parenting styles that fall under the independent variable of parenting style. Based on the variables, further analysis was performed.

#### Research tools

The research was conducted using a structured questionnaire based on two inventories. First, for measuring the independent variable of parenting style, the inventory scale of PS was used. This scale was developed by Robinson et al. (1995), and this questionnaire consisted of a total of 62 items to measure the PS followed by a parent. In addition, another inventory scale is used in this research for measuring the dependent variable of emotional regulation. The emotional maturity scale (EMS) developed by Singh and Bhargava (1991) was used in the survey, and this scale consisted of 48 items to understand the emotional regulation of the high school students.

#### Procedure

The collected responses of 90 participants were analysed using the software SPSS. First, Correlation analysis was performed to understand correlation between the variables of PS and emotional maturity of the collected responses. Therefore, MANOVA was performed to evaluate the significance of the response. Using MANOVA helped in testing the alternative hypothesis that mentioned the significant relationship between the PS and emotional regulation of the high school students.

#### IV. TABLES AND FIGURES

#### **IV.I. RESULTS**

Based on the variables, the two tests, namely correlation and MANOVA and scatter plot, have been performed to understand the correlation and significance level of the variables.

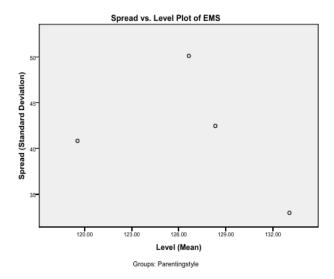
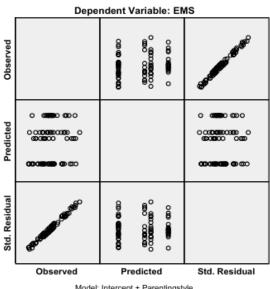


Figure 1: Spread vs level plot for EMS across parenting style

Figure 1 indicates the scatter plot for the two variables regarding their mean, standard deviation of different parenting styles with emotional maturity. The figure shows that the authoritative PS (mean 126) has a more spread and lower mean. While the other three parenting styles, like authoritarian (mean 133), permissive (mean 128) and neglectful (mean 119) have moderate spread and increase in mean.



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Model: Intercept + Parentingstyle

#### Figure 2: Observed, predicted, and standard residual for EMS

Figure 2 shows that the PS is spread across the EMS; however, the spreading of PS has a significant influence on the EMS because of the random scatter of the responses.

**Table 1: Correlation Analysis** 

#### Correlations

		Parentingstyle	EMS
Parentingstyle	Pearson Correlation	1	100
	Sig. (2-tailed)		.348
	Sum of Squares and Cross-products	112.889	-409.889
	Covariance	1.268	-4.605
	N	90	90
EMS	Pearson Correlation	100	1
	Sig. (2-tailed)	.348	
	Sum of Squares and Cross-products	-409.889	148439.789
	Covariance	-4.605	1667.863
	N	90	90

(Source: Self)

Table 2: Results from Pearson and Kendall Tau Correlation

#### Correlations

			Parentingstyle	EMS
Kendall's tau_b	Parentingstyle	Correlation Coefficient	1.000	057
		Sig. (2-tailed)		.476
		N	90	90
	EMS	Correlation Coefficient	057	1.000
		Sig. (2-tailed)	.476	
		N	90	90
Spearman's rho	Parentingstyle	Correlation Coefficient	1.000	077
		Sig. (2-tailed)		.471
		N	90	90
	EMS	Correlation Coefficient	077	1.000
		Sig. (2-tailed)	.471	
		N	90	90

(Source: Self)

Tables 1 and 2 are derived from the Correlation analysis of the variables, namely PS and emotional maturity of the high school students. Table 1 indicates that the two variables possess significance values of 0.348, where a 2-tailed analysis is performed. At p <0.05, the level of significance is 0.0196 (df is 89). The test result for the correlation is greater than 0.196. Therefore, it can be stated that at p< 0.05, the correlation between PSI and EMS is significant. Furthermore, the Spearman rho and the Kendall tau correlation analysis at p < 0.05 are 0.195 and ±1.96. The result of Table 2 shows that both analyses are significant as their value are derived as 0.471 and 0.476, which indicates whether the significant value or within the range. Based on this analysis, it can be stated that there is a positive correlation between the variables of PS and the emotional maturity scale. Hence, the first alternative hypothesis (H1) is accepted in this study.

**Table 3: Summary of MANOVA** 

Statistic/Variable	EMS
Sample Size (N)	90 total

Mean (Overall)	125.41
Box's Test of Equality of Covariance	M=21.391, p=0.345
Bartlett's Test of Sphericity	Chi-square=123.82, p<.001
Multivariate Test (Parenting Style)	Pillai's Trace=0.116, F=3.17, p=0.028
Partial Eta Squared (Effect size)	0.100
Levene's Test (Homogeneity of variances)	p=0.208
Between-subject effects (Parenting Style)	F=1.247, p=0.298
Observed Power	0.323 (EMS)

(Source: Self)

Table 3 is the summary table from the MANOVA test, which indicates the result of tests like Box's test, partial Eta test, and Levene's Test. The result shows that the Box's Test is M=21.391 at p < 0.345. This particular result indicates that the relationship between the two variables is not significant, and the assumption about the equal covariates is met across all the groups of parenting styles. On the other hand, the test result of Bartlett's for Chi-square is 123.82 at a p < 0.001 level of significance. This supports that the variables of EMS and PSI are correlated for MANOVA. The result of the Multivariate Test regarding the PS shows that Pillai's Trace is 0.116, where F is 3.17, at the level p = 0.028. In addition, the overall rest result shows the PS 0.00 (authoritative) has the significance level of 0.583 at t critical values 0.551. Where the other parenting styles, such as the permissive (2), authoritarian (1) and neglectful (3) have a lower significance than the critical value, only the PS (0) has greater values, indicating a significant impact on the EMS. In addition, Levene's Test result comes as p=0.208 and Between-subject effects as F is 1.247 at p=0.298. This result shows that the homogeneity of the PS variances does not violate for EMS. Lastly, Observed Power resulted in 0.323, indicating that this test might not detect the small differences in the EMS. Based on the entire test, it can be stated that the second hypothesis is proven through the MANOVA test result. The test result of the Multivariate Test is the most significant one in proving the second alternative hypothesis to be true, namely, the authoritative PS is most significant in enhancing the emotional maturity scale of the high school students.

#### IV.II. DISCUSSION

#### The relationship between different parenting styles and emotional regulation skills among high school students

This research provides strong evidence that the style of parenting has a significant influence on the emotional regulation abilities of high school students. Pearson, Kendall Tau, and Spearman rho correlation analyses all pointed to significant associations (p < 0.05), which means that changes in parenting styles have a significant impact on the emotional maturity of students. This aligns with the findings of Awiszus et al. (2022); Steinberg (2001), who found that emotionally supportive and warm parental (known as authoritative parenting style) relations lead to better emotional control and the development of resilience in the adolescent population. In addition, the findings of the study also align with the statements of Morris et al. (2007), as the study shows that the family environment and parenting behaviours become the intermediaries in emotional growth. Adolescents in the study who were brought up in a warm family environment showed advanced emotional maturity, whereas those growing up under the rule of an authoritarian or neglectful PS had poor regulation skills. Results from MANOVA tests also point to the existence of a multivariate impact of PS on emotional maturity, implying that emotional regulation is something that evolves in the interactional context of the family. Hence, all the data here are consistent with the theory that parental warmth, responsiveness, and control are the factors that most determine the level of adolescents' emotional management skills, their stress-coping abilities, and the exhibition of prosocial behaviour during a period that is critical for psychological and social development. Therefore, it can be stated that the first objective has been achieved through the overall analysis.

#### Parenting style best predicts effective emotional regulation

Among the four parenting styles, namely, authoritative, authoritarian, permissive, and neglectful, the data pointed out most distinctly that the authoritative PS is the best predictor of emotional regulation in high school students. The test result of MANOVA, where Pillai's Trace is 0.116 at F is 3.17, at the significance level p is 0.028, shows a significant multivariate effect, which supports the fact that the authoritative PS has a significant impact on the emotional maturity scale (EMS). This outcome is in line with the previous literature of Baumrind (1967, 1991); Steinberg (2001); Suldo & Huebner (2004), who considered authoritative parenting the most stable and most suitable because it combined the factors of love, sensitivity, and provision of reasonable control. The emotional support and freedom provided by authoritative parents help high school students to develop in themselves emotional regulation skills and the ability to control their feelings. On the other hand, the results showed that the worst emotional outcomes were those of children under the care of authoritarian and neglectful parenting styles, which, among other things, exerted rigid control and were emotionally detached. The statistical proof from correlation and MANOVA also convincingly demonstrates that authoritative parenting not only leads to emotional maturity but also stability, resilience, and social competence. Hence, the authoritative style of parenting can be considered the most influential factor in determining the emotional regulation capacity of adolescents, thus leading to the achievement of their psychological and emotional health. Therefore, it can be stated that the in-site study has successfully achieved its second research objective.

#### V. CONCLUSION

The research finds that the way parents raise their children influences the emotional regulation of high school students in India to a great extent. Out of the four different parenting styles, the authoritative style turned out to be the most potent in developing emotional maturity, resilience, and social competence. The statistical analyses done on the data collected from the study, such as correlation and MANOVA, found a positive and significant relationship between PS and emotional regulation. Proving that H1 and H2 are significant for this research. This means that the adolescents whose parents were authoritative had better emotional control than those adolescents whose parents were authoritarian or neglectful. Therefore, parental warmth, responsiveness, and balanced control are the necessary ingredients for adolescents' emotional stability and psychological well-being to be nurtured during the vital developmental phase.

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## Appendix

## **Result of MANOVA**

## **General Linear Model**

[DataSet0]

### **Between-Subjects Factors**

		N
Parentingstyle	.00	14
	1.00	20
	2.00	18
	3.00	38

### **Descriptive Statistics**

	Parentingstyle	Mean	Std. Deviation	N
EMS	.00	126.6429	50.16068	14
	1.00	133.0500	32.96805	20
	2.00	128.3333	42.48737	18
	3.00	119.5526	40.85088	38
	Total	125.4111	40.83948	90
SMSTotal	.00	271.6429	28.47025	14
	1.00	269.7500	29.05870	20
	2.00	266.9444	19.15716	18
	3.00	277.5526	22.90721	38
	Total	272.7778	24.61286	90
ARS	.00	61.3571	11.05655	14
	1.00	68.2500	10.48746	20
	2.00	64.6111	16.27752	18
	3.00	62.9737	9.50814	38
	Total	64.2222	11.62599	90

Box's Test of Equality of Covariance Matrices<sup>a</sup>

Box's M	21.391
F	1.099
df1	18
df2	12016.753
Sig.	.345

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Parentingstyle

### Bartlett's Test of Sphericity<sup>a</sup>

Likelihood Ratio	.000
Approx. Chi-Square	123.825
df	5
Sig.	.000

Tests the null hypothesis that the residual covariance matrix is proportional to an identity matrix.

a. Design: Intercept + Parentingstyle

#### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.992	3437.422 <sup>b</sup>	3.000	84.000	.000
	Wilks' Lambda	.008	3437.422 <sup>b</sup>	3.000	84.000	.000
	Hotelling's Trace	122.765	3437.422 <sup>b</sup>	3.000	84.000	.000
	Roy's Largest Root	122.765	3437.422 <sup>b</sup>	3.000	84.000	.000
Parentingstyle	Pillai's Trace	.116	1.157	9.000	258.000	.323
	Wilks' Lambda	.885	1.167	9.000	204.585	.318
	Hotelling's Trace	.128	1.172	9.000	248.000	.313
1	Roy's Largest Root	.111	3.173 <sup>c</sup>	3.000	86.000	.028

#### Multivariate Tests<sup>a</sup>

Effect		Partial Eta Squared	Noncent. Parameter	Observed Power <sup>d</sup>
Intercept	Pillai's Trace	.992	10312.267	1.000
	Wilks' Lambda	.992	10312.267	1.000
	Hotelling's Trace	.992	10312.267	1.000
	Roy's Largest Root	.992	10312.267	1.000
Parentingstyle	Pillai's Trace	.039	10.411	.568
	Wilks' Lambda	.040	8.477	.462
	Hotelling's Trace	.041	10.551	.574
	Roy's Largest Root	.100	9.520	.716

- a. Design: Intercept + Parentingstyle
- b. Exact statistic
- c. The statistic is an upper bound on F that yields a lower bound on the significance level.
- d. Computed using alpha = .05

Levene's Test of Equality of Error Variances<sup>a</sup>

	F	df1 df2		df1 df2		Sig.
EMS	1.548	3	86	.208		
SMSTotal	.942	3	86	.424		
ARS	3.785	3	86	.013		

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Parentingstyle

### **Tests of Between-Subjects Effects**

		Type III Sum			
Source	Dependent Variable	of Squares	df	Mean Square	F
Corrected Model	EMS	2646.230 <sup>a</sup>	3	882.077	.520
	SMSTotal	1680.252 <sup>b</sup>	3	560.084	.922
	ARS	501.340 <sup>c</sup>	3	167.113	1.247
Intercept	EMS	1267271.847	1	1267271.847	747.532
	SMSTotal	5800085.743	1	5800085.743	9549.239
	ARS	325369.996	1	325369.996	2427.246
Parentingstyle	EMS	2646.230	3	882.077	.520
	SMSTotal	1680.252	3	560.084	.922
	ARS	501.340	3	167.113	1.247
Error	EMS	145793.559	86	1695.274	
	SMSTotal	52235.303	86	607.387	
	ARS	11528.216	86	134.049	
Total	EMS	1563955.000	90		
	SMSTotal	6750610.000	90		
	ARS	383234.000	90		
Corrected Total	EMS	148439.789	89		
	SMSTotal	53915.556	89		
	ARS	12029.556	89		

### **Tests of Between-Subjects Effects**

Source	Dependent Variable	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>d</sup>
Corrected Model	EMS	.669	.018	1.561	.152
	SMSTotal	.434	.031	2.766	.245
	ARS	.298	.042	3.740	.323
Intercept	EMS	.000	.897	747.532	1.000
	SMSTotal	.000	.991	9549.239	1.000
	ARS	.000	.966	2427.246	1.000
Parentingstyle	EMS	.669	.018	1.561	.152
	SMSTotal	.434	.031	2.766	.245
	ARS	.298	.042	3.740	.323
Error	EMS				
	SMSTotal				
	ARS				
Total	EMS				
	SMSTotal				
	ARS				
Corrected Total	EMS				
	SMSTotal				
	ARS				

a. R Squared = .018 (Adjusted R Squared = -.016)

b. R Squared = .031 (Adjusted R Squared = -.003)

c. R Squared = .042 (Adjusted R Squared = .008)

d. Computed using alpha = .05

#### **Parameter Estimates**

						95%
Dependent Variable	Parameter	В	Std. Error	t	Sig.	Lower Bound
EMS	Intercept	119.553	6.679	17.899	.000	106.275
	[Parentingstyle=.00]	7.090	12.873	.551	.583	-18.500
	[Parentingstyle=1.00]	13.497	11.374	1.187	.239	-9.114
	[Parentingstyle=2.00]	8.781	11.781	.745	.458	-14.639
	[Parentingstyle=3.00]	0 <sup>a</sup>				
SMSTotal	Intercept	277.553	3.998	69.423	.000	269.605
	[Parentingstyle=.00]	-5.910	7.705	767	.445	-21.227
	[Parentingstyle=1.00]	-7.803	6.808	-1.146	.255	-21.337
	[Parentingstyle=2.00]	-10.608	7.052	-1.504	.136	-24.627
	[Parentingstyle=3.00]	0 <sup>a</sup>				
ARS	Intercept	62.974	1.878	33.529	.000	59.240
	[Parentingstyle=.00]	-1.617	3.620	447	.656	-8.812
	[Parentingstyle=1.00]	5.276	3.198	1.650	.103	-1.082
	[Parentingstyle=2.00]	1.637	3.313	.494	.622	-4.948
	[Parentingstyle=3.00]	0 <sup>a</sup>				

#### **Parameter Estimates**

		95%	Partial Eta	Noncent.
Dependent Variable	Parameter	Upper Bound	Squared	Parameter
EMS	Intercept	132.831	.788	17.899
	[Parentingstyle=.00]	32.680	.004	.551
	[Parentingstyle=1.00]	36.109	.016	1.187
	[Parentingstyle=2.00]	32.201	.006	.745
	[Parentingstyle=3.00]			
SMSTotal	Intercept	285.500	.982	69.423
	[Parentingstyle=.00]	9.407	.007	.767
	[Parentingstyle=1.00]	5.732	.015	1.146
	[Parentingstyle=2.00]	3.410	.026	1.504
	[Parentingstyle=3.00]			
ARS	Intercept	66.707	.929	33.529
	[Parentingstyle=.00]	5.579	.002	.447
	[Parentingstyle=1.00]	11.635	.031	1.650
	[Parentingstyle=2.00]	8.223	.003	.494
	[Parentingstyle=3.00]			

#### **Parameter Estimates**

Dependent Variable	Parameter	Observed Power <sup>b</sup>
EMS	Intercept	1.000
	[Parentingstyle=.00]	.085
	[Parentingstyle=1.00]	.217
	[Parentingstyle=2.00]	.114
	[Parentingstyle=3.00]	
SMSTotal	Intercept	1.000
	[Parentingstyle=.00]	.118
	[Parentingstyle=1.00]	.205
	[Parentingstyle=2.00]	.319
	[Parentingstyle=3.00]	
ARS	Intercept	1.000
	[Parentingstyle=.00]	.073
	[Parentingstyle=1.00]	.371
	[Parentingstyle=2.00]	.078
	[Parentingstyle=3.00]	

- a. This parameter is set to zero because it is redundant.
- b. Computed using alpha = .05

#### General Estimable Functiona

	Contrast				
Parameter	L1	L2	L3	L4	
Intercept	1	0	0	0	
[Parentingstyle=.00]	0	1	0	0	
[Parentingstyle=1.00]	0	0	1	0	
[Parentingstyle=2.00]	0	0	0	1	
[Parentingstyle=3.00]	1	-1	-1	-1	

a. Design: Intercept + Parentingstyle

## Transformation Coefficients (M Matrix)

	Transformed Variable				
Dependent Variable	EMS	SMSTotal	ARS		
EMS	1	0	0		
SMSTotal	0	1	0		
ARS	0	0	1		

Between-Subjects SSCP Matrix

			EMS	SMSTotal	ARS
Hypothesis	Intercept	EMS	1267271.847	2711140.972	642131.012
1		SMSTotal	2711140.972	5800085.743	1373744.473
1		ARS	642131.012	1373744.473	325369.996
1	Parentingstyle	EMS	2646.230	-1851.970	864.356
1		SMSTotal	-1851.970	1680.252	-465.755
		ARS	864.356	-465.755	501.340
Error		EMS	145793.559	14773.192	-4376.578
1		SMSTotal	14773.192	52235.303	5571.199
		ARS	-4376.578	5571.199	11528.216

Based on Type III Sum of Squares

#### **Residual SSCP Matrix**

		EMS	SMSTotal	ARS
Sum-of-Squares and	EMS	145793.559	14773.192	-4376.578
Cross-Products	SMSTotal	14773.192	52235.303	5571.199
	ARS	-4376.578	5571.199	11528.216
Covariance	EMS	1695.274	171.781	-50.890
	SMSTotal	171.781	607.387	64.781
	ARS	-50.890	64.781	134.049
Correlation	EMS	1.000	.169	107
	SMSTotal	.169	1.000	.227
	ARS	107	.227	1.000

Based on Type III Sum of Squares

## Lack of Fit

#### **Multivariate Tests**

Dependent Variables		Value	F	Hypothesis df	Error df	Sig.
EMS, SMSTotal, ARS	Pillai's Trace	.000		.000	.000	
	Wilks' Lambda	1.000		.000	85.000	
	Hotelling's Trace	.000		.000	2.000	
	Roy's Largest Root	.000	.000 <sup>a</sup>	3.000	83.000	1.000
EMS, SMSTotal	Pillai's Trace	.000		.000	.000	
	Wilks' Lambda	1.000		.000	85.500	
	Hotelling's Trace	.000		.000	2.000	
	Roy's Largest Root	.000	.000 <sup>a</sup>	2.000	84.000	1.000
EMS, ARS	Pillai's Trace	.000		.000	.000	
	Wilks' Lambda	1.000		.000	85.500	
	Hotelling's Trace	.000		.000	2.000	
	Roy's Largest Root	.000	.000 <sup>a</sup>	2.000	84.000	1.000
SMSTotal, ARS	Pillai's Trace	.000		.000	.000	
	Wilks' Lambda	1.000		.000	85.500	
	Hotelling's Trace	.000		.000	2.000	
	Roy's Largest Root	.000	.000 <sup>a</sup>	2.000	84.000	1.000
EMS	Pillai's Trace	.000		.000	.000	
	Wilks' Lambda	1.000		.000	86.000	
	Hotelling's Trace	.000		.000	2.000	
	Roy's Largest Root	.000	.000 <sup>a</sup>	1.000	85.000	1.000
SMSTotal	Pillai's Trace	.000		.000	.000	
	Wilks' Lambda	1.000		.000	86.000	
	Hotelling's Trace	.000		.000	2.000	
	Roy's Largest Root	.000	.000 <sup>a</sup>	1.000	85.000	1.000
ARS	Pillai's Trace	.000		.000	.000	
	Wilks' Lambda	1.000		.000	86.000	
	Hotelling's Trace	.000		.000	2.000	
	Roy's Largest Root	.000	.000 <sup>a</sup>	1.000	85.000	1.000

#### **Multivariate Tests**

		Partial Eta Squared	Noncent. Parameter	Observed Power <sup>b</sup>
Dependent Variables EMS, SMSTotal, ARS	Pillai's Trace	Squareu	Faranietei	Fower
EMS, SMSTOIAI, ARS	Wilks' Lambda			
	Hotelling's Trace			
FMC CMCT-t-1	Roy's Largest Root Pillai's Trace	.000	.000	.050
EMS, SMSTotal				
	Wilks' Lambda			
	Hotelling's Trace			·
	Roy's Largest Root	.000	.000	.050
EMS, ARS	Pillai's Trace			
	Wilks' Lambda			
	Hotelling's Trace			
	Roy's Largest Root	.000	.000	.050
SMSTotal, ARS	Pillai's Trace			
	Wilks' Lambda	-		
	Hotelling's Trace			
	Roy's Largest Root	.000	.000	.050
EMS	Pillai's Trace			
	Wilks' Lambda			
	Hotelling's Trace			
	Roy's Largest Root	.000	.000	.050
SMSTotal	Pillai's Trace			
	Wilks' Lambda			
	Hotelling's Trace			
	Roy's Largest Root	.000	.000	.050
ARS	Pillai's Trace			
	Wilks' Lambda			
	Hotelling's Trace			
	Roy's Largest Root	.000	.000	.050

a. Exact statistic

b. Computed using alpha = .05

#### **Univariate Tests**

Dependent Variable	Source	Sum of Squares	df	Mean Square	F	Sig.
EMS	Lack of Fit	.000	0			
	Pure Error	145793.559	86	1695.274		
SMSTotal	Lack of Fit	.000	0			
	Pure Error	52235.303	86	607.387		
ARS	Lack of Fit	.000	0			
	Pure Error	11528.216	86	134.049		

#### **Univariate Tests**

Dependent Variable	Source	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>a</sup>
EMS	Lack of Fit	.000	.000	
	Pure Error			
SMSTotal	Lack of Fit	.000	.000	
	Pure Error			
ARS	Lack of Fit	.000	.000	
	Pure Error			

a. Computed using alpha = .05

#### **SSCP Matrix**

		EMS	SMSTotal	ARS
Lack of Fit	EMS	.000	.000	.000
	SMSTotal	.000	.000	.000
	ARS	.000	.000	.000
Pure Error	EMS	145793.559	14773.192	-4376.578
	SMSTotal	14773.192	52235.303	5571.199
	ARS	-4376.578	5571.199	11528.216