

Shyness and Psychological Adjustment During Adolescence: The Moderating Role of Parenting Style

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Abstract: Although shyness constitutes a risk factor for maladjustment, parenting style may influence these developmental trajectories during childhood. Little is known about the role of parental style in the relationship between shyness and psychological adjustment during adolescence.

Aims: To explore the relationship between shyness and parenting style and to analyse the moderating role of the quality of parenting in the relationship between shyness and internalizing difficulties during adolescence.

Method: 787 11 to 19 year-old participants (divided in early and late adolescents) were recruited for this study. Participants completed Revised Cheek and Buss Shyness Scale, Parental Bonding Instrument and internalizing scale of Youth Self Report.

Results: Shy adolescents perceived parents to be less warm and close, less encouraging of their autonomy and independence, and more overprotective and intrusive than did other participants. During early-adolescence participants who perceived their parents as supportive and not intrusive showed significantly fewer internalizing problems related to shyness.

Keywords: Parenting style, psychological adjustment, shyness.

INTRODUCTION

Shyness has been defined as a tendency to feel anxious and to show inhibited behaviour in interpersonal situations and/or in situations of perceived social evaluation [1]. A wide literature has consistently verified that shyness constitutes a significant risk factor for later maladjustment, such as psychological and social difficulties [2-4]. Moreover, many studies showed that, in childhood, some aspects of family context, such as parental factors, with particular reference to parenting style, may significantly influence the development and stability of shyness and contribute to maintain maladaptive developmental trajectories in shy children [5].

Nevertheless, at the moment little is known about the role that these aspects may play as risk and protection factors during subsequent developmental periods, such as during adolescence. Therefore, the main purpose of this work is to explore the moderating role of parenting style in the relationship between shyness and psychological adjustment.

Shyness and Maladjustment

Shyness is a condition rather stable over time, especially in its extreme form, but its maladaptive significance may vary according to age.

Starting from early childhood to middle infancy, shyness results associated with peer rejection, exclusion [6], victimization [7] and is considered to be a risk factor for the development of internalizing problems [8-10] including low self-esteem, excessive self-consciousness, fear of negative evaluation, and loneliness [11, 12].

Those psychological and social difficulties arise in childhood and tend to persist and worsen as the child grows and, consequently, more severe symptoms emerge with the achievement of greater self-awareness [13, 14].

In fact, during adolescence and early adulthood, shy individuals are more likely to develop various forms of emotional (i.e. depression, anxiety and psychosomatic complaints) and psychiatric disorders (e.g. social phobia, avoidant personality disorder, and generalized anxiety disorder) [15-17]. Also, shy adolescents and early adults tend to show problems in expressing one's own opinions or talking in the presence of others, in meeting people, and establishing and maintaining relationships resulting in having fewer social relationships, which are less intimate and supportive [4, 18]. As a result, they receive less social

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support from their social networks than their non-shy counterparts.

Parenting Style and Maladjustment

Based on the literature on parental qualities, crucial for healthy development of adolescents, scholars have isolated two basic components of parental socialisation, which relate to the dimensions of parental care and control. The first dimension involves the demonstration of support to the adolescent by providing emotional warmth and it is the opposite of a parenting style characterised by indifference and neglect. The second parenting dimension involves the encouragement of adolescents' dependence on the parents and it is opposed to a parenting style which encourages autonomy and independence [19, 20].

Research has consistently shown that both dimensions of parenting constitute crucial protective or risk factors for child development. Specifically, during childhood, high levels of parental care are negatively correlated with mental disorders such as anxiety, depression, somatic complaints, and social maladjustment [21], and positively correlated with self-esteem [22]. On the other hand, low parental care and high parental control are associated with psychiatric symptoms, such as depression and phobic anxiety during adolescence [23, 24], and a wide range of mental disorders in adulthood [25]. Moreover, parental warmth and high parental support and care are related to lower externalizing and internalizing problems [26], and higher levels of psychological well-being, academic competence, and self-esteem in children and adolescents [10].

Even if the parenting style remains quite stable over time, some changes can be observed with children's age. Studies have shown that especially parental control changes during child development. During infancy parental control is more direct and requires that parents exert visual control over their children [27]. Starting from middle infancy, after entering school, children spend more time outside their home, interact with a wider group of peers and participate in a greater number of activities - ever more frequently out of their parents' watchful sight. Therefore; parental control gradually becomes less direct [28]. Finally, in the transition from early to late adolescence parenting style tends to be less intrusive and more encouraging of the child's autonomy [29]. During this phase, the adolescent's perception of the parental control becomes relevant. Parental behavioral control over the personal or friendship domains of the adolescent may be interpreted as intrusive and rejected. On the contrary, adolescents are more likely to view parents as having legitimate control in other domains, such as the prudential, moral and conventional domains may be more accepted [30].

The gender of the child may also have an impact on the way in which parenting behaviors are perceived and interpreted by their children. Compared to boys, girls perceive higher levels of care and protection, and greater control from their parents, especially from their fathers [31, 21].

Shyness, Parenting Style and Maladjustment

Given that the family plays an important role in the promotion of children's wellbeing, research on shyness has devoted much attention to the topic. Studies addressing the issue of the relationship between the parenting style and shyness have mainly focused on infancy and childhood revealing that shyness during infancy is associated with specific parenting styles.

In particular, parents of shy children tend to be protective, intrusive [32], and controlling of their children's lives, and they tend to discourage their children's independence and autonomy [33, 34]. Parents of shy children may be aware of their children's difficulties and believe that the best way to protect them from potentially emotionally-arousing situations is to control every aspect of their lives [33]. Parents may organise their children's schedule, tell them what to do and how, limit their activities and behaviours, discourage their efforts to explore unfamiliar situations autonomously and take over situations in which they expect them to feel anxious even when this is not the case.

Nevertheless, such parenting style, characterized by overprotective and intrusive behaviours, may increase and reinforce shyness maintaining or reinforcing children's difficulties. Because the opportunities to practice social skills and self-regulation are denied, shy children may not learn to develop the coping skills to deal with their social anxiety and might not be able to overcome their fears. In fact, this overprotective, over-controlling parenting style discourages risk taking and active exploration in unfamiliar situations. It prevents the development of a belief system of self-efficacy and autonomy and perpetuates children's feelings of insecurity [35].

Indeed, studies have shown that parenting styles may constitute a risk factor for the development of shyness. Nevertheless, such variables may also represent a protective factor, which can assist children in overcoming shyness, and moderate the development of negative outcomes associated with shyness. For instance, Hastings and colleagues suggested that when parents' prompt the shy child to engage in everyday activities, even those that might make him/her uncomfortable, s/he may learn to cope with everyday challenges [36]. Similarly, other studies on childhood have shown that certain parenting styles may not only increase but also decrease shy children's difficulties, or moderate the relationship between shyness and psychological and social difficulties. For example, Coplan and colleagues (2008) found that an overprotective parenting style was strongly associated with internalizing problems in shy children, such as anxiety, loneliness and peer-rejection, whereas supportive parenting was associated to a lesser extent with these psychological and social issues. In fact, shy children of intrusive and controlling mothers were more likely to show internalizing problems and social dissatisfaction than shy children of less overprotective mothers. At the same time, the relationship between shyness and psychological and social difficulties was significantly less evident for shy children whose mothers were warmer and more supportive [37].

In line with these results, other studies have shown a strong relationship between a maternal over-controlling style and higher degrees of social withdrawal and reticent behaviour in shy children [38, 39]. Furthermore, overprotective parenting style, as opposed to sensitive parenting style of mothers, is a predictor of greater stability in inhibited child behaviour over time [40].

The Present Study

As previously discussed, the relationship between parenting styles and shyness has been extensively explored in infancy and childhood, but relatively little attention has been devoted to this relationship during adolescence. In particular, no studies were found analyzing the role that parenting styles play, as risk or protective factors, in moderating the relationship between shyness and psychological maladjustment during adolescence. This gap is surprising since, parents and their parenting style continue to have a relevant role in the adolescents' adjustment despite other relationships assuming a significant role in their lives, such as friendships in early-adolescence and romantic relationships during middle and late adolescence [41].

Therefore, using a *cross-sectional* approach, the current study aimed to firstly investigate in an Italian sample the relationship between shyness and parenting style during early and late adolescence, in order to explore changes by age. Moreover, since most of the recent studies that have been conducted to date with shy children have privileged the relationship with the mother [37, 42, 32], neglecting the relationship with the father [43], the current study intended to investigate both mothers' and fathers' parenting style. Finally, parenting style were analysed by gender, since evidence suggested that the gender of the child may affect both parents' behaviour with shy children [44], and perception of parents' controlling behaviours [31, 21].

Secondly, the study aimed to investigate the moderating role of parenting style in the relationship between shyness and psychological difficulties, during both early and late adolescence.

In line with findings from previous studies on earlier phases of life, the following hypotheses were formulated. In relation to the first aim, we expected that shy adolescents would perceive their parents to be more overprotective and less encouraging of autonomy than their non-shy peers. Given the scarcity of data, no hypothesis was formulated about changes occurring in these variables from early to late shy adolescents or between shy girls and boys.

In relation to the second aim, we expected that some parenting style characteristics would protect shy adolescents from negative adjustment outcomes. Therefore; we hypothesized that the relationship between shyness and psychological problems would be weaker among adolescents that perceived their parents to be warm and supportive.

METHOD

Participants

A total of 787 students were recruited for the present study. Participants were divided into two groups:

- I. The first group comprised 397 early adolescents (217 males and 180 females) aged 11 to 13 ($M = 12.32$, $SD = .71$) who were attending four secondary schools randomly selected from all the secondary schools in the metropolitan area of Florence.
- II. The second group comprised 390 late adolescents (193 males and 197 females) aged 17 to 19 ($M = 17.71$; $SD = .66$) who were attending four high schools in Florence (a Lyceum specializing in classical studies, a Lyceum specializing in science education, a Technical Institute, and an art school) selected according to a random criterion.

Participants represent the entire school population of forty classes (twenty of secondary schools and twenty of high schools). Almost all participants (99%) came from the centre of Italy, particularly the metropolitan area of Florence. The major part of participants (98%) were Caucasian and came from families of middle to high socioeconomic background and more than 70% of their parents had a high school diploma or university degree. Moreover, 92% of the participants had a two-parent family and all were lived with parents.

Procedures

Formal consent was obtained from all parents and educational authorities prior to the commencement of data collection and, if the participants were not minors, consent was also obtained from them. In accordance with the American Psychological Association's guidelines for the ethical treatment of human participants, students were first informed about the goals of the research project. Data were collected anonymously while participants were in class during school hours.

After data collection, participants were selected based on their shyness scale score. Using the 40th and 60th percentile

Table 1. Shy, shy on average, and non-shy participants in early adolescence and late adolescence by gender.

	Early adolescence			Late adolescence		
	Shy	Shy on average	Non-shy	Shy	Shy on average	Non-shy
Males	97	40	80	48	41	104
Females	94	32	54	79	43	75
Total	191	72	134	127	84	179

as cut-off points, according to the criteria of Cheek and Buss [45], participants were divided into three groups:

- Shy participants*: who obtained RCBS scores above the 60th percentile;
- Shy on average participants*: who obtained RCBS scores between the 40th and 60th percentile and;
- Non-Shy participants*: who obtained RCBS scores below the 40th percentile.

Samples distributions on the basis of these criteria are presented in Table 1.

Measures

Shyness. Participant shyness was measured using the Italian version [46] of the *Revised Cheek and Buss Shyness Scale* [47]. This scale is a unifactorial measure of shyness consisting of 13 items that measure discomfort and inhibition in social situations (for example, “I feel tense when I’m with people I don’t know well”). Items were measured on a 5-point Likert scale ranging from 1 (*very uncharacteristic*) to 5 (*extremely characteristic*). The total score ranged from 13 to 65 with higher score indicating higher shyness.

Table 2. Means and standard deviations of parental bonding dimensions with the mother.

1	Shy		Shy on average		Non-shy	
	Males	Females	Males	Females	Males	Females
EARLY ADOLESCENTS						
Care	36.41 (5.49)	36.53 (6.75)	38.68 (4.05)	38.23 (5.33)	38.30 (5.42)	39.28 (5.39)
Autonomy	15.96 (3.77)	15.32 (3.74)	17.63 (2.66)	17.12 (3.29)	17.31 (3.42)	17.08 (4.09)
Overprotection	7.79 (2.62)	7.83 (2.50)	6.17 (1.93)	6.78 (2.80)	6.84 (2.36)	6.39 (2.20)
LATE ADOLESCENTS						
Care	34.35 (4.84)	36.17 (6.72)	35.10 (5.57)	39.13 (5.40)	36.49 (5.18)	37.10 (6.51)
Autonomy	18.43 (3.10)	18.11 (3.02)	18.66 (3.30)	19.09 (2.78)	19.73 (3.11)	19.47 (3.46)
Overprotection	7.87 (2.47)	7.61 (2.37)	7.44 (2.35)	6.49 (2.23)	6.58 (2.61)	6.84 (2.44)

Table 3. Means and standard deviations of parental bonding dimensions with the father.

1	Shy		Shy on average		Non-shy	
	Males	Females	Males	Females	Males	Females
EARLY ADOLESCENTS						
Care	34.74 (6.25)	34.83 (6.94)	37.86 (4.68)	38.25 (4.29)	37.62 (5.17)	37.12 (5.80)
Autonomy	16.28 (3.93)	15.21 (3.88)	16.92 (2.74)	17.32 (3.12)	18.11 (3.29)	17.02 (4.27)
Overprotection	7.76 (2.77)	8.25 (2.83)	6.62 (1.75)	6.47 (1.64)	6.20 (2.18)	7.13 (2.55)
LATE ADOLESCENTS						
Care	31.79 (6.04)	31.84 (7.60)	32.39 (7.32)	34.21 (8.06)	34.54 (6.63)	34.13 (7.31)
Autonomy	18.69 (3.02)	17.68 (3.45)	19.31 (2.84)	17.95 (3.64)	19.71 (3.29)	18.37 (3.40)
Overprotection	6.39 (1.83)	7.13 (2.25)	6.17 (1.81)	7.00 (2.35)	5.46 (1.58)	6.51 (2.29)

The results of the Italian adaptation of the scale have confirmed a one-dimensional factorial structure. Confirmatory factor analysis procedures were used to assess the adequacy of the model, and the fit index indicated an adequate fit to the data (CFI = .91; SRMR = .06). Moreover, the internal reliability of the scale in this sample, measured through the α index, was .86.

Parenting style. The *Parental Bonding Instrument* (PBI) developed by Parker [19] was used to measure adolescents' perceptions of their parents' parenting style. This scale consisted of two parallel versions, with one for the mother and one for the father. Each version comprised 21 items which assessed the following 3 dimensions of parenting: Care (11 items, for example "Appeared to understand my problems and worries"), Encouragement towards autonomy (6 items, for example "Let me decide things for myself"), and Overprotection (4 items, for example "Invaded my privacy"). Participants were requested to respond to each item on a 4-point Likert scale ranging from "Very like" (0) to "Very unlike" (3). Internal consistency coefficients (Cronbach's alpha) for both the mother and father were .90 for Care, .81 and .76 for Encouragement towards autonomy for mother and father, respectively, and .62 and .61 for Overprotection for mother and father, respectively.

Internalizing problems. The *Youth Self Report* (YSR) developed by Achenbach [48] was administered in order to measure internalizing problems. The YSR assesses 3 syndrome scales, grouped under one broadband scale that is labeled as the Internalizing scale: Withdrawn subscale, Somatic Complaints subscale, and Anxious/depressed subscale. Internalizing problems are reflected in items such as "I felt lonely" or "I felt worthless or inferior". Each item is rated on a 3-point Likert scale ranging from "not true" (0) to "very true or often true" (2). The internal consistency coefficient (Cronbach's alpha) for the Internalizing scales was .87.

RESULTS

Shyness and Parenting Style

The mean and standard deviations of the three dimensions of the *Parental Bonding Instrument*, namely Care, Autonomy, and Overprotection, for early and late adolescent groups are presented in Table 2 and Table 3, respectively, for the relationship with the mother and father.

Two multivariate analyses of variance (MANOVAs) were conducted to assess between group differences in the perception of parenting style, for mother and father separately. A follow-up univariate ANOVA was carried out when the MANOVA results were significant. The independent variables were Group (shy, shy on average, and non-shy), Gender (males and females), and Age (early adolescents and late adolescents). The dependent variables were the three parenting style subscales.

The overall MANOVA test revealed a significant difference by group for maternal parenting. In particular, there was a significant main effect for Group, $F(6, 1546) = 8.15$, $p < .001$, $\eta^2 = .03$; Gender, $F(3, 773) = 3.81$, $p < .01$, $\eta^2 = .02$; and Age, $F(3, 773) = 40.23$, $p < .001$, $\eta^2 = .14$.

In contrast, there were no significant interaction effects for Group x Gender, Group x Age, and Group x Gender x Age.

Subsequent univariate analyses revealed that Group was a significant factor for all maternal parenting dimensions: Care, $F(2, 775) = 10.00$; $p < .001$, $\eta^2 = .03$, Autonomy, $F(2, 775) = 14.37$; $p < .001$, $\eta^2 = .04$, and Overprotection, $F(2, 775) = 17.92$; $p < .001$, $\eta^2 = .04$. In particular, Bonferroni post-hoc tests showed that adolescents in the shy group perceived less care than did their shy on average and non-shy peers. Shy adolescents also reported lower encouragement towards autonomy and independence and higher overprotection than did the other two peer groups.

Follow-up univariate analyses also revealed a statistically significant result for Gender, only for the Care dimension, $F(1, 775) = 7.22$; $p < .01$, $\eta^2 = .01$. Females in particular perceived higher care scores from their mothers than did males, however it must be noted that there was a low power effect associated with this result. On the contrary, no gender differences emerged for the Autonomy and Overprotection dimensions.

Finally, ANOVA revealed that Age was significant for the Care, $F(1, 775) = 11.81$; $p < .001$, $\eta^2 = .02$, and Autonomy, $F(1, 775) = 70.19$; $p < .001$, $\eta^2 = .08$, dimensions. Results indicated that early adolescents perceived higher care and lower encouragement towards autonomy and independence from their mothers than did late adolescents. Instead, no significant differences emerged between early and late adolescents on the maternal Overprotection dimension.

The MANOVA was statistically significant for paternal parenting, showing significant multivariate effects for Group, $F(6, 1546) = 8.45$; $p < .001$, $\eta^2 = .03$, Gender, $F(3, 773) = 7.80$; $p < .001$, $\eta^2 = .03$, and Age, $F(3, 773) = 47.76$; $p < .001$, $\eta^2 = .16$. In contrast, there were no significant interactions for Group x Gender, Group x Age, and Group x Gender x Age.

Follow-up univariate analyses showed that Group was a significant variable for all paternal parenting dimensions: Care, $F(2, 775) = 12.98$; $p < .001$, $\eta^2 = .03$, Autonomy, $F(2, 775) = 11.06$; $p < .001$, $\eta^2 = .03$, and Overprotection, $F(2, 775) = 17.16$; $p < .001$, $\eta^2 = .04$. Bonferroni post-hoc tests revealed that, as was the case for maternal parenting, adolescents in the shy group perceived lower levels of care and encouragement towards autonomy and higher levels of overprotection from their fathers than did their peers from the other two groups.

Subsequent univariate analyses conducted with Gender as the independent variable showed significant differences on two dimensions: Autonomy, $F(1, 775) = 11.46$; $p < .001$, $\eta^2 = .02$, and Overprotection, $F(1, 775) = 13.76$; $p < .001$, $\eta^2 = .02$. Girls perceived lower levels of encouragement towards autonomy and, at the same time, higher levels of overprotection from their fathers than did boys. However, even in this case it is essential to consider that there was low power associated with these results. No differences emerged between boys and girls in relation to perceived levels of care.

Lastly, univariate analyses of variance revealed that Age was a significant factor for all dimensions: Care,

$F(1, 775)=50.94$; $p<.001$, $\eta^2=.06$, *Autonomy*, $F(1, 775)=45.40$; $p<.001$, $\eta^2=.06$, and *Overprotection*, $F(1, 775)=13.12$; $p<.001$, $\eta^2=.02$. Early adolescents perceived higher levels of care and overprotection from their father than did late adolescents, while older adolescents reported greater levels of encouragement towards autonomy and independence from their father than did their younger peers.

Intercorrelations Between Variables

Intercorrelations between the major variables of this study were computed. The results indicated statistically significant intercorrelation between the three parenting style dimensions of mother and father, and between parenting style dimensions and internalizing problems, in theoretically expected direction: for both early and late adolescent group shyness was significantly and negatively associated with maternal and paternal encouragement towards autonomy and care, and significantly and positively related to maternal and paternal overprotection and internalizing problems (see Table 4).

Shyness, Quality of Parenting Style, and Psychological Wellbeing

In order to explore the moderating influence of the quality of maternal and paternal parenting style on the relationship between shyness and psychological adjustment, a series of hierarchical regression analyses were conducted, separately for the early and late adolescents groups.

The independent variables were included in the regression equation in three consecutive steps. In Step 1 the shyness score was entered. In Step 2 the moderating variables relative to the quality of parenting style (in relation to the maternal bond in the first instance and to the paternal bond in the second), were entered. The two-way interactions between shyness and the moderating variables (the multiplicative products of the standard scores, shyness x quality of maternal style and shyness x quality of paternal style) were entered in Step 3.

Significant interactions between the predictor (the shyness score) and the moderating variables are represented graphically. Moreover, in order to examine the significance

of each slope, simple slope analyses were conducted utilizing *post-hoc* regressions [49].

Preliminary analyses. Conceptually, we were interested in creating a multisource assessment aggregate of parenting style. To verify the possibility to use a single measure of parenting style and to obtain a single score for the quality of the maternal and paternal style to include in the regression equation, a series of factorial analyses with the three dimensions of the PBI were conducted pre-emptively, separately for the mother and father versions, and for the early and late adolescent groups. A factorial analysis was conducted for the mother version in the early adolescent group, for the mother version in the late adolescent group, for the father version in the early adolescent group, and finally for the father version in the late adolescent group.

The correlation analyses between the three dimensions of the mother and father PBI versions in relation to the early adolescent and late adolescent groups (see Table 4) showed that the overprotection dimension correlated negatively with the care and autonomy dimensions, for both the maternal and paternal bond, in both the early and late adolescent groups. For this reason, the overprotection score was reversed before factorial analyses were conducted, in order to obtain saturations of the same mark on the hypothetical common factor.

If a single factor emerged from the factorial analyses, it would be characterized by warm and affectionate parental behaviours as well as attitudes that encouraged autonomy in child development and that sought to obstruct their children activities and private space as little as possible. A higher score on this dimension would be associated with a positive and supportive parenting style whereby the parent is perceived by the child as being emotionally present, someone who respects his or her sentiments and private life, who help him or her in his or her development, and who proves to be helpful and minimally intrusive. Given these supportive parenting characteristics, a factor of this kind could be named *Supportive style*.

Results from factor analyses indicated that the three dimensions of the mother and father PBI versions all loaded onto a single factor.

In relation to the mother version, care, encouragement

Table 4. Intercorrelations among the major variables in early adolescent group (below) and in late adolescent group (above).

	1	2	3	4	5	6	7	8
1. Shyness	-	-.07	-.23**	.16**	-.18**	-.19**	.21**	.49**
2. Maternal Care	-.21**	-	.38**	-.41**	.33**	.14**	-.19**	-.23**
3. Maternal Autonomy	-.23**	.36**	-	-.43**	.07	.55**	-.23**	-.29**
4. Maternal Overprotection	.24**	-.48**	-.36**	-	-.22**	-.20**	.43**	.34**
5. Paternal Care	-.26**	.47**	.17**	-.29**	-	.29**	-.31**	-.19**
6. Paternal Autonomy	-.24**	.21**	.59**	-.29**	.34**	-	-.40**	-.23**
7. Paternal Overprotection	.25**	-.27**	-.25**	.47**	-.40**	-.38**	-	.24**
8. Internalizing problems	.43**	-.41**	-.37**	.48**	-.35**	-.32**	.34**	-

toward autonomy, and low overprotection levels accounted for 60.15% of the total variance in early adolescents, and for 60.54% in the late adolescent group. Moreover, the three dimensions' loadings for care, encouragement toward autonomy, and low overprotection were .70, .52, and .69, in the early adolescent group and .60, .63, and .69, in the late adolescent group, respectively. The factor that was named *maternal supportive style* showed good internal consistency in both groups (Cronbach's alpha was .66 for the early adolescent group and .64 for the late adolescent group).

Instead, in relation to the father version, the three PBI dimensions (with the reversed overprotection dimension scores) accounted for 58.28% of the total variance in the early adolescent group and for 56.59% in the late adolescent group. For the factor that was named *paternal supportive style* the saturations were all statistically significant, showing saturation values of .61, .57, and .66 for the early adolescents

and of .39, .50, and .70 for the late adolescents in relation to care, autonomy, and reversed overprotection dimensions, respectively.

Moderating analyses. The results of the hierarchical regression analysis regarding the moderating role of the maternal supportive style on the relationship between shyness ($M = 33.89$; $SD = 8.21$) and internalizing problems ($M = 13.74$; $SD = 9.14$) for the early adolescent sample are displayed in Table 5.

As shown in the table, in the early adolescent group, there was a significant interaction between the shyness and maternal supportive style variables. The moderating variable emerged acting as a *buffer* moderator on the relationship between shyness and internalizing problems. In fact, shyness was more strongly associated with internalizing problems at lower levels of maternal supportive style. This relationship is

Table 5. Hierarchical regression analysis results for maternal supportive style as a predictor of Internalizing problems.

EARLY ADOLESCENTS

	standardised β	T	p	R ²	ΔR^2
Shyness	.31	7.84	<.001	.19	-
Maternal Supportive Style	-.43	-10.92	<.001	.39	.20
Shyness X Maternal Supportive Style	-.19	-4.92	<.001	.43	.04

LATE ADOLESCENTS

	standardised β	T	p	R ²	ΔR^2
Shyness	.42	10.08	<.001	.24	-
Maternal Supportive Style	-.31	-7.36	<.001	.32	.08
Shyness X Maternal Supportive Style	-.15	-3.57	<.001	.34	.02

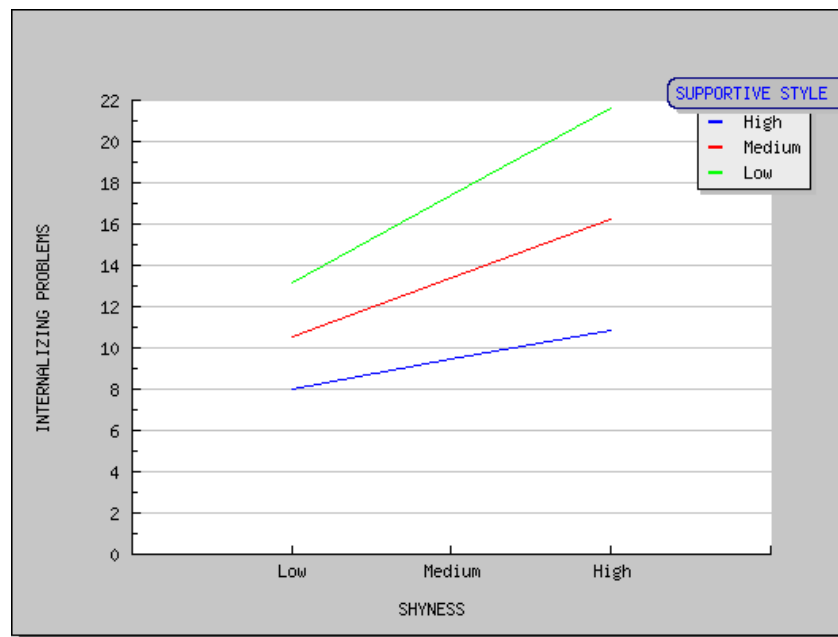


Fig. (1). Interaction between shyness and maternal supportive style in the prediction of internalizing problems in the early adolescent sample.

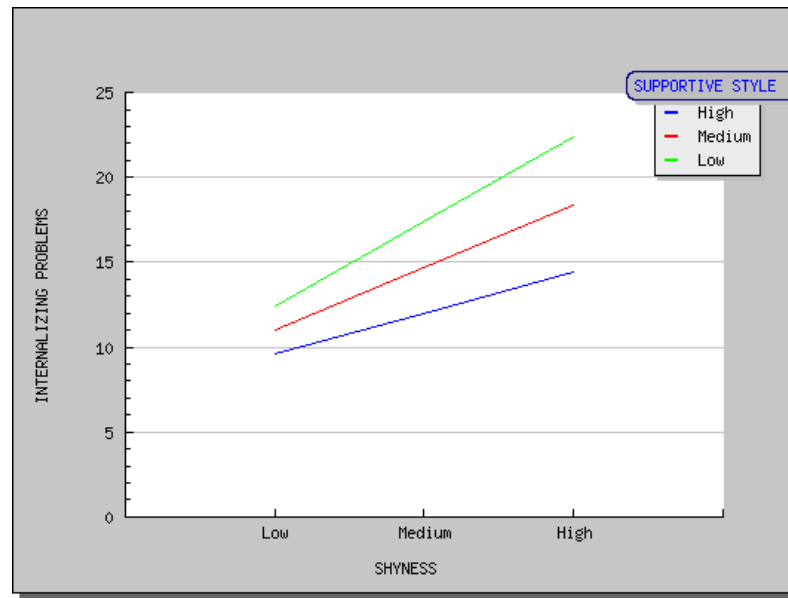


Fig. (2). Interaction between shyness and maternal supportive style in the prediction of internalizing problems in the late adolescent sample.

displayed in Fig. (1).

Post-hoc analyses indicated that the relationship between shyness and maternal supportive style was significant and positive when maternal supportive style was low, standardised $\beta=.63$, $t(57)=6.08$, $p<.001$, and medium, standardised $\beta=.33$, $t(287)=5.84$, $p<.001$. On the contrary, the relationship was non-significant when maternal supportive style was high, standardised $\beta=.27$, $t(47)=1.95$, ns .

Even in the late adolescent sample, the hierarchical regression analysis revealed the significant moderating effect of the maternal supportive style variable on the relationship between shyness ($M = 31.84$; $SD = 8.22$) and internalizing problems ($M = 14.91$; $SD = 8.66$) (see Table 5).

Moreover, the results showed a pattern that was consistent with that of a *buffering* process. As indicated in Fig. (2), shyness was more strongly related to internalizing

problems when there were lower levels of maternal supportive style.

Results of the post hoc simple slope regression equations indicated that the relationship between shyness and internalizing problems was significant and positive when maternal supportive style was low, standardised $\beta=.54$, $t(58)=4.90$, $p<.001$, medium, standardised $\beta=.47$, $t(269)=8.82$, $p<.001$, and high, standardised $\beta=.42$, $t(57)=3.52$, $p<.01$.

Table 6 shows the results of the hierarchical regression analysis which was performed to analyse the moderating role of paternal supportive style on internalizing problem levels.

Also in this case, in early adolescent group significant interaction was found between shyness and paternal supportive style for Internalizing problems. As indicated graphically in Fig. (3), the paternal supportive style variable appears to act as a *buffer* moderator on the relationship

Table 6. Hierarchical regression analysis results for paternal *Supportive style* as a predictor of internalizing problems.

EARLY ADOLESCENTS

	standardised β	T	p	R ²	ΔR^2
Shyness	.33	7.69	<.001	.19	-
Paternal Supportive Style	-.30	-6.96	<.001	.28	.09
Shyness X Paternal Supportive Style	-.20	-4.79	<.001	.32	.04

LATE ADOLESCENTS

	standardised β	T	p	R ²	ΔR^2
Shyness	.45	10.11	<.001	.24	-
Paternal Supportive Style	-.15	-3.44	<.01	.26	.02
Shyness X Paternal Supportive Style	-.05	-1.12	ns	.26	.00

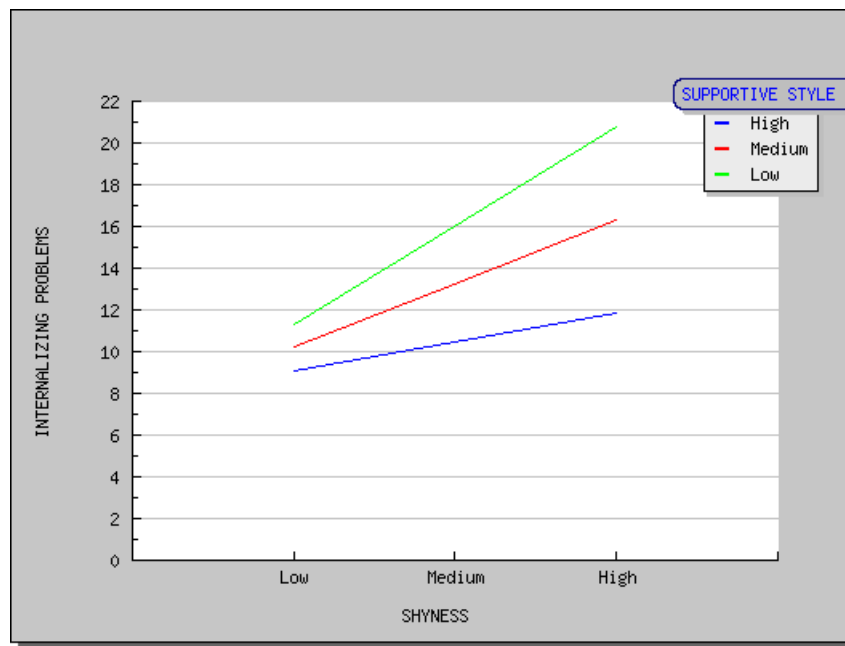


Fig. (3). Interaction between shyness and paternal supportive style in the prediction of internalizing problems in the early adolescent sample.

between shyness and internalizing problems. Once more, shyness was more strongly related to internalizing problems at lower levels of a paternal supportive style.

Post-hoc analysis showed that the relationship between shyness and paternal supportive style was significant and positive when paternal supportive style was low, standardised $\beta=.48$, $t(51)=3.95$, $p<.001$, and medium, standardised $\beta=.36$, $t(290)=6.66$, $p<.001$, and non-significant when paternal supportive style was high, standardised $\beta=.27$, $t(50)=1.95$, ns .

On the contrary, there was no significant interaction between the predictor and moderator variables in the prediction of internalizing problems in the late adolescent group (see Table 6).

DISCUSSION

The goals of this study were to examine shy adolescents' bond with their parents in terms of parenting style and to explore the moderating role of the quality of parenting style in the relationship between shyness and psychological adjustment.

In relation to the first goal, results are consistent with our hypothesis: shy youths perceive both their mother and father to be less warm and close, and less encouraging of their independence. Shy participants also report greater levels of overprotection from both parents than other participants do.

Overall, our findings are in line with results of previous studies conducted during childhood. These indicate that parents of shy children tend to behave in a restrictive and controlling way, also when their offspring becomes older. Although longitudinal studies are needed to test this possibility, it may be hypothesized that, since the parents know about their children's difficulties, they may continue to believe that the best thing to do for their offspring wellbeing

is to continue to behave in a restricting and controlling manner also during their children's adolescence in order to protect and help them.

No significant differences emerged in relation to age or gender of shy participants. Regardless the level of shyness, our findings confirmed that, compared to late adolescents, early adolescents perceived parenting style as characterized not only by greater warmth and closeness but also by greater psychological control that limited the autonomy and independence of the child [50, 51]. These results may depend on the experiences typical of late adolescence: the transition from high school to the environment of work or university, increasing peer- and couple-oriented socialization [41]. These experiences inevitably require more independence from parents leading to greater autonomy of the adolescents. For this reason they may perceive an increased independence and a decreased sense of intrusiveness of their parents.

The second aim of this study was to investigate the moderating role of the quality of perceived parenting style in the relationship between shyness and psychological adjustment. In line with our hypothesis, it emerged that the quality of the maternal parenting style was a significant moderator in the groups of both the early and late adolescents. In fact, participants that perceived their mothers as supportive and not intrusive showed less internalizing problems related to shyness. This result is consistent with findings from studies conducted during infancy, which have highlighted that shy children with less intrusive and warmer mothers have less psychological problems than shy children with intrusive and not supportive mothers [37].

The existence of a maternal parenting style characterized by affection and emotional support can help shy adolescents to develop strong trust in him/herself and in his/her capacities, limiting the tendency to experience internalizing problems, such as anxiety, depression, psychosomatic

disorders, and social withdrawal. Our study showed that these results vary by age. In late adolescence shyness is always a significant predictor of internalizing problems and maternal supportive style acts as a moderator that can reduce the incidence of such problems. On the contrary, in early adolescence a supportive maternal style can cancel the relationship between shyness and internalizing problems. In other words, shy early adolescents who perceived mother parenting style to be highly supportive and warm do not report significant levels of internalizing problems.

In relation to paternal parenting style, the protective role of this variable was only significant for early adolescence. Also in this case, the more the father was perceived as warm, supportive and interested in encouraging the child's independence, the less shy participants demonstrated internalizing problems. On the contrary, the relationship between shyness and internalizing problems was not affected by the quality of paternal parenting style.

These findings may be a function of the different role parents assume in children's life during development. During childhood and early adolescence, parents constitute the main point of reference for children and, consequently, they represent the most important figures of their lives. This would explain why during early adolescence both parents affected the psychological adjustment of their shy children.

On the contrary, during late adolescence other kinds of relationships, such as friendships or romantic relationships, could have a stronger effect on the adjustment of shy youths. These close relationships could decrease the protective role played by the mother's parenting style and even completely cancel the protective role played by father's parenting style.

It cannot be excluded that these results could be affected by the specific cultural context in which data were collected. In Italian middle-class families adolescents have stronger family bonds and they attribute greater importance to family support and emotional affection, compared with other cultures [41, 52].

In any case, the present study is the first to investigate the moderating role of parenting style of both parents on the relationship between shyness and psychological adjustment during adolescence. Results appear show the importance for shy adolescents, especially in early-adolescence, to perceive an appropriate parenting style from their parents. In fact, results showed that the psychological negative outcomes related to shyness could be moderated by a supportive parenting style. Nevertheless, further studies would be needed replicating the results.

There are a number of limitations of the current study that should be noted, and the findings of this report must be interpreted according to such limitations.

First, all data are participants self-report. Despite some authors have highlighted that individual's perception represents a source of primary importance to understand the quality of relationship itself [53], in order to further deepen the knowledge on this important topic, the use of a multi-method approach to integrate the subjective point of view with other source of external information, such as maternal and paternal reports, or observational measures would be appropriate.

Second, the cross-sectional nature of the data does not allow a deep understanding of changes in parenting style aspects investigated during this time period, as it would be possible with longitudinal researches.

Almost all the participant came from the Florence metropolitan area, attended high school and belonged to family with high educational level typical of the middle class. Therefore, these data could be influenced by the selection bias. Further studies in different geographical area and with participants belonging to different socio-economic levels are needed.

Despite such limitations and the awareness that the present study represents only a first step toward an understanding of the role that the parenting style plays in influencing the wellbeing of shy adolescents, the obtained results suggest that it would be valuable to continue further investigations on this topic.

To conclude, since shyness is a relevant risk factor for the psychological and social wellbeing of the individual during childhood and adolescence, further replication of the results would strengthen the importance that should be attributed to parenting style. From a translational point of view, the data could be applied to inform intervention practices for parents of shy children. The possibility to "educate" parents of shy children on the crucial role played by their parenting style on their children's wellbeing and to teach them alternative strategies to behave with their children or strengthen their positive practices could constitute a significant protective factor. In fact, experiencing less insecurity, anxiety and social withdrawal could prove fundamental for the healthy development of the shy child, especially in the critical developmental phase of adolescence.

CONFLICT OF INTEREST

The authors confirm that this article content has no conflict of interest.

ACKNOWLEDGEMENTS

Declared none.

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Received: February 05, 2014

Revised: May 29, 2014

Accepted: May 31, 2014

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