

The Perceived Parental Support, Autonomous-Self and Well-Being of Adolescents: A Cluster-Analysis Approach

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Abstract Self determination theory (SDT) suggests that parenting style as a socialization agency plays a substantial role in supporting the relationship between perceived need support from parents and adolescents' well being. In this study, the relations between the adolescents' perception of their parental support to their well-being and to their autonomous development were examined. At the same time, the contributions of the parents' autonomous support, involvement and warmth in facilitating adolescents' well-being and autonomous development were explored. A cluster analysis was used to determine the different parental supportive styles on the basis of the three dimensions of parental perception. A total of 470 high school students aged between 14 and 18 participated in the study. The present research clarifies the impact of supportive parenting for adolescents' subjective well-being and autonomous self development as consistent with SDT. The findings suggest that when the parenting climate provides a setting that enables the adolescents to develop autonomous-self, it contributes to healthy development and well-being of adolescents.

Keywords Parental support · Adolescents · Well being · Autonomous-self · Self-determination theory

Introduction

Self determination theory (SDT) suggests that parenting style as a socialization agency plays a critical role in supporting the relationship between the perceived need support and adolescents' well-being. Exploring the dimensions in this relationship, SDT studies (Grolnick et al. 1997; Ryan and Deci 2000a) stressed the fact that the satisfaction of three psychological needs (autonomy, competence and relatedness) supported and contributed to the adolescents' well-being and decreased their ill-being. Competence is the psychological need to accomplish mastery in dealing with the environment (Grolnick et al. 1997, p. 138). The need for autonomy is a basic human propensity to be the origin or agent with respect to action (Grolnick et al. 1997). Relatedness is the need to experience love and interpersonal contact, warmth and affection. The satisfaction of these needs is natural, active propensity towards engagement with social values. SDT scholars (e.g., Ryan and Deci 2000b) propose that this process is an important basis for the healthy development for integration into a coherent and unified sense of self. According to Ryan and Deci (2000a), three basic psychological needs must be satisfied across the life span for all age group individuals to experience an ongoing sense of integrity and well-being.

The antecedents of healthy self-regulation and psychological well-being are addressed within SDT. Additionally, SDT suggests that the satisfaction of three basic psychological needs (Deci and Ryan 1985; Ryan and Deci 2000a, b) is prerequisite for the initiation of autonomously regulated or self-determined behavior. A vast number studies in

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various domains (e.g., education, development, sport, work, and therapy) showed that the basic need satisfaction supported positive outcomes, such as well-being, performance and persistence, and at the same time prevented negative outcomes, such as ill-being and drop-out (e.g., Sheldon et al. 2001). From this standpoint, three basic psychological needs have been considered as the nutrients that are essential for psychological growth (Ryan and Deci 2000b).

As a critical developmental stage, adolescents' need for support is hypothesized to be crucial for healthy adjustment and development. Many of studies on child socializing process pointed out that one of the most important role of parents was to be significant figures in the adolescents' development process (e.g., Grolnick et al. 1991; Soenens and Vansteenkiste 2005). SDT suggested that the parenting style as a socialization agency played a substantial role in supporting the relationship between perceived need support and adolescents' well-being (Niemic et al. 2006). Similarly, Ryan et al. (1994) indicated that when adolescents felt strongly related to their parents, they were more autonomous in the self-regulation and experienced higher well-being than those whose needs for relatedness were not well satisfied with their parents. This finding pointed that adolescent, who were autonomous and felt related to parents, seemed to have more choices to pursue their interest and to be better adjusted.

Reis et al. (2000) claimed that autonomy, competence, and relatedness were the most crucial psychological needs that were associated with psychological well-being. They also suggested that the satisfaction of these important psychological needs was critical in predicting emotional well-being. Similarly, several studies revealed that the parental support for basic psychological needs was positively related to the adjustment and mental health of children and adolescents (e.g., Grolnick et al. 2007). Further, Niemic et al. (2006) examined the relations between the perceived need support from parents and the adolescents' well-being. Their findings showed that the perceived need support from parents (mother and father) independently predicted adolescents' well-being. In another study, the relations between the parental autonomy support and the way in which young people internalized the values and guidelines of both their own cultures and the host cultures were examined (Downie et al. 2007). The results suggested that the autonomy-supportive parenting was associated with the greater internalization of both their own and host cultural values, and with the higher levels of well-being. On the other hand, within SDT, thwarting the needs for autonomy, such controlling parenting practice tended to impede internalization and thwarted the adolescents' development of autonomy and well-being (Grolnick and Ryan 1989; Vansteenkiste et al. 2004). Similarly, Ryan

et al. (1994) found that thwarting of the need for relatedness was also found to have negative consequences for autonomous self-regulation and well-being. Taking these findings into account, it can be stated that SDT points out the universal importance of autonomy support in promoting healthy internalization and adaptation.

According to SDT scholars (Grolnick et al. 1991; Soenens and Vansteenkiste 2009), there are three important dimensions of parenting practices for facilitating inner resources in children: (a) autonomy support, (b) involvement and (c) warmth. Deci and Ryan (1985) have identified that autonomy is the degree to which the initiation and regulation of action results from one's sense of self. SDT's position regarding the underlying mechanisms explains the influence of parents' autonomy supportive role on individuals' autonomous self or self-determined development. Unlike the common understanding in developmental psychology, SDT scholars define autonomy-supports differently in terms of the promotion of volitional functioning (Ryan 1993; Soenens et al. 2007). Volitional functioning parents do not tend to encourage their children to act independently. However, they attempt to encourage their children to behave on the basis of self-endorsed rather than controlled motives. Within SDT scholars (Deci et al. 1994) in order to promote volitional functioning, parents empathize with their children's perspective, encourage their children to carefully reflect on their values and goals, provide a developmentally appropriate degree of choice, and give a meaningful rationale when choice is limited.

Controlling parenting is the opposite of volitional functioning parenting. Controlled behavior, however, refers to the enactment of behavior out of pressure and obligation. Stating differently, controlling parenting neglects their children's perspective and pressures their children to think, behave, or feel in particular ways. Parents realize controlling parenting in various ways: They deal with problems instead of their children, directing their behavior, and taking their own (rather than the child's) perspective. Because it frustrates individuals' basic psychological needs, controlling parenting specifically promotes controlled regulation and thus impedes an autonomous regulation (Grolnick 2003; Ryan and Deci 2006). Indeed, parents' autonomy support within SDT concerns encouraging of parents their children to initiate and make their own choices rather than apply pressure and inducement to control the child's behaviors.

Relative to the concept of parental autonomy support, Robbins (1994) provided empirical evidence on the relationship between parental autonomy support and autonomy-related child outcomes, including self-esteem, self-regulation, mental health, and causality orientations. The study also demonstrated that higher perceived parental autonomy support was related to greater vitality and self-actualization. On the other hand, low perceived parental

autonomy support was associated with greater separation-individuation difficulty. Further, the study revealed that students' perceptions of paternal autonomy support were positively associated with fathers' self-reported self-esteem and mental health. Robbins also reported that students' perceptions of maternal autonomy support were positively related to the degree of autonomous causality orientation in mothers. Similar to the findings outlined previously, Grolnick (2009) clearly stated that by taking children's perspectives and viewpoints, allowing children choices, and supporting their initiatives and problem solving attempts parents could support their children's need for autonomy. Grolnick (2009) also put forward that such practices would help children to experience themselves as active agents in their school and other endeavors.

Parental involvement is the second crucial dimension in parent-child studies. It has been considered to be strongly connected with healthy child development. During adolescence, young people need to be provided sufficient freedom from parental authority and control, so that they would experience themselves as individuals with needs and feeling of their own, make decision about their own lives, and take responsibility for the consequences of those decisions. Adolescents want their parents to demonstrate an "emotional connectedness" (support, involvement, personal relationship) and a "sense of separateness" (autonomy, uniqueness, freedom of personal expression) toward their problems in a tolerance (Sabatelli and Anderson 1991). The lack of involvement between parents and teenagers is partly rooted in a lack of understanding and appreciation that each has for the other. There are also many studies in the literature showing the effects of second parental contribution to positive and healthy development of adolescents. For instance, Grolnick et al. (1991) examined a process model of relations among children's perceptions of their parents (autonomy support and involvement), their motivation and their school performance. The findings of their study showed that perceived maternal autonomy support and involvement were positively related to perceived competence, control understanding and autonomy. A recent experimental study on father involvement was carried out to examine the relationship between fathers and adolescents and also to test the effectiveness of Father Involvement Training (Kocayörük and Sümer-Hatipoğlu 2009). The results showed that the experimental group's fathers gained higher total scores both at the end of the study and at the follow-up measures regarding their relations with their children. On the basis of these findings, it could be suggested that the adolescents with high or appropriately involved parents felt most trustworthy, competent and well then those of less or inappropriately involved parents.

The last effect of the parents on adolescents is the parental warmth that assumes conceptually a distinct

dimension of parental influences. Warmth is typically considered a stylistic aspect of parenting. In fact, parenting style is considered as an emotional climate within a home, and this emotional climate is related to the particular dimensions of parental behaviors, such as warmth, behavioral control, or psychological autonomy (Fletcher et al. 2000). While warm and responsive parents may differ in the specific manners in which they interact with their children, they share an underlying emphasis on concern for and respond to their children's specific needs. Conger and Galambos (1997) suggested that during the early adolescence, the parental use of induction or reasoning, consistent disciplining and the expression of warmth were positively associated with self-esteem, internalized controls, prosocial orientation, and intellectual achievement.

Adolescence is characterized by a progressive movement toward increased self-awareness, well-being and personal independence. The ability of parents to adapt to adolescents' needs across adolescence stages is a crucial dimension affecting how those parents support developing autonomous self and well-being in adolescence and later developmental stages. Following a similar interest in this relationship, this study aimed to find out whether the adolescents' perceptions of their parents' behaviors might have relations to various outcomes such as well-being, self-esteem and autonomous-self or self-determined development. Also, the present study tried to answer three questions related to well-being, self-esteem, autonomous development or self-determined and perception of parents: (1) Did adolescents' perceptions of parents relate to their well-being and autonomous or self-determined development as awareness of self and perceived choice? (2) What were the relative contributions of the parents' autonomous support, involvement and warmth in facilitating adolescents' well-being and autonomous development? (3) Were there any significant differences between the perception of mother and father on adolescents' well-being and autonomous development? Many researchers suggested that mothers and fathers had different impact on adolescents' development. Thus, the perceptions of mother and father on adolescents' well-being and autonomous development were assessed separately.

Method

Participants

A total of 585 high school students from Grades 9 to 12 were asked to participate in the study during the academic year of 2009–2010. Five hundred-twenty-five students (89.7 %) agreed to participate in the study. Fifty-five participants were excluded from the study due to their

incomplete answers. The results were analyzed for the remaining 470 participants (215 males, 255 females) aged between 14 and 18 years ($M = 15.35$; $SD = 0.96$). All students came from middle-class and had their biological mother and fathers, and all lived in the same household.

Procedure

Before that data gathering process, the permission from the parents and the consent from the students were obtained. A meeting was held with the students to describe the aims of the research. After the instruments were handled for students, the instructions were read aloud, with an emphasis on the importance of completing all items. The average administration time for all instruments was 25 min.

Measures

Perception of Parent Scale (POPS, Robbins 1994). POPS was originally developed to assess the children's perceptions of their parents' autonomy support, and involvement. It also assesses the degree to which their parents provide warmth from the children's perspectives. The scale has two forms: mother form (21 items) and father form (21 items). With the ratings of these items, three subscale scores are calculated for each frame: Mother Autonomy Support, Mother Involvement, and Mother Warmth (Father Autonomy Support, Father Involvement, and Father Warmth for fathers). In the current study, the father and mother's autonomy support dimensions were employed and internal consistency of POPS was found to be 0.85 for mother autonomy supports and 0.89 for father autonomy supports.

The Turkish version of POPS consists of three scales which were adapted to Turkish by Kocayörük (2012) from Robbins's original drawings. All three sub-scales (Warmth, Autonomy Support and Involvement) having 21 items for mother and father were translated into Turkish prior to administering the study. Two bilingual Turkish scholars independently translated each item and compared their translations to resolve any disagreements. A Turkish–English bilingual supervisor translated the translated form back into English. The discrepancies emerging from this back-translation were discussed, and the adjustments to the Turkish translation of the POPS were made. The results of the exploratory factor analysis and confirmatory factor analysis revealed that the three-factor structures (Warmth, Autonomy Support and Involvement) were constructed with 18 items for mother and father dimensions. The Cronbach' Alpha (α) internal consistencies was found to be 0.91 for total perception of mother scale, 0.90 for Mother Autonomy Support, 0.61 for Mother Involvement, and 0.58 for Mother Warmth subscales. The Cronbach' Alpha (α) internal consistencies was also found to be 0.93 for the

total perception of father, 0.92 for Father Autonomy Support, 0.69 for Father Involvement, and 0.62 for Father Warmth subscales.

Rosenberg Self-Esteem Scale (RSS; Rosenberg 1965). RSS is a ten-item self-report scale developed by Rosenberg (1965) to measure the adolescent's global self-esteem. The five items in the scale are phrased positively, and the rest negatively. The negative items are reverse code and high score indicates high global self-esteem. The Turkish adaptation of RSS was done by Çuhadaroğlu (1986) by using psychometric interviews with ninth, tenth and eleventh grade secondary school students, and the results suggested the strong reliability validity properties in the middle adolescence sample.

Positive and Negative Affect Scales (PANAS; Watson et al. 1988). PANAS, developed by Watson et al. (1988), is a ten-item brief measure of affective evaluation of life with two dimensions: Positive affect (PA) and Negative Affect (NA). High PA reflects the extent to which a person feels enthusiastic, active, and alert. In contrast, "Negative Affect" (NA) is a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness, with low NA being a state of calmness and serenity. The adaptation of the scale to Turkish was made by Gençöz (2000). Consistent with the original study, the result of the factor analysis revealed two factors accounting for the 44 % of the total variance. The Cronbach alpha consistency of PANAS in this study was found to be 0.81.

The Self-Determination Scale (SDS; Sheldon et al. 1996). SDS was developed to assess individual differences in the extent to which people tend to function in a self-determined way. It is thus considered a relatively enduring aspect of personalities which reflects (1) being more aware of their feelings and their sense of self, and (2) feeling a sense of choice with respect to their behavior. The SDS is a short, 10-item scale, with two 5-item subscales. The first subscale is the awareness of oneself, and the second is the perceived choice in one's actions. The subscales can either be used separately or they can be combined into an overall SDS score. In this current study, the overall SDS score was used and the internal consistency of SDS was found 0.88.

Kart and Güldü (2008) investigated the adequacy of SDS for Turkish university students and tested the psychometric qualities of the scale. The original scale was translated into Turkish and then administrated to 232 university students. For validity analysis, Empathy Trend Scale and Autonomy Subscale of Sociotropy-Autonomy Scale were used. For the analysis, alpha value was chosen as 0.05. The factor analysis of the scale yielded a 2-factor solution with 5 items established in the first factor (self-contact) and 4 in the second (choicefulness). The reliability

coefficients of the “self-contact” and “choicefulness” subscales were 0.67 and 0.71 respectively.

Statistical Analysis

The preliminary analysis for this study explored means and correlations between variables. Following that, latent profile analysis (LPA) was performed to determine the number of valid clusters (Lanza et al. 2003). These procedures allowed us to detect the valid number of perceived-parent support profiles in our sample, and then to identify the groups of participants which would differ on the perceived-parent support profile. Latent Gold 4.5 software was used to test profile solutions of 2 to 6 classes (Vermunt and Magidson 2002).

In addition, two tests were done: a one-way multivariate analysis of variance (MANOVA) and a multiple analysis of variance (ANOVA). A One-way MANOVA was conducted with profile groups as the independent variable and the six dimensions of the perceived-parent support. In addition, ANOVA was associated with Newman–Keuls’ test to determine the effect of clusters on positive and negative affect, self-esteem, perceived choice and self-awareness.

Results

The study aimed to determine the profiles of perceived-parent support for a sample of high school students and also to investigate the effects of these profiles on the variables of the study (i.e. the well-being and self-autonomous). The associated variables with high supportive environment profile were investigated particularly in the analyses.

Preliminary Analysis

In preliminary, the gender effect was tested with the *t* test. No significant difference was found between male and female for (1) Age ($t_{468} = 1.84$; $p = 0.067$), (2) Mother Warmth ($t_{468} = -0.48$; $p = 0.63$), (3) Father Warmth ($t_{468} = -0.49$; $p = 0.63$), (4) Positive Affect ($t_{468} = 0.996$; $p = 0.32$), (5) Negative Affect ($t_{468} = 1.12$; $p = 0.26$), (6) Self-Esteem ($t_{468} = -1.39$; $p = 0.16$), (7) Perceived Choice ($t_{468} = -0.63$; $p = 0.53$), and (8) Awareness Self ($t_{468} = -0.02$; $p = 0.985$).

The results for the means, standard deviations and correlations were presented in Table 1. Two significant points were revealed. Firstly, the variable of age correlated significantly and negatively with the four subscales to the Perception of Parent Scale: Mother Involvement, Father Involvement, Mother Autonomy Support and Father Autonomy Support.

But no significant relation was found between age and the other two subscales of POPS: Mother Warmth and Father Warmth. Secondly, a stronger correlative relation was found between the parents’ involvement and their autonomy support, and several other variables in the study (Table 1). More specifically, the more parents provided involvement and autonomy support, the more children reported a high level of positive affect, self-esteem, perceived choice, and awareness self, associated a less level of negative affect. Nevertheless, the relation between warmth subscales of POPS and the variables of the study was less clear: positive correlations with positive affect, self-esteem, awareness self were systematically revealed. However, the relations between warmth subscale and, negative affect or the perceived choice could not be observed (Table 1).

The lack of the systematic correlation between the subscales of POPS and the variables tested in this study suggested that all of the dimensions measured by POPS did not have the equal importance in the well-being and autonomous development. The results from the pattern of correlation could not clearly provide an understanding about the respective importance of the involvement, autonomy support and warmth measured by POPS on the well-being and autonomous-self. For this purpose, identifying the valid profiles number that were present in the sample on the basis of the six dimensions in POPS was thought to be necessary to cover.

Perceived Parental Supports Profiles

Different perceived parental support profiles were identified using LPA in the present study. The cluster analysis allowed to determine the valid number of clusters in the sample on the basis of the six dimensions in POPS (involvement, autonomy and warmth of parents). This enabled us to determine the clusters’ number in the sample with the best fit and their composition. The recommendations of Lanza et al. (2007) were used for testing the models. The Akaike Information Criterion (AIC, Akaike 1987), Bayesian Information Criterion (BIC, Schwarz 1978), and Entropy values were used to determine the model fit. Lower values of AIC, BIC associated with higher value of Entropy indicate the best fit model. The analyses were carried on the six dimensions of POPS: (1) Mother Involvement, (2) Father Involvement, (3) Mother Autonomy Support, (4) Father Autonomy support (5) Mother Warmth and (6) Father Warmth. The results confirmed that the better suitable solution is a five-profile (Table 2).

The means of POPS subscales for each profile were shown in Table 3 and were represented in Fig. 1. Thus, Profile 1, comprising 29.79 % ($n = 140$, “High supportive parents”) of the sample, was characterized by high levels of parental involvement and autonomy support, and

Table 1 Descriptive statistics (M: mean, SD: standard deviation) and correlations for all variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Age	15.35	0.96	1.00										
<i>POPS</i>													
2. Mother involvement	5.63	1.19	-0.22**	1.00									
3. Father involvement	5.14	1.34	-0.19**	0.59**	1.00								
4. Mother autonomy support	5.12	1.03	-0.18**	0.70**	0.41**	1.00							
5. Father autonomy support	4.91	1.10	-0.18**	0.46**	0.73**	0.49**	1.00						
6. Mother warmth	4.63	0.83	-0.07	0.41**	0.28**	0.40**	0.30**	1.00					
7. Father warmth	4.51	0.91	-0.01	0.20**	0.42**	0.21**	0.48**	0.51**	1.00				
<i>Variables in study</i>													
8. Positive affect	5.01	0.94	-0.09*	0.24**	0.34**	0.23**	0.33**	0.31**	0.31**	1.00			
9. Negative affect	3.09	0.91	0.16**	-0.24**	-0.25**	-0.27**	-0.27**	0.09*	0.02	-0.13**	1.00		
10. Self-esteem	3.87	0.77	-0.09	0.34**	0.37**	0.29**	0.36**	0.09*	0.18**	0.41**	-0.43**	1.00	
11. Perceived choice	3.70	0.97	-0.14**	0.30**	0.23**	0.23**	0.20**	0.08	0.11*	0.20**	-0.21**	0.32**	1.00
12. Awareness self	3.73	0.92	0.00	0.25**	0.22**	0.22**	0.19**	0.09*	0.13**	0.23**	-0.30**	0.42**	-0.02

N = 470; * $p < 0.05$; ** $p < 0.01$

moderate level of warmth. Profile 2, comprising 27.66 % ($n = 130$, “Moderate High Supportive Parents”), was characterized by high levels of parental involvement, autonomy support and warmth but lower than cluster 1. Profile 3, comprising 17.87 % ($n = 84$, “Moderate Low Supportive Parents”), was characterized by moderate levels of parental involvement, autonomy support and warmth, just lower than cluster 2. Profile 4, comprising 9.57 % ($n = 45$, “Mother High—Father Low Supportive Parents”), was characterized by high levels for mother involvement, autonomy support and warmth, and low levels of father. Finally, Profile 5, comprising 15.11 % ($n = 71$, “Low Supportive Parents”), was characterized by low levels of parental involvement, autonomy support and warmth.

In addition to the profile check, a One-way MANOVA was conducted with profile groups as the independent variable and the six dimensions of the perceived-parent support as the dependent variable. MANOVA results showed significant differences between the five groups on the POPS dimensions ($F(7, 28) = 79.89, p < 0.001$). These results can be said to confirm the extraction of groups.

Finally, a One-way MANOVA was conducted with profile groups as the independent variable and the well-being (positive affect, negative affect, self-esteem) and self-autonomous (perceived choice, awareness self) as the dependent variable. The results showed significant differences between the five profiles ($F(5, 20) = 11.20, p < 0.001$). Besides, an ANOVA planned comparison, completed with Newman–Keuls’ Post-hoc test, were performed to compare the Five-profile (independent variables) and determine the effect of parental support profiles on dependent variables: well-being, and autonomous development. Table 3; Fig. 1 present a summary of these results (ANOVA and Newman–Keuls’ Post-hoc test) for all variables of study within the five-profile. Post hoc tests used to determine which profiles differ from each other. These analyses showed significant differences between the profiles. The means of positive affect, negative affect, self-esteem and self-autonomous index of the High Supportive Parents profile were significantly different ($p < 0.05$) than the Moderate High Supportive Parents profile, and mainly the others three profiles (Moderate Low Supportive Parents, Mother High—Father Low Supportive Parents, Low Supportive Parents). Students with High supportive environment or Moderate High Supportive environment tend to have better well-being and autonomous development. And clearly, the students with Low Supportive Parents presented the lowest well-being and self-autonomous ($p < 0.05$). However, no significant differences were found between two profiles: Low Supportive Parents profile and Moderate Low Supportive Parents, Mother High—Father Low Supportive Parents profile ($p < 0.05$).

In other words, the students with low supportive parents presented (1) significantly lower well-being and self-autonomous than the students with high or moderate

Table 2 Latent profiles analyses model fit indexes for the 2, 3, 4, 5 and 6 clusters solutions

	LL	BIC (LL)	AIC (LL)	AIC3 (LL)	Entropy	Npar	L ²	df	p value	Class. Err.
2-Cluster	-3,564.2139	7,282.2462	7,178.4278	7,203.4278	0.7773	25	12,222.2839	220	3.2e-2418	0.0486
3-Cluster	-3,420.3585	7,074.5208	6,916.7169	6,954.7169	0.7755	38	12,070.9072	213	4.6e-2392	0.0725
4-Cluster	-3,335.6016	6,984.9927	6,773.2033	6,824.2033	0.7814	51	11,939.5819	206	3.4e-2370	0.0752
5-Cluster	-3,259.2084	6,912.1916	6,646.4167	6,710.4167	0.8112	64	11,863.7501	199	3.3e-2360	0.0925
6-Cluster	-3,238.1413	6,950.0430	6,630.2826	6,707.2826	0.7884	77	11,824.4434	192	4.6e-2358	0.1285

Table 3 For each dependent variable, ANOVA results and Means comparison using Newman–Keuls’ Post-hoc

Clusters	Profile 1 (n = 140)		Profile 2 (n = 130)		Profile 3 (n = 84)		Profile 4 (n = 45)		Profile 5 (n = 71)		F	p	η ²
	High supportive parents		Moderate high supportive parents		Moderate low supportive parents		Mother high - father low supportive parents		Low supportive parents				
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD			
<i>POPS</i>													
Mother involvement	6.71 ^a	0.37	5.92 ^b	0.59	4.48 ^c	0.79	6.08 ^d	0.70	3.99 ^e	0.76	317.45	0.000	0.732
Father involvement	6.52 ^a	0.50	4.24 ^b	0.65	3.89 ^c	0.73	3.37 ^d	1.05	3.89 ^e	0.86	299.67	0.000	0.720
Mother autonomy support	5.98 ^a	0.54	5.12 ^b	0.76	4.64 ^c	0.77	5.52 ^d	0.65	3.69 ^e	0.75	143.81	0.000	0.553
Father autonomy support	5.96 ^a	0.52	5.13 ^b	0.66	4.50 ^c	0.66	3.52 ^d	0.93	3.79 ^e	0.80	192.36	0.000	0.623
Mother warmth	5.01 ^a	0.41	4.66 ^b	0.58	4.92 ^a	0.89	4.63 ^d	0.60	3.49 ^c	0.89	68.98	0.000	0.372
Father warmth	4.96 ^a	0.47	4.60 ^b	0.56	5.00 ^a	0.84	3.46 ^d	0.78	3.53 ^b	0.98	87.46	0.000	0.429
<i>Variables in study</i>													
Positive affect	5.44 ^a	0.77	5.00 ^b	0.71	5.07 ^b	0.95	4.59 ^c	0.84	4.39 ^c	1.20	20.14	0.000	0.148
Negative affect	2.79 ^a	0.81	2.95 ^a	0.68	3.49 ^b	1.14	3.29 ^b	0.82	3.34 ^b	0.99	11.38	0.000	0.089
Self esteem	4.21 ^a	0.70	4.02 ^b	0.63	3.63 ^c	0.74	3.50 ^c	0.75	3.43 ^c	0.80	21.81	0.000	0.158
Perceived choice	3.97 ^a	0.77	3.90 ^a	0.79	3.48 ^b	1.05	3.47 ^b	1.22	3.23 ^b	1.13	10.66	0.000	0.084
Awareness self	3.94 ^a	0.79	3.84 ^a	0.84	3.62 ^a	0.91	3.66 ^a	0.94	3.28 ^b	1.14	7.379	0.000	0.060

N = 470

For each dependent variable, means with different subscripts indicate a significant difference at $p < 0.05$ using Newman–Keuls’ post hoc test

supportive parents, and (2) the students with high supportive mother and low supportive father did not present significantly better levels of well-being or self-autonomous than the students with low supportive parents.

Discussion

The aim of the current study was to explore the relation between three variables in the sample of high school students: parental support, subjective well-being and autonomous-self, and also to identify the parental support profiles in this study. In addition to these, the relationship between these profiles, subjective well-being and autonomous-self was analyzed.

The results of the study showed the relations between parental support, well-being and autonomous-self of adolescents. The different indicators of parental support

(involvement, autonomy support and warmth) were positively associated with all indices of well-being and autonomous-self. The high level of parental support was associated with a higher level of adolescents’ well-being and autonomous-self.

Five parental support profiles were identified in the cluster analysis: (1) “High supportive parents”, (2) “Moderate High Supportive Parents”, (3) “Moderate Low Supportive Parents”, (4) “Mother High – Father Low Supportive Parents”, and (5) “Low Supportive Parents”. The high supportive group presented the highest levels of parental involvement and autonomy support, and the moderate level of warmth. The low supportive group presented the lower levels of parental involvement, autonomy support and warmth. Concurrently, the moderate supportive groups (“Moderate High Supportive Parents” and “Moderate Low Supportive Parents”) presented intermediary levels of parental involvement, autonomy support and

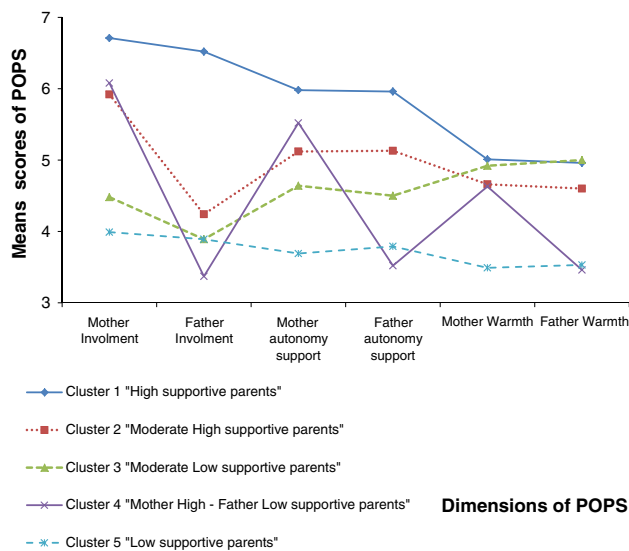


Fig. 1 Five profiles of perception of parents: perception of parents scale dimensions' as a function of cluster

warmth. Last, the mother high – father low supportive group presented high levels of mother involvement, autonomy support and warmth while it presented low levels of father involvement, autonomy support and warmth. The comparison of these five groups that were characterized by different supportive style showed that the high supportive parents could significantly contribute to adolescents' subjective well-being and autonomous development. Specifically, not only the high supportive parents could enhance the positive affects, self-esteem and could prevent the negative affects, but also could support to improve the autonomous self of the adolescents. In fact, they could enhance well-being and autonomous self. This finding was consistent with SDT that the provision of parental autonomy support was more conducive to meet basic psychological needs. As a result, such an environment would allow adolescents opportunities for choice, self-initiation and volition.

Considering the findings of the study, It could be stated that high supportive parents encouraged adolescents with the opportunities for self-directed behavior or facilitate their adolescent's choice by allowing them to make decisions about activities and friends in their free time context in order to support autonomy. Furthermore, parents encouraged self-management of these activities and allow the adolescents to structure and plan their activities to motivate responsibility that is consistent with the empirical evidence (e.g., Hutchinson, et al. 2003). The decisions to engage in autonomy supportive behavior might be associated with the beliefs about increasing responsibility with age and with the parents' supporting the adolescent to make good decisions and choices. On the other hand, low supportive parents promoted the adolescents' subjective well-being and autonomous development

less. The low supportive style could enhance the negative affects, and could reduce the increase of positive affects and self-esteem, but also support to improve the autonomous self. The moderate supportive style resulted in the better levels of well-being, and autonomous self than the low supportive style, but was lesser than high supportive groups. Finally, different parental support styles existed, and these supportive styles were clearly related to the subjective well-being and autonomous-self development in adolescents.

The relations style between children and their parents determines the different dimensions of children's development of well-being and autonomous-self. However, this result of the study brings about a new question: Is the respective role of mother and father equally in the development of children? The statistical analyses of the current study for each five group suggested that differences existed between the mother and father in terms of the parental support perceived by children. In fact, the levels of mother for involvement, autonomy support and warmth were systematically higher (or equal to) than fathers' levels, in particular mother high – father low supportive group. The findings of the current study showed that although the perception of mother supports was higher (or equal to) than the father supports, adolescents perceived that their father contributed substantially to the parental support. The results of the study were also consistent with the recent literature on the father's effect on the adolescent development. For instance, Barnett et al. (1992) showed that the sons who reported a positive relationship with their mother or father had relatively low levels of psychological distress. When the measures of both the mother–child relationship and the father–child relationship were entered simultaneously into a regression equation, only the father–child relationship was significantly related to the son's distress. More recently, Amato showed that the closeness to fathers during childhood was positively related to adult daughters' and sons' educational and occupational mobility, psychological adjustment and well-being (Amato 1994). A large body of research showed that the children with involved fathers tended to be more psychologically well-adjusted, to do better at school, to engage in less antisocial behavior and to have more successful intimate relationships (Sanford et al. 1995; Gould et al. 1997; Hwang and Lamb 1997; Flouri and Buchanan 2002).

The results of the present study might suggest some possibilities for future research. However, it has some limitations. First of all, our results reflect the responses from a high school graduate, well-educated, middle-class families. The replication of the present study with diverse samples such as low-income, divorced and disadvantaged families might help generalize the results.

In this study, the effect of parental support on subjective well-being was focused. Subjective well-being was chosen

as a dependent variable because it was argued theoretically in the empirical literature that the parental support was linked particularly to internalizing problems such as depression (Barber and Harmon 2002), school, social competence and job seeking (Soenens and Vansteenkiste 2005). Nevertheless, it would be worthwhile to examine the associations between parental support and a broader range of adjustment variables because the recent studies demonstrated that parental support was related to the adverse developmental outcomes in many areas of development, e.g., academic achievement (Vansteenkiste et al. 2005), externalizing problems (Conger and Galambos 1997), and social competence (Nelson and Crick 2002). Such research would help clarify whether the transactional dynamics shown in this article might extend to the adolescents' general psychosocial and behavioral functioning.

In addition to exploring positive and adaptive determinants in the relationship between parents and adolescents, this study provided some suggestions for the clinicians interested in intervening with the adolescents who experienced internalizing problems such as the low level of positive affect and the high level of negative effect and did not have difficulties in the development of the autonomous self. The results suggested that clinicians, who deal with such adolescents, may help them improve their well-being and self-determined behaviors and reduce the negative affect such as the feelings of shame, depression, and loneliness. Further, the supportive parenting and adolescents' well-being and autonomous self led to the need for further research that would define the characteristics of effective intervention programs on the parent-adolescent interaction. Parent training and intervention might promote skills such as parental involvement, warmth and autonomy supports that are associated with the autonomous self and well-being in adolescents.

The results from the present study showed that adolescents who had high autonomous self and well-being, perceived high supports from their parents. However, the present study did not provide a description of the process by which adolescents with low level of autonomous-self and subjective well-being could be better if they were supported effectively by their parents. Further research might build some experimental designs to investigate the effectiveness of parent training on the connection between low supportive parents and the adolescent with low level of the autonomous self and wellbeing.

In conclusion, the present research clarified the impact of supportive parenting for adolescents' subjective well-being and autonomous-self development. In fact, the parenting climate that allows supporting the adolescents' behaviors regulated on the basis of autonomous-self or self-determined represents the optimal climate for adolescent development. Given the findings of the current study, the

parents who might develop supportive skills and attitudes could serve as important role models for their children as they demonstrate positive adaptation and healthy development. Notably, the specific parental supportive styles that enhance the development of the autonomous self and well-being of adolescents include (1) providing opportunities for adolescents to make choices, express opinions, explore potential options, (2) allowing them to develop autonomy, develop social skills and (3) helping improve self-awareness and self-esteem. It is expected that this conceptualization of supportive parenting might stimulate other research to understand the impact of parenting and teaching styles for adolescents' well-being and autonomous development.

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