

# **A CRITICAL ANALYSIS OF THE EFFECTS OF PARENTAL PSYCHOLOGICAL CONTROL ON EXTERNALIZED BEHAVIORS OF HIGH SCHOOL STUDENTS**

Yin Nyein Aye<sup>1</sup>, Khin Nyunt Nyunt Saw<sup>2</sup>

## **Abstract**

The purpose of this study was to explore the effects of parental psychological control on externalized behaviors of high school students. A total of 932 high school students (460 males and 472 females) from 17 selected schools in Sagaing Region, Mandalay Region and Kachin State. The required sample was selected by using random sampling technique. Quantitative research approach and questionnaire survey method were used. As the research instruments, Psychological Control Scale-Youth Self-Report (PCS-YSR) by Barber (1996) and Psychological Control-Disrespect Scale (PCDS) by Barber et al. (2012) were used to measure parental psychological control and Child Behavior Checklist (Child-Report Form, Achenbach, 2001, revised form) was used to measure externalized behaviors of high school students. Descriptive statistics, independent sample *t*-test, one-way ANOVA, post hoc test, correlation and stepwise multiple regression analysis were used in this study. The overall results showed that most of high school students fell into moderate parental psychological control level group. The results indicated that female students have high level of parental psychological control than that of male students. ANOVA result indicated that there were statistically significant differences among parental psychological control levels on externalized behaviors of high school students.

**Keywords:** parental psychological control, externalized behaviors, high school students

## **Introduction**

Adolescence is characterized by many changes that are related to adolescents' perceptions of themselves and their family life (White & Renk, 2012). An overview of adolescence reveals that during this stage of development young people are "in an active, purposeful 'flight' away from attachment relationships with parents". If parental control is not diminished it results in increased conflict between adolescents and parents, such as the breaking of rules and antisocial behavior.

Adolescence is a critical period of development. Adolescents are continuously changing mentally, physically, and psychologically (Santrock, 2004). They are learning more about the 'real world' and trying to strive for both independence from parents and inclusion in social groups. Adolescents want to be perceived as adults with capable decision-making skills, but also want to remain members of a large peer group. As children move into adolescence, monitoring becomes an important aspect of parenting.

Additionally, these young people desire support and structure from their parents, though they project an indifferent demeanor and challenge the supportive measures of their parents. Whether parents are involved in and support their adolescents' school life can directly affect their personal and social development as well as their academic success (Jeynes, 2007).

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<sup>1</sup> No.1, Basic Education High School, Myinmu, Myinmu Township, Sagaing Region

<sup>2</sup> Department of Educational Psychology, Yangon University of Education

Researchers have demonstrated that the single most consistent predictor of adolescent emotional and psychological well-being is the quality of the parent-child relationship (Steinberg & Silk, 2002). Furthermore, parental psychological control is a parenting practice that manipulates children and adolescents by inducing guilt and instilling anxiety, sometimes leading to low levels of self-esteem and high levels of internalizing problems in children and adolescents (Grolnick, 2003).

Psychological control was viewed as distinct from behavioral control in that it involved attempts to control the child's psychological world (e.g., feelings, aspirations, and identity choices). Specifically, Barber (1996) defined psychological control as "socialization pressure that is non-responsive to the child's emotional and psychological needs stifles independent expression and autonomy". Psychologically controlling parents would intrude on the psychological and emotional development of the child through internally controlling and emotionally manipulative means such as guilt induction, love withdrawal and invalidating feelings (Barber & Harmon, 2002).

Externalizing behavior patterns were directed towards the social environment and could be characterized as an under-controlled and outer-directed mode of responding. Generally, there are four types of externalizing behavior: aggression, positionality, violating property, and violating status. (Coohey et al., 2013). There are numerous contributors to externalizing behavior including, environmental factors, such as, school, peers, family, and individual traits such as personality characteristics.

Moreover, externalizing behavior is indeed outward focused behavior that has specific negative outcomes. Externalizing behaviors include a lack of emotional control, aggressiveness, and disrespect for societal norms (Brook et al., 2012). For this study, a broad definition of externalizing behaviors are used, measuring outward focused behaviors that included aggression, opposition, violating property, disruptive behaviors and social problems. Parental psychological control is related to low self-esteem, depression, low levels of empathy and delinquency in adolescents (Helwig et al., 2014).

## **Purpose of the Study**

The purpose of this study was to explore the effects of parental psychological control on externalized behaviors of high school students.

## **Definition of Key Terms**

**Parental Psychological Control:** Parental psychological control as intruding upon, manipulating, and constraining children's and adolescents' psychological worlds and as "a type of interpersonal interaction in which the parent's psychological status and relational position to the child is maintained and defended at the expense and violation of the child's development of self" (Barber, 2002).

**Externalized Behaviors:** Externalized behavior refers to lashing outward at by others by aggression, violence and defiant behavior occurred a very common phenomenon among adolescents (Jianghong, 2004).

## **High School Students:**

## **Review of Related Literature**

Parents who are psychologically controlling have been characterized as controlling their children's attitudes, behaviors, feelings, and thoughts through manipulative means, and using psychological tactics such as conditional approval and shaming (Barber, 1996). More specifically, parental psychological control has been characterized as a form of insensitive parenting which undermines the child's sense of self by inducing guilt, arousing anxiety, provoking shame, and withholding affection and love by making them contingent upon the child's behaviors.

Grolnick (2003) has given a clear example of parental psychological control by depicting three different parental approaches to the same situation. In her example, a child comes home with three Cs on her report card and her parents are upset and concerned. Her parents want their daughter's grades to improve on the next report card. The three different parental approaches are as follows: (a) a positive controlling approach, where the parents use positive reinforcement (monetary reward) as an incentive for the daughter to improve her grades in the future; (b) a psychological controlling approach, where the parents tell their daughter that they are disappointed in her and that she let them down again (i.e., use of guilt induction) and they are cold to her for a few days speaking only to answer questions in order to prove to her how upset they are (i.e., love withdrawal); and (c) an autonomy-supportive approach, where the parents sit down together with their daughter and ask her what she thinks went wrong with her grades this period and then brainstorm with her about what she thinks might help improve her grades in the future (i.e., involving their daughter in the decision-making process).

Grolnick (2003) has explained that the first two approaches are both controlling and have a similar goal – coercing the child into changing her behavior. In both situations, the daughter feels pressure from her parents – in the first case, pressure from the desired reward, and in the second case, pressure from fear of losing her parents' love, as well as their disappointment and anger. Grolnick (2003) has further explained that in the first two approaches, the child will be changing her behavior for external reasons - to either obtain money or to avoid parental hostility. However, in the third case, the daughter does not feel pressure and feels that she is the one who can initiate changes in her own behavior.

Furthermore, psychological control has been found to be negatively related to peer support and positively to social anxiety and aggressive behaviors in peer relations, behaviors which, in turn, negatively affect the quality of their friendships and peer relations. Barber et al. (1994) found that whereas behavioral control was specifically negatively related to externalizing problems, psychological control was positively related to internalizing problems. However, Barber (1996) found that psychological control was positively related to externalizing problems as well.

Family processes have also been related to externalizing behavior. Both how a family is structured and how they interact with one another have been shown in the literature to be related to externalizing behavior. For instance, stepfamilies and single parent families are related to externalizing behavior for both female and male adolescents (Harris-McKoy & Cui, 2013). Family risk is an influential factor in whether or not adolescents will exhibit externalizing behavior. If there is a family risk for externalizing behavior, meaning the parents exhibited

externalizing related behaviors, the child is at a genetic risk to inherit the genetic component to these behaviors making them more likely to exhibit externalizing behavior.

An important part of the environment for children and adolescents are family relationships. Sibling relationships in adolescence are very influential, especially in terms of delinquency. It has been shown that the more an older sibling engages in externalizing behavior, the more a younger sibling engages in similar externalizing behaviors (Buist, 2010). In addition, if the sibling relationship is poor, if the siblings are not close, or if they have a conflictual relationship, than externalizing behavior may be the result. Importantly, if the nature of the older sibling's externalizing behavior changes than the younger sibling's externalizing behaviors mirror these changes, for better or for worse (Buist, 2010).

What goes on in sibling relationships is only part of the influence that family interactions have on externalizing. For instance, Renner (2012) found that children, who are exposed to family violence, meaning that either they or another family member is abused, are more likely to engage in externalizing behaviors. Unexpectedly, children who were exposed to the violence of a sibling engage in more externalizing than children who were abused themselves. Similarly, verbal and physical punishments have been shown to increase externalizing behaviors for adolescents (Evans et al., 2012). Another familial factor, marital conflict, has been shown to be positively related to externalizing behavior across ethnic groups in adolescent boys.

## **Method**

### **Research Design**

Quantitative perspective and questionnaire survey method was used to measure the parental psychological control and externalized behaviors of High School Students.

### **Participants of the Study**

The participants for this study were Grade 10 students attending in the academic year of 2020-2021 chosen from 5 Basic Education High Schools and 3 Basic Education High Schools (Branch) in Sagaing Region, 3 Basic Education High Schools and 3 Basic Education High Schools (Branch) in Mandalay Region and 3 Basic Education High Schools in Kachin State. Out of 932 Grade 10 students, 460 (49%) are boys and 472 (51%) are girls and their ages range from 14 to 17 years.

### **Research Instruments**

Parental Psychological Control Scale was adapted from Psychological Control Scale-Youth Self-Report (PCS-YSR) by Barber (1996) and Psychological Control-Disrespect Scale (PCDS) by Barber et al., (2012). PPCS consists of 41 items: constraining verbal expression (5 items), invalidating feelings (6 items) and personal attack on child (5 items), guilt induction (6 items), love withdrawal (5 items), erratic emotional behavior (4 items), achievement-oriented psychological control (5 items) and separation-anxious psychological control (5 items). It is 5-point Likert Scales ranging from never (1), rarely (2), sometimes (3), often (4) and always (5).

There are three forms of checklist (Parent Report Form, Teacher Report Form and Child Report Form) to measure the internalized and externalized behaviors of adolescents. This checklist was first formulated by Achenbach (1991) to examine behavioral and emotional problems. Among them, Child Report Form (Achenbach, 2001, revised form) was utilized to measure the externalized behaviors of high school students in this study. In the original checklist,

there are 118 items and it is assessed by the child himself/ herself and small number of items was dropped to reduce the potential difficulties with children. There were 82 items left to measure externalized behaviors.

After constructing the instruments, face validity and content validity were assessed by seven experts from Department of Educational Psychology, Yangon University of Education and two experts who have more teaching experiences, retired lecturers from Department of Educational Psychology, Yangon University of Education.

Pilot testing was done with a sample of 160 Grade 10 students from No.2, Basic Education High School, Myinmu in third week of January, 2020 to test whether the wording of items, statements and instructions were appropriate, relevant and clear for them. And then, the wordings and phrases of some items were modified to adapt with students' understanding levels. After conducting the pilot study, reliability coefficients for PCS-YSR (0.86) and PCDS (0.84) were established for Parental Psychological Control Scale and Child-Behavior Checklist was 0.89 in this study.

### Data Analysis and Research Findings

#### Descriptive Statistics of Parental Psychological Control

Descriptive analyses revealed that the mean and standard deviation of high school students' parental psychological control were 135.73 and 17.175 respectively. The maximum score is 205 and minimum score is 89. Based on descriptive analyses of parental psychological control, students with scores above the (+1) *SD* from the sample mean were identified as the high group and students with scores below (-1) *SD* were identified as the low group. And then, students with scores (+1) *SD* and (-1) *SD* from the mean were identified as the moderate group.

**Table 1 Descriptive Statistics of High School Students' Parental Psychological Control**

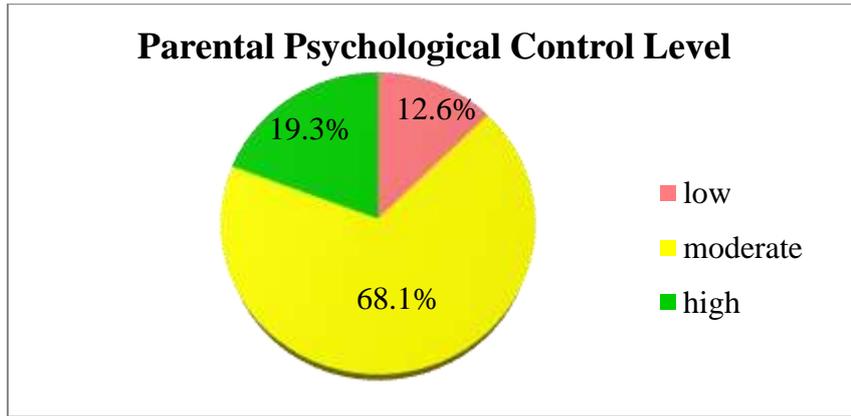
Variable	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>
Parental Psychological Control	932	89	205	135.73	17.175

The results indicated that 12.6% of the students had low level of parental psychological control and 19.3% of students had high level of parental psychological control. But, the majority of respondents were regarded as possessing moderate parental psychological control (*N*=635, 68.1%) (See Table 2).

**Table 2 Number and Percentage of High School Students' Parental Psychological Control Levels**

Parental Psychological Control Level	Number	Percentage
Low	117	12.6%
Moderate	635	68.1%
High	180	19.3%

Therefore, Figure 1 illustrates the distribution of the Grade 10 students' parental psychological control scores in range of low, moderate and high group.



**Figure 1** Percentage of High School Students on Parental Psychological Control Level

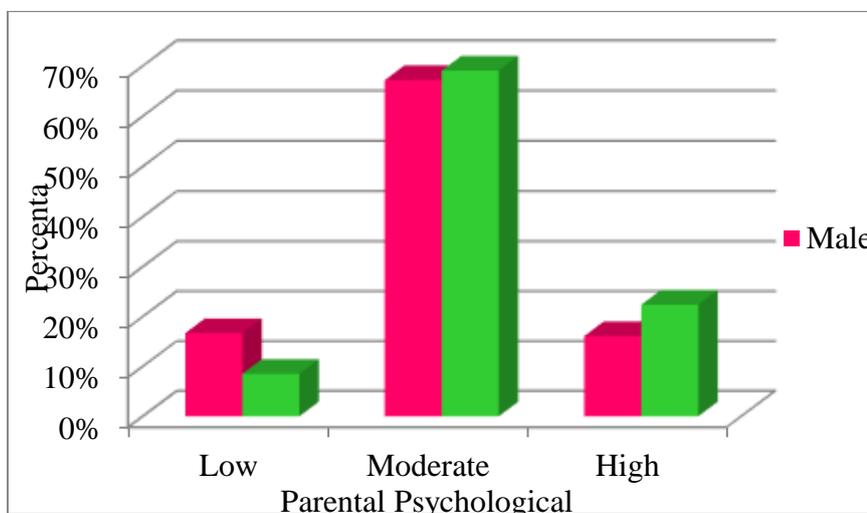
**Comparison of Parental Psychological Control Levels by Gender**

Gender differences on parental psychological control were investigated by cross tabulation. Table 3 revealed that the number and percentage of male students in low parental psychological control level was more than the number and percentage of female students in low parental psychological control level. But the number and percentage of female students in high parental psychological control level was more than the number and percentage of male students in high parental psychological control level.

**Table 3** Number and Percentage of High School Students on Parental Psychological Control Levels by Gender

Parental Psychological Control Level	Gender		Total
	Male	Female	
Low	77 (16.7%)	40 (8.5%)	12.6% (117)
Moderate	309 (67.2%)	326 (69.1%)	68.1% (635)
High	74 (16.1%)	106 (22.4%)	19.3% (180)
<b>Total (N)</b>	<b>460</b>	<b>472</b>	<b>932</b>

Figure 2 shows the male and female high school students’ parental psychological control on high, moderate and low group.



**Figure 2** Percentages of High School Students on Parental Psychological Control Level by Gender

According to Table 4, the mean parental psychological control score of female students was more than that of male students. This means that parents of female students control more their children than parents of male students. To confirm the result, the independent sample *t*-test was used. The result indicated that statistically significant gender difference was found on parental psychological control. This finding is consistent with girls felt their parents more psychologically controlled than boys (Luebbe et al., 2014).

**Table 4 Mean Comparison of High School Students' Parental Psychological Control by Gender**

	Mean	Number	SD	<i>t</i>	<i>p</i>
Male	192.44	460	31.102	4.193***	.000
Female	201.09	472	31.821		

**Note.** \*\*\*  $p < 0.001$

Moreover, the differences between eight components of parental psychological control on gender were investigated. Table 5 indicated that the mean differences between parental psychological control components on gender. Among these eight components, the mean scores of female students were significantly higher than that of male students in constraining verbal expression, guilt induction, love withdrawal, erratic emotional behavior, achievement-oriented psychological control and separation-anxious psychological control.

**Table 5 Mean Comparison of High School Students' Parental Psychological Control Components by Gender**

PPC Components	Gender	Mean	SD	<i>t</i>	<i>df</i>	<i>p</i>
Constraining verbal expressions	Male	12.963	3.37	2.385***	930	.001
	Female	16.557	3.28			
Invalidating feelings	Male	11.241	3.76	1.603	930	.109
	Female	14.780	3.97			
Personal attack on Child	Male	12.452	3.98	1.419	930	.156
	Female	16.487	3.88			
Guilt Induction	Male	10.325	3.74	2.389*	930	.017
	Female	13.447	3.72			
Love Withdrawal	Male	10.784	3.12	2.825**	930	.005
	Female	15.329	2.97			
Erratic Emotional Behavior	Male	8.343	2.89	4.260***	930	.000
	Female	9.185	3.13			
Achievement-oriented Psychological Control	Male	12.445	3.56	2.886**	930	.004
	Female	15.102	3.39			
Separation-anxious Psychological Control	Male	10.537	2.52	4.631***	930	.000
	Female	14.281	2.71			

**Note.** \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

According to the Table 5, it may be concluded that female students expressed their parents use more constraining verbal expressions, guilt induction, love withdrawal, erratic emotional behaviors, achievement-oriented psychological control separation-anxious psychological control than male students. This finding is consistent with Petti et al. (2001) that indicated significant difference exists in achievement-oriented and separation-anxious psychological control by gender.

**Descriptive Statistics of High School Students' Externalized Behaviors**

Descriptive analyses revealed that the mean and standard deviation of high school students' externalized behaviors were 141.476 and 19.67 respectively (see Table 6).

**Table 6 Descriptive Statistics of High School Students' Externalized Behaviors**

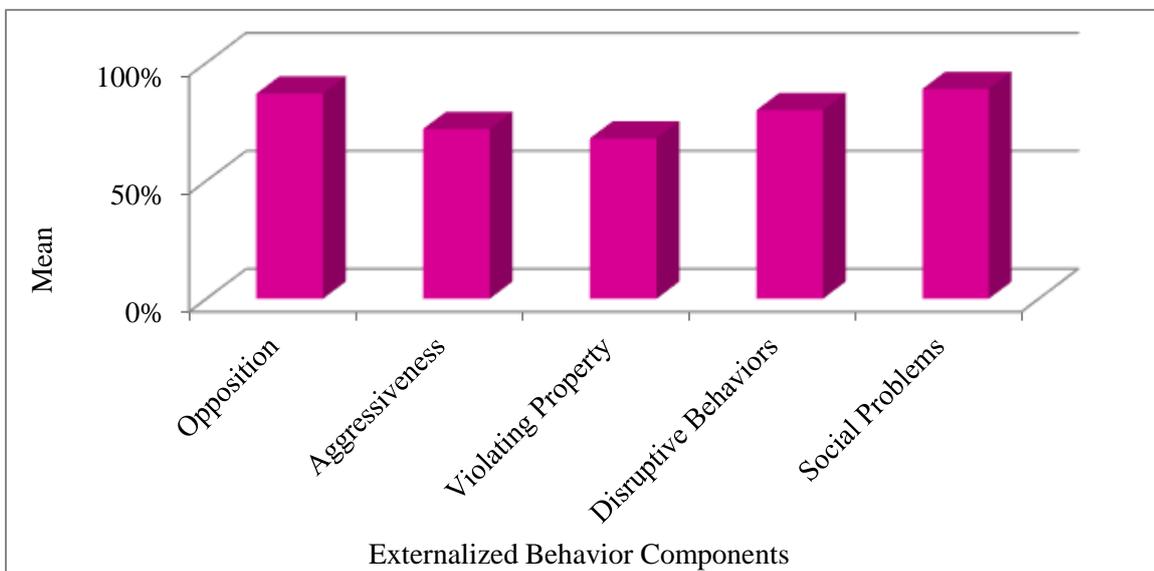
	<i>N</i>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<i>SD</i>
Externalized Behaviors	932	90	224	141.476	19.67

Moreover, Table 7 indicated that the descriptive analyses of the mean, mean percentage and standard deviation of high school students' externalized behavior components.

**Table 7 Descriptive Statistics of High School Students' Externalized Behavior Components**

<b>EB Components</b>	<b>Mean</b>	<b>Mean Percentage</b>	<i>SD</i>
Opposition	14.89	86.54 %	2.71
Aggressiveness	11.16	72.37 %	2.26
Violating Property	9.35	68.21%	1.96
Disruptive Behaviors	15.49	80 %	2.64
Social Problems	19.84	88.81%	3.43

According to the descriptive statistics, differences in mean percentages were found concerning with the components of externalized behaviors of high school students (see Figure 3).



**Figure 3 Mean Comparisons of High School Students' Externalized Behavior Components**

**Comparison of High School Students' Externalized Behaviors by Gender**

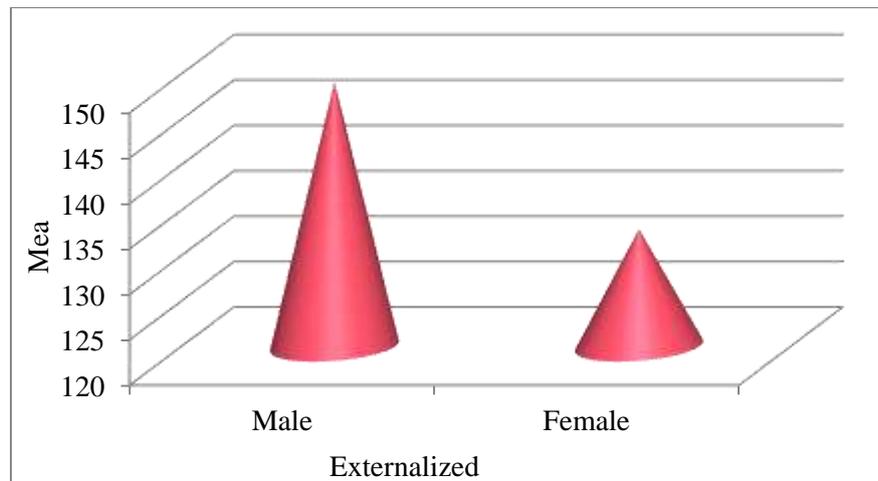
The results indicated that the mean score of male students (149.12) was significantly higher than that of female students (132.89). To investigate the differences of externalized behaviors by gender, an independent sample *t*-test was utilized. According to the result, there was significant difference between male and female students on externalized behaviors. It was found that male high school students have more externalized behaviors than female high school students (See Table 8).

**Table 8 Mean Comparison of High School Students' Externalized Behaviors by Gender**

Gender	N	Mean	SD	<i>t</i>	<i>p</i>
Male	460	149.12	19.92	2.508**	.002
Female	472	132.89	18.76		

Note. \*\* *p* < 0.01

According to the result, male students had significantly higher externalized behaviors than that of female students (See Figure 4).



**Figure 4 Mean Comparison of High School Students' Externalized Behaviors by Gender**

And then, the differences between five externalized behaviors components on gender were investigated. Table 9 showed that the mean differences between externalized behaviors components on gender. Among five components, the mean scores of male students were significantly higher than that of female students in opposition, aggressiveness, violating property and disruptive behaviors. This finding evidently pointed out that male students' opposition, aggressiveness, violating property and disruptive behaviors are significantly higher than female students (See Figure 5).

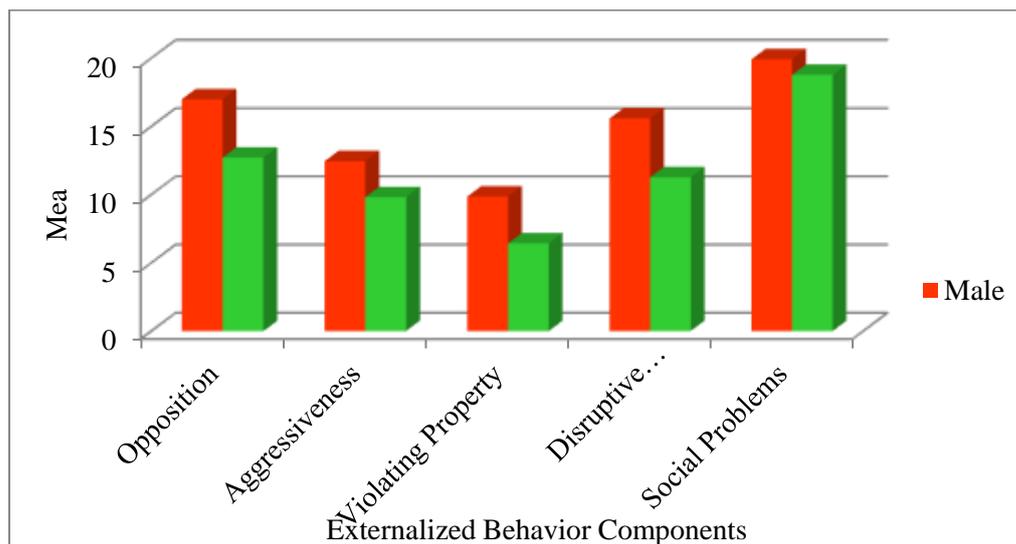
**Table 9 Mean Comparison of High School Students' Externalized Behavior Components by Gender**

EB Components	Gender	Mean	<i>t</i>	<i>df</i>	<i>p</i>
Opposition	Male	16.98	1.452***	930	.000
	Female	12.72			
Aggressiveness	Male	12.45	3.828***	930	.000
	Female	9.81			
Violating Property	Male	9.86	3.547**	930	.007
	Female	6.43			

EB Components	Gender	Mean	<i>t</i>	<i>df</i>	<i>p</i>
Disruptive Behavior	Male	15.58	1.041***	930	.000
	Female	11.27			
Social Problems	Male	19.92	.709	930	.479
	Female	18.78			

Note. \*\* $p < 0.01$ , \*\*\* $p < 0.001$

This finding is consistent with Muris et al. (2003) which found that male students occurred more aggressiveness and disruptive symptoms than that of female students. Moreover, Hicks et al. (2007) found that individuals increase externalizing behaviors have been found to be greater for males than for females.



**Figure 5** Mean Comparison of High School Students' Externalized Behavior Components by Gender

The results pointed out that significant difference between components of externalized behaviors according to gender. Moreover, to examine more detailed information for particular group according to parental psychological control levels, Post-hoc Test by Tukey method was utilized (see Table 10).

**Table 10** Comparison of High School Students' Externalized Behaviors by Parental Psychological Control Levels

PPC Levels	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>
Between Group	3271.152	2	1635.576	4.258***	.000
Within Group	32861.321	929	384.156		
Total	36132.473	931			

Note. \*\*\*  $p < 0.001$

**Table 11 Results of Tukey HSD Multiple Comparisons for Externalized Behaviors by Parental Psychological Control Levels**

Variable	(I) Level	(J)Level	Mean Difference (I-J)	<i>p</i>
Externalized Behaviors	High PPC Level	Low PPC Level	4.968***	.000
		Moderate PPC Level	2.213*	.012

Note. \**p* < 0.05, \*\* *p* < 0.001

The result of Table 11 revealed that students of high parental psychological control level were significantly different from middle and low parental psychological control levels and got higher scores in externalized behaviors. So, it is concluded that students with high parental psychological control level may occur high externalized behaviors than other parental psychological control levels of students.

**Relationship between Parental Psychological Control and Externalized Behaviors of High School Students**

To investigate how the components of parental psychological control were correlated with the components of externalized behaviors, Pearson correlation was calculated.

**Table 12 Correlation between Parental Psychological Control and Components of Externalized Behaviors**

	PPC	Opposition	Aggressiveness	VP	DB	SP
PPC	1	.712**	.569**	.673**	.425**	.628**
Opposition		1	.354**	.529**	.596**	.453**
Aggressiveness			1	.423**	.219**	.613**
VP				1	.243**	.432**
DB					1	.365**
SP						1

Note. \*\* Correlation is significant at 0.01 level.

- PPC - Parental Psychological Control
- VP - Violating Property
- DB - Disruptive Behaviors
- SP - Social Problems

As mentioned above, components of parental psychological control were significantly positively correlated with opposition, aggressiveness, violating property, disruptive behaviors and social problems. The results shown in Table 12 also revealed that there was significant correlation between parental psychological control and externalized behaviors of high school students at *p* < 0.01 level. It is consistent with the findings of Barber et al. (2012) indicated that parental psychological control was related to externalized behaviors of adolescents. Maternal psychological control has a stronger influence on antisocial behavior (Roman et al., 2012). Moreover, Batanova and Loukas (2014) found that parental psychological control has been related to depressive symptoms and peer victimization of adolescents.

From this finding, it may be assumed that the psychological control of parents can affect their children' externalized behaviors to some extent and so the influence of parental psychological control should be considered in decreasing externalized behaviors of students.

### Regression Analysis for Prediction of High School Students' Externalized Behaviors

To construct the model for externalized behaviors of high school students, more detailed analyses were conducted by using regression analysis. A simple linear regression analysis was calculated to identify the model for predicting high school students' externalized behaviors. Regression analysis revealed that the model significantly explained externalized behaviors. Table 13 showed that linear regression analysis for parental psychological control and externalized behaviors of high school students.

**Table 13 Regression Analysis for Prediction of Externalized Behaviors**

Variables	<i>B</i>	$\beta$	<i>t</i>	<i>R</i>	<i>R</i> <sup>2</sup>	Adj <i>R</i> <sup>2</sup>	<i>F</i>
(Constant)EB	98.973						98.581***
PPC	.473	.547	9.329	.547	.299	.298	

Note. EB = Externalized Behaviors  
PPC = Parental Psychological Control



**Figure 6 Model for Parental Psychological Control and Externalized Behaviors**

To make the model for externalized behaviors, more detailed analyses were carried out by using regression analysis. A simple linear regression analysis was conducted for predicting externalized behaviors of high school students based on their parental psychological control. Regression analysis revealed that the model significantly moderately explained externalized behaviors, ( $F = 98.581^{***}$ ) that showed to determine whether the model is a good fit for the data according to the  $p$ -value.  $R^2$  for the model was 0.299 and adjusted  $R^2$  was 0.298. A value of 0.298 indicates that 28.9% of variance can be predicted from parental psychological control. According to the Table 13 result, parental psychological control contributed 28.9 % variance to externalized behaviors of high school students.

$$EB = 98.973 + .473 PPC$$

Moreover, the following hierarchical regression analyses were conducted to measure the influence of parental psychological control on externalized behaviors of high school students. An eight step hierarchical multiple regression analysis was used to assess how much additional variance in externalized behaviors can be explained by incrementally additional variance in externalized behaviors can be explained by incrementally adding predictor variables to the equation. Hierarchical multiple regression was chosen because theoretical relevance was given priority over statistical considerations. Variables that explained externalized behaviors were entered eight steps.

In Step 1, externalized behavior was the dependent variable and constraining verbal expression was the independent variable. In Step 2, invalidating feeling was entered into the Step 2 equation. The process was repeated at Step 3 with personal attack on child, at Step 4 with guilt induction, at Step 5 with love withdrawal, at Step 6 with erratic emotional behaviors, at Step 7 with achievement-oriented psychological control and at Step 8 with separation-anxious psychological control.

Before the hierarchical multiple regression analysis was performed, the independent variables were examined for collinearity. Results of inflation factor VIF (all less than 1.9) and collinearity tolerance (all greater than .57) suggested that the estimated  $\beta$ s are well established in the following regression model.

**Table 14 Standardized Beta Coefficients from Hierarchical Multiple Regression Analysis of Parental Psychological Control Components on Externalized Behaviors**

Predictors	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
1.CVE	.018**	.029**	.078**	.132***	.153***	.164***	.198***	.241***
2.IF		.198***	.173***	.147**	.116**	.082**	.073**	1.611
3.PAC			.156***	.134***	.122***	.143***	.151**	2.169***
4.GI				.214**	.192**	.176**	.163**	3.122***
5.LW					.212**	.195**	.172**	4.158***
6.EEB						.264**	.217**	6.125
7.APC							2.51**	7.132***
8.SPC								6.214***
9. $R^2$	.067	.095	.098	.175	.232	.254	.261	.298
10.Adj $R^2$	.067	.092	.096	.173	.230	.253	.259	.296
11. $R^2$ Change	.067***	.025**	.004**	.077*	.057**	.023***	.006**	.037***
12.F value	$F(1,930)$ =138.381 $p < 0.001$	$F(2,929)$ =101.762 $p < 0.001$	$F(3,928)$ =89.215 $p < 0.001$	$F(4,927)$ =98.157 $p < 0.001$	$F(5,926)$ =112.543 $p < 0.001$	$F(6,925)$ =114.124 $p < 0.001$	$F(7,924)$ =109.287 $p < 0.001$	$F(8,923)$ =106.241 $p < 0.001$

**Note.** \*Correlation is significant at 0.05 level.

\*\*Correlation is significant at 0.01 level.

\*\*\* Correlation is significant at 0.001 level.

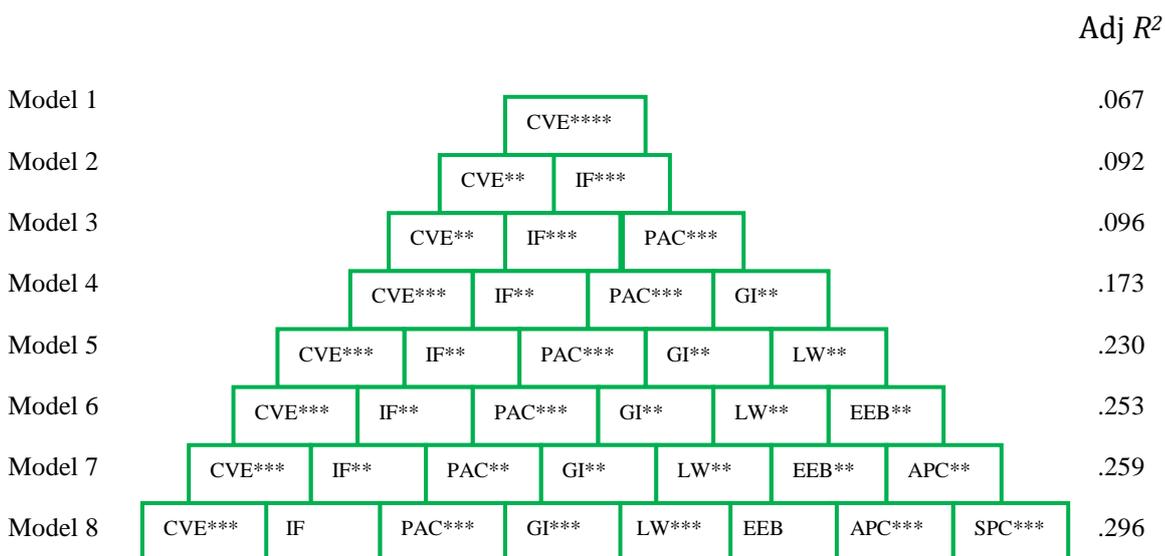
CVE = Constraining Verbal Expression, IF = Invalidating Feeling, PPC= Personal Attack on Child, GI = Guilt Induction, LW= Love Withdrawal, EEB = Erratic Emotional Behaviors, APC = Achievement-oriented Psychological Control, SPC = Separation-anxious Psychological Control.

The results of the regression analysis showed that constraining verbal expression was able to account for 6.7 % of the variance in externalized behaviors when entered at Step 1,  $R^2=.067$ ,  $F(1,930) = 138.381$ ,  $p < 0.001$ . Invalidating feeling was able to account for 9.2 % of the variance in externalized behaviors when entered at Step 2,  $R^2=.095$ ,  $F(2,929) = 101.762$ ,  $p < 0.001$ . Personal attack on child was able to account for 9.6% of the variance in externalized behaviors when entered at Step 3,  $R^2 = .098$ ,  $F(3,928) = 89.215$ ,  $p < 0.001$ . Guilt induction was able to

account for 17.3 % of the variance in externalized behaviors when entered at Step 4,  $R^2=.175$ ,  $F(4,927) =98.157$ ,  $p < 0.001$ . Love withdrawal was able to account for 23% of the variance in externalized behaviors when entered at Step 5,  $R^2=.232$ ,  $F(5,926) =112.543$ ,  $p < 0.001$ . Erratic emotional behavior was able to account for 25.3 % of the variance in externalized behaviors when entered at Step 6,  $R^2=.254$ ,  $F(6,925) =114.124$ ,  $p < 0.001$ . Achievement-oriented psychological control was able to account for 25.9 % of the variance in externalized behaviors when entered at Step 7,  $R^2=.261$ ,  $F(7,924) =109.287$ ,  $p < 0.001$ . Separation-anxious psychological control was able to account for 29.6% of the variance externalized behaviors when entered at Step 8,  $R^2=.298$ ,  $F(8,923) =106.241$ ,  $p < 0.001$ .

At Step 8, the  $\beta$  results revealed that constraining verbal expression ( $\beta = .241$ ,  $p < 0.001$ ), personal attack on child ( $\beta = 2.169$ ,  $p < 0.001$ ), guilt induction ( $\beta =3.122$ ,  $p < 0.001$ ), love withdrawal ( $\beta= 4.158$ ,  $p < 0.001$ ), achievement-oriented psychological control ( $\beta = 7.132$ ,  $p < 0.001$ ) and separation-anxious psychological control ( $\beta = 6.214$ ,  $p < 0.001$ ) were positive and significant predictors of high school students' externalized behaviors.

Based on the results, the  $R$ -square increased from .067 into .298 with the addition of subsequent sets of variables. The multiple  $R^2$  was .298, which means that the total contribution by the combined set of parental psychological control accounted for approximately 29.8 % of the variance of externalized behaviors. Thus, the collective relationship between externalized behaviors and the set of predictor variables can be characterized as moderately strong. The  $\beta$  results showed that constraining verbal expression, personal attack on child, guilt induction, love withdrawal, achievement-oriented psychological control and separation-anxious psychological control were key predictors on externalized behaviors. However, invalidating feelings and erratic emotional behaviors were not significant predictors on externalized behaviors (see in Table 14).



**Figure 7** Predictive Models of Components of Parental Psychological Control on Externalized Behaviors of High School Students

## Conclusion

In this study, there were significant differences in parental psychological control and externalized behaviors by gender. Female students were higher in parental psychological control than male students. But, male students were higher in externalized behaviors than female students. Moreover, there was a significant difference in externalized behaviors by parental psychological control levels. The components of parental psychological control would be significantly correlated with externalized behavior components. It can be predicted that students who possess high parental psychological control have more externalized behaviors.

Children who are products of poor parenting are more likely to be angry, have more internalized and externalized problems. August (2011) found that poor communication between parents and their child, less parental involvement, parents' lack of confidence in parenting and overall poor parent-child relations were related to increase in internalizing and externalizing behaviors in children. Children spend an incredible amount of time in home. Children feel safe and security to talk their parents when they face problems, feel comfortable and intimacy at home, feel appreciated or being involved in decision-making at home in a positive relationship of their parents, they will have greater self-confidence and more positive attitudes in their lives. In contrast, in a chaotic and coercive parenting at home, their children become more depressed and anxious. So, they feel guilty because their parents blame them if they don't and failure in the expectations of parents. They start to develop negative emotional and behavioral problems.

The results of this study could provide important information for parents and teachers. Specifically, for the adolescents, if they are engaging in internalized and externalized behavior, both adolescents and their parents should receive assistance through intervention.

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