

Depressive Symptoms and Achievement Goals: Parental Rejection as a Moderator

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Abstract

This present study investigated the longitudinal relations between depressive symptoms and achievement goals and whether maternal and paternal rejection moderated these relations. A sample of 436 early adolescents ($\bar{X}_{age} = 13.19$, 58.33% girls) filled in scales measuring the depressive symptoms (Time 1), parental rejection (Time 2; 1 year later), and achievement goals (Time 2). Early adolescents' depressive symptoms were positively related to performance-avoidance goals and negatively related to mastery and performance-approach goals. Furthermore, the father's rejection was positively related to the adolescents' performance-avoidance and negatively related to mastery goals, whereas maternal rejection was not related to achievement goals. Finally, maternal rejection moderated the association between depressive symptoms and performance-avoidance goals 1 year later. The implications of these results for future studies and educational practices are discussed.

Keywords

depressive symptoms, maternal rejection, paternal rejection, achievement goals, longitudinal design

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In recent years, accumulating empirical evidence has shown that adolescents' subjective well-being, academic achievement, and motivation are reciprocally related (Elliot, Eder, & Harmon-Jones, 2013; Ng, Huebner, & Hills, 2015). An important line of research in the field of academic motivation is represented by the achievement goals theory, referring to students' general tendencies for approaching academic tasks and evaluating their performance in achievement contexts (Pintrich, 2000). As achievement goals are important determinants of a wide range of educational outcomes (e.g., persistence in academic tasks, engaging in future tasks, using effective cognitive processing strategies), greater attention should be devoted to factors that lead students to adopt different types of goals (Elliot & McGregor, 2001; Tuominen-Soini, Salmela-Aro, & Niemivirta, 2008). Among the most studied antecedents of achievement goals are students' cognitive characteristics, like implicit motives, implicit theories of intelligence, and perceived competence (e.g., (Diaconu-Gherasim, Tepordei, Mairean, & Rusu, 2018; Elliot & McGregor, 2001). Of particular interest for the present paper, the role of affective factors has been quite neglected. This study extends the literature by evaluating the contribution of depressive symptoms to later achievement goal orientations in a sample of Romanians in the early stages of adolescence. Moreover, parental practices were taken into account, given their important role in shaping achievement goals of adolescents (Diaconu-Gherasim & Mairean, 2016; Luo, Aye, Hogan, Kaur, & Chan, 2013). Specifically, we addressed the link of parental rejection and specific types of goals and whether parental rejection moderated the relation between depressive symptoms and achievement goals.

The period of early adolescence is marked by developmental changes manifested through a decline of student engagement in school activities as well as interest and intrinsic motivation (see Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006, for review). A decline was also observed for all types of achievement goals (Anderman & Midgley, 1997; Shim, Ryan, & Anderson, 2008). These changes may be explained by the developmental transition at this age, when social activities become more attractive and enjoyable, compared with academic activities that become less interesting and useful (Eccles et al., 1989; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991). Moreover, early adolescents reported increased rates of depression (see Hankin, 2015 for a review; Roeser, Eccles, & Sameroff, 1998). Given these important developmental changes, we sought to explore the relation between depressive symptoms and achievement motivation in a sample of Romanians in the early stages of adolescence.

Depressive Symptoms and Achievement Goals

Theoretical models of depression—for example, the resource allocation hypothesis (Ellis, Ashbrook, Fiedler, & Forgas, 1988), the affective interference hypothesis (Siegle, Steinhauer, Thase, Stenger, & Carter, 2002)—tried to explain the associations between depressive symptoms and deficits in cognitive functioning, such as difficulties in concentrating, distractibility, impairments in memory, and so on (see Gotlib & Joormann, 2010, for a review). Cognitive capacity is reduced in individuals with depression, due to involvement in irrelevant emotional processing tasks, and as a consequence, these individuals have deficits in engaging in effortful cognitive processes (e.g., Siegle et al., 2002). Moreover, depressed individuals present cognitive biases in all aspects of information processing (e.g., memory, interpretation, perception, attention; Mathews & MacLeod, 2005). Based on these theoretical frameworks, several studies confirmed the association of depressive symptoms with low engagement in school activities and academic performance (see Huang, 2015, for a meta-analysis).

It was suggested that the impact of depression on task performance is due to the fact that depression reduces motivation and goal-directed attention, especially when circumstances allow for task-irrelevant thoughts (e.g., the impaired motivation hypothesis; Scheurich et al., 2008). The achievement goal theory is one of the dominant frameworks for investigating student achievement motivation (Harackiewicz, Durik, Barron, Linnenbrink-Garcia, & Tauer, 2008). Initially, a distinction was made between mastery and performance goals (Dweck, 1986). Later, a trichotomous theory was proposed by dividing the performance goals into approach and avoidance orientations (Elliot & Church, 1997). In the present study, we used this model which distinguishes between mastery (an emphasis on learning, deepening understanding, and enhancement), a performance-approach (focused on the demonstration of competence relative to others by trying to outperform relevant others), and performance-avoidance goals (focused on avoidance by looking incompetent and being outperformed by others; Elliot, 2005).

Several theoretical frameworks (e.g., theory of achievement motivation, Elliot et al., 2013; motivational systems theory, Ford, 1992; asymmetrical bidirectional model of achievement goals and affect, Linnenbrink & Pintrich, 2002) highlighted the potential relation between emotions and achievement goals. Thus, it was suggested that, that approach to motivation can be related to positive emotions, while avoidance motivation can be related to negative emotional experiences (see Elliot & McGregor, 2001; Meyer & Turner, 2006 for reviews). Emotional states, including a depressive state, can contribute to the tendency of adopting specific achievement goals through the fact that

they can influence selective attention, decision making, and problem solving in a learning environment (Ford, 1992). Moreover, emotional states may determine the way students perceive their classroom environment as well as their personal resources and competencies, which further determine the tendency to adopt certain types of goals. Specifically, students with positive affective states perceive the classroom environment as more supportive and themselves as competent, having sufficient resources to approach academic goals; consequently, they may be oriented through approach achievement goals. However, students with negative affective states may focus on their own emotional experiences, with limited attention oriented toward classroom environment. They also perceive themselves as less competent; thus, they may try to avoid unwanted academic outcomes (see Elliot et al., 2013; Linnenbrink & Pintrich, 2002, for review).

Previous empirical studies show that positive affect and general indices of well-being (e.g., positive school-related affect, good impulse control, or positive peer relationships) were associated with increased mastery goals on samples of early adolescents (Kaplan & Maehr, 1999; Linnenbrink, 2005; Seifert, 1995; Turner, Thorpe, & Meyer, 1998). Furthermore, the subjective well-being in school (i.e., high level of positive affect and low level of negative affect) was negatively related with performance-avoidance goals and positively linked to performance-approach goals in middle school students (Tian, Yu, & Huebner, 2017).

The relation between negative indicators of subjective well-being, like depressive symptoms and achievement goals, was less explored in samples of early adolescents, and the results are less consistent. Thus, in some studies, a negative affect was positively related to performance-approach goals (Kaplan & Maehr, 1999; Turner et al., 1998), whereas in other studies the relations of negative affect and depression with performance-approach goals were insignificant (Linnenbrink, 2005; Seifert, 1995; Sideridis, 2005). Furthermore, people who experience negative affect and depression are more likely to frame their goals in terms of avoidance (see Street, 2002, for a review). This relation could be explained by the fact that individuals with negative affects are more oriented toward ego protection, not toward learning and self-development (see Meyer & Turner, 2006, for review). Regarding mastery goals, some studies have shown that these goals correlate negatively with depression (e.g., Sideridis, 2005; see Street, 2002, for a review), but other evidence has shown that negative affect are not related to mastery goals (Linnenbrink, 2005; Seifert, 1995; Turner et al., 1998).

It is important to note that the literature concerning the direction of the relation between negative indicators of subjective well-being and achievement goal orientations is scarce, and the results are contradictory. Some

cross-sectional studies suggest that emotional states (e.g., depression, anxiety) may be outcomes of goal attainment (e.g., Ames, 1992; Dykman, 1998). However, there is empirical evidence for the model in which emotions (i.e., positive and negative) were predictive of goal orientation but not for the model in which goals were predictive of emotions on a sample of early adolescents (Seifert, 1995). A study conducted by Daniels et al. (2008) investigated the link between negative affect and achievement goals over time, and the results indicated that high school adolescents who adopt performance goals displayed a maladaptive emotional profile characterized by less enjoyment and more anxiety 1 year later. Another longitudinal study by Daniels et al. (2009), conducted on first year university students, showed that a positive antecedent state (i.e., hopefulness) positively predicted both mastery and performance-approach goals, whereas negative affective antecedents (i.e., helplessness) negatively predicted mastery goal adoption. As far as we know, no previous study analyzed the longitudinal relation between depressive symptoms and achievement goals, among early adolescents. The longitudinal designs will help to clarify the direction of the relation between depressive symptoms and achievement goals. To enhance the literature, the first aim of this present study is to assess how depressive symptoms influence the adoption of certain achievement goals, 1 year later.

Parental Rejection and Achievement Goals

According to the parental acceptance–rejection theory, the cognitive and emotional development of children and adolescents, regardless of their culture, ethnicity, race, gender, or socioeconomic status, varies as a direct result of their maternal and paternal acceptance or rejection (Khaleque & Rohner, 2002; Rohner, Khaleque, & Cournoyer, 2005). Parental rejection is defined as a cluster of parents' behaviors (e.g., withdrawal of feelings and behaviors, physically and psychologically hurtful behaviors and emotions) associated with disapproval of the child and with the child's belief that his or her parents are not concerned about them (Muris, Schmidt, Lambrichs, & Meesters, 2001). On the contrary, parental acceptance refers to the warmth, affection, care, support, and concern for the children's needs (Haskett, Nears, Ward, & McPherson, 2006; Schaefer, 1965). Children need acceptance from parents, and when this need is not met satisfactorily, they tend to be hostile, impaired in self-esteem, emotionally unresponsive, and emotionally unstable (see also Khaleque & Rohner, 2002). Not only does parental rejection create negative self-perception, but it also creates a negative world view, with implications regarding the way situations and the behavior of others are interpreted (see

Khaleque & Rohner, 2002, for a review). On the contrary, being accepted by parents and perceiving love, care, and warmth is related to higher self-esteem, social competence, and lower rates of depression (Rohner & Britner, 2002). The association between perceived acceptance–rejection and psychological adjustment (lack of internalizing and externalizing problems) is likely to be stronger among early adolescents, who continue to be influenced by their parents' behavior, although at this age, the importance of other attachment figures (i.e., peers) increases (Buehler, 2006). Previous work showed that parental behavior is more strongly related to early adolescents' functioning (low levels of externalizing and internalizing problems) than peer behavior, and being rejected by their primary attachment figures, the parents, is more detrimental for adolescents' adjustment than being rejected by peers (Sentse, Lindenberg, Omvlee, Ormel, & Veenstra, 2010).

An orientation toward approach or avoidance goals may also derive from parent–child interaction patterns, with negative parenting engendering an avoidance orientation, whereas a supportive, accepting parenting engendering an approach orientation (Dykman, 1998). In the field of achievement motivation, there is some empirical evidence showing that parental rejection (or low acceptance) is related to adolescents' achievement goals. Overall, the findings show that parental rejection (or low acceptance/warmth) is negatively associated with mastery and performance-approach goals (Diaconu-Gherasim & Măirean, 2016; Gonzalez, Holbein, & Quilter, 2002; Luo et al., 2013) but unrelated to performance-avoidance goals, in samples of older adolescents (Boon, 2007; Diaconu-Gherasim & Măirean, 2016). It is important to note that no previous study assessed these relations in samples of early adolescents. The period of early adolescence is of particular importance for studying the environmental factors associated with achievement motivation, given the fact that the parental rejection of children's need for autonomy implies an increase in performance-avoidance goals and a decrease in mastery goals (Gutman & Eccles, 2007). Moreover, during early adolescence, parents are perceived as less supportive (Furman & Buhrmester, 1992), and these changes in perception of parental support could explain the fluctuation of achievement goals.

Most previous studies that analyzed the relationships between parental rejection (low acceptance) and children's emotional and intellectual functioning focused on the mother's behavior. However, there is evidence for the fact that paternal rejection (or low acceptance) often plays an equal role just as maternal rejection in cognitive and affective development of early adolescents, as well as in maintaining health and well-being (Rohner & Veneziano, 2001; Veneziano, 2003). For example, a study conducted in nine countries showed that maternal and paternal rejection (low acceptance) have roughly

equal effects on different areas of child adjustment, including affective (e.g., internalizing problems) and intellectual functioning and competence (e.g., school performance, social competence; Putnick et al., 2015). Another line of research showed that mothers and fathers can have different roles in shaping children's beliefs and behaviors (Kerns & Stevens, 1996; Tulviste & Rohner, 2010). The mother's behavior, based on acceptance and warm relations, fulfills the primary need for affection, while the father figure has been linked to greater intellectual functioning, enhanced self-concept and improved academic success (DuBois, Eitel, & Felner, 1994; Wagner & Phillips, 1992). The studies conducted with the Romanian samples of early adolescents suggest that mothers may influence a child's adjustment (i.e., depressive symptoms) primarily by assuming a nurturing role, whereas the father's influence may be rooted in the level of parental control and discipline (Diaconu-Gherasim, Bucci, Giuseppone, & Brumariu, 2017). These results were explained by the fact that fathers interact less often with their children, and the interactions are frequently around instrumental goals (e.g., school achievement; Collins & Russell, 1991). Moreover, acceptance by the father is more conditioned by academic success than the mothers' acceptance. And, an adolescent may be more eager to obtain the father's acceptance rather than that of the mother, as the father's acceptance is less available (Forehand & Nousiainen, 1993).

Although mothers can play a more important role in affective development, there is empirical evidence showing that mothers directly involved with their child's education contributed to better academic interests and engagement in school activities, operationalized through the number of absences from school activities (Dotterer, McHale, & Crouter, 2009; DuBois et al., 1994). In addition, one study showed that the contribution of paternal acceptance toward a child's adjustment is available only when maternal acceptance has occurred at a high level, suggesting that paternal acceptance does not compensate for a lack of maternal acceptance (Forehand & Nousiainen, 1993).

Because most previous studies focused on parental practices and achievement motivation, without differentiating between the mothers' and the fathers' behaviors, more studies are needed regarding the potentially different role of mothers' and fathers' rejection in the outcome of various children and adolescents. Moreover, the specific relation between the mothers' and the fathers' rejection and achievement goals had not been addressed before in the literature, therefore, the second goal of the present study is to assess how parental rejection is associated with achievement goals and whether these relations are different when independently studying mothers' and fathers' behaviors.

The Moderating Role of Parental Rejection

Previous literature consistently showed that positive indicators of subjective well-being (e.g., positive affect, positive school-related affect, or subjective well-being in school) were linked with increased mastery and performance-approach goals and low performance-avoidance goals (e.g., Linnenbrink, 2005; Tian et al., 2017; Turner et al., 1998). The findings concerning the relation between negative indicators of subjective well-being (e.g., negative affect, depressive symptoms, or anxiety) and achievement goals were less consistent. Furthermore, the possible contextual factors that could explain these findings were unexplored. However, the literature highlights the role of social environment (e.g., parents' behaviors) in developing the students' achievement motivation (Deci & Ryan, 2008). When effective parenting, based on acceptance (low rejection), is maintained for children with depressive symptoms, it might serve as a protective factor, buffering children against the impact of depression on later achievement motivation. On the contrary, early adolescents feeling rejected by their parents are at risk for depression and its negative consequences (Khaleque & Rohner, 2002). Studies conducted with Romanian samples of early adolescents showed that depressive symptoms are associated with both maternal and paternal rejection (Gherasim, Brumariu, & Alim, 2017). The co-occurrence of depressive symptoms and parental rejection may have further implications for early adolescents' school functioning.

Previous studies identified the buffering effects of parental warmth for the relation between risk factors (e.g., stressful life events, maternal depression, single parent) and academic outcomes (e.g., reading and mathematics skills, academic readiness, academic achievement) among early elementary school children (Burchinal, Roberts, Zeisel, Hennon, & Hooper, 2006; Ruberry, Klein, Kiff, Thompson, & Lengua, 2017) and middle school children (Gutman, Sameroff, & Eccles, 2002). Specifically, the negative associations between risk and academic outcomes were substantially weaker when children had more accepting parents. However, we found no previous study about the buffering effects of a parent's acceptance for the relation between adolescents' depressive symptoms and achievement motivation. To advance the literature, this study investigated whether the impact of depressive symptoms on achievement goals could be dependent on the maternal and paternal rejection. Based on previous literature (Diaconu-Gherasim & Măirean, 2016; Gonzalez et al., 2002; Luo et al., 2013), we anticipate that depressive symptoms will predispose the early adolescents to avoidance goals and will decrease the likelihood of pursuing mastery and performance-approach goals, especially when a

high level of parental rejection is also reported. On the contrary, when parental rejection is at a low level, the relation between depressive symptoms and avoidance goals will not be as strong. The differential role of the mothers' and the fathers' rejection will be explored. Based on previous literature regarding the more important role of the father in a child's intellectual functioning (e.g., Wagner & Phillips, 1992), we anticipate that the fathers' rejection will manifest a stronger relation to early adolescents' achievement goals, compared with the mothers' rejection.

Studying the relation between parental rejection and depressive symptoms in a sample of Romanians in early adolescence is of particular importance given the cultural differences between Western and non-Western countries, including Romania. Previous literature documented that adolescents and young adults from Western countries scored lower on depression and manifested decreased overall life satisfaction than non-Western counterparts (Oishi, Diener, Lucas, & Suh, 2009; Okazaki & Kallivayalil, 2002; Park & Huebner, 2005; see Tov & Diener, 2009, for reviews). These differences may be explained by a level of distress generated by political instability, economic, psychological, and social changes during the transition from communism to a free market economy (Robila & Krishnakumar, 2006). Parental style and parent-child interaction may also be conditioned by traditional cultural differences. Eastern European countries, including Romania, value hierarchy manifested through obedience toward adults in charge, including parents as well as traditional roles specific to more collectivistic cultures, whereas Western societies value autonomy and egalitarianism (Schwartz, 2006). Given the potential differences, both in depressive symptoms and the perceived parental rearing style between Western and non-Western societies and given the fact that the majority of previous research was conducted in Western countries (see Gherasim et al., 2017 for an exception), we consider it necessary to bring further evidence for the relations and implications of these constructs in samples of non-Western early stage adolescents.

Method

Participants

Invitation letters describing the study were sent to the families of seventh-grade students ($n = 550$). Approximately, 83.27% ($n = 458$) of the initially contacted families granted permission for their child to voluntarily participate in this study, and 95.19% ($n = 436$) early adolescents ($n = 231$ girls, $\bar{X}_{\text{age}} = 13.19$ years, $SD = 0.56$, age range: 12-15 years) participated

in the Time 1 session. Of these early adolescents, 90.82% ($n = 396$) completed the data for the second wave of the study 1 year later, at the end of the first semester of the eighth grade (Time 2). Most of the participants reported intact family status (83.7 %) and 16.3% indicated nonintact families (divorced, separated, widowed) at Time 1. The participants' mothers included those who had not completed high school (25.5%), held a secondary education certificate (45.3%), or a college degree (29.2%). The early adolescents' fathers included those who had not completed high school (23.5%), held a secondary education certificate (45.9%), or a college degree (28.6%).

Procedure

The participants were recruited from local schools from a metropolitan area in the Eastern region of Romania after permission for the study was obtained from the local authorities and schools. Early adolescents filled out questionnaires measuring their depressive symptoms at the end of the first semester of the seventh grade (Time 1). In order to check for the initial level of the early adolescents' initial achievement goals on their subsequent achievement goals, achievement goals were also measured at Time 1. Early adolescents reported their perceptions of parental rejection and achievement goal scales at Time 2. The participants were rated only for one parent, when they lived only with their mother (6.63%) or their father (0.46%). Research assistants collected all the data at the schools in groups averaging 20-25 children during regular school days. The early stage adolescents were informed about the confidentiality of their responses.

Measures

Depressive symptoms. The early adolescents' depressive symptoms were measured using an adapted Romanian version (Butnaru, Gherasim, Iacob, & Amariei, 2010) of *Children's Depression Inventory* (CDI; Kovacs, 1985). The questionnaire scale contains 27 items that measure cognitive, affective, and behavioral symptoms of depression in children and adolescents (e.g., 0 = *I have plenty of friends, and I do not feel sad*; 1 = *I have some friends, but I wish I had more*; 2 = *I do not have any friends*). Each item consists of three statements graded in the order of increasing severity from 0 to 2. The participants selected one sentence from each group that best described them over the past 2 weeks. The total score was computed by summing individual item scores, higher scores indicating more severe depressive symptoms. The alpha coefficient in this sample was .86 (a similar value was reported previously on

a sample of Romanian early stage adolescents by Butnaru et al., 2010). The scale demonstrated good test–retest reliability and consistent associations with other scales measuring childhood depression (e.g., Abela, McGirr, & Skitch, 2007).

Perception of parental rejection. Early adolescents reported their perceptions of rejection, separately from mothers and fathers. For each parent, they completed a 16-item scale from the Revised Children's Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965) adapted for Romanian samples by Butnaru et al. (2010), assessing parents' acceptance (e.g., *The mother/father almost always speaks to me in a warm and friendly voice*) and acceptance of individuation (e.g., *He or she allows to choose my own way of doing things*). We selected these scales because previous studies demonstrated the factorial validity of these scales in an acceptance (vs. rejection) dimension (Butnaru et al., 2010; Diaconu-Gherasim & Măirean, 2016). Early adolescents rated their mothers' and fathers' behaviors separately on a 3-point scale, ranging from 1 (*like*) to 3 (*dislike*). Consistent with previous literature, the two subscales for the mother and father forms were significantly associated ($r = .69$ and $.69$, respectively, all $ps < .01$). We computed the average scores across scales for mothers and fathers, with a higher score indicating that early stage adolescents view their mothers or fathers as more rejecting ($\alpha = .86$ and $\alpha = .85$, respectively). The CRPBI has excellent psychometric properties on Romanian samples of adolescents ($\alpha = .86$; Diaconu-Gherasim & Măirean, 2016).

Achievement goals. Early adolescents completed the Patterns of Adaptive Learning Survey (15-items; PALS; Middleton & Midgley, 1997), adapted into Romanian by Gherasim, Butnaru, and Mairean (2013). This scale measured three types of goal orientations: performance-approach (5 items; e.g., *I'd like to show my teachers that I am smarter than the other students in my class*), performance-avoidance (6 items; e.g., *The reason I do homework is so the teachers won't think I know less than the others*), and mastery (approach) goals (5 items; e.g., *An important reason I do my homework is because I like to learn new things*), on a 5-point scale (1 = *not at all true*; 5 = *very true*). The exploratory factor analysis previously confirmed the three-factor structure of the scale, and that factor structure was very similar to the structure of the original scale (Gherasim et al., 2013). In our sample, Cronbach's alpha coefficients were acceptable, ranging from .71 to .74 at Time 1 and from .67 to .74 at Time 2, respectively. Similar values were previously reported on samples of Romanian early stage adolescents (e.g., the alpha ranged between .72 and .77; Diaconu-Gherasim et al., 2018). The composite mean scores

were calculated for each subscale. Studies have shown that the PALS relates to measures of early adolescents' achievement and intrinsic motivation (e.g., Tas, 2016).

Results

Overview

First, the preliminary analyses were conducted to assess whether demographic variables are related to early adolescents' achievement goals. Because the students were nested within the schools, intraclass correlations (ICCs) were used to determine whether there were between-classroom variances in the outcomes (Peugh, 2010). Next, we explored the nature of the sample depletion by comparing the participants with missing data with the sample of complete data sets, using the missing values analysis (Little & Rubin, 2014). We found no systematic differences in any investigated variable, age or gender, $\chi^2(34) = 20.31, p = .972$. Second, zero-order correlations among the main study variables were computed. A pairwise comparison was used because some children had data missing on the mother's rejection scale (9.6%), the father's rejection (15.8%), and PALS (9.2%) scales from Time 2. These missing cases were due to early stage adolescents who lived only with their mother (6.63%) or father (0.46%), or because they were missing the day of testing, changed schools, or did not respond to these questions as they chose to stop participating. Third, to estimate the moderation, we used a structural equation model framework in AMOS Graphics 22 (Arbuckle, 2011). The adequate fit between the specified model and the observed data was evaluated using a normed chi-square (χ^2 model/*df*) that should be ≤ 5 (Bollen, 1989), the comparative fit index (CFI) that should be $\geq .95$, Tucker–Lewis Index (TLI) that should be $> .95$, and the root mean square error of approximation (RMSEA) that should be $< .06$ (Hu & Bentler, 1999). The full information maximum likelihood (FIML) method in the path analyses was used as a technique to address the missing data (Enders & Bandalos, 2001).

Preliminary Analyses

The data were examined for “nested” data structures (e.g., children nested within schools and classes) following the steps outlined by Peugh (2010). The ICC indicated that there was no significant variability between schools (ICCs $< 0.03, ps > .05$), suggesting that data from all four schools could be combined for the primary analyses.

Table 1. Means, Standard Deviations, and Minimum and Maximum Values of the Main Study Variables.

Variables	<i>n</i>	\bar{X}	<i>SD</i>	Minimum	Maximum
1. Depressive symptoms <i>Time 1</i>	436	12.60	7.97	0	46
2. performance-approach goals <i>Time 1</i>	436	3.56	0.86	1.20	5.00
3. performance-avoidance goals <i>Time 1</i>	436	2.75	0.85	1.00	5.00
4. Mastery goals <i>Time 1</i>	436	3.57	0.85	1.00	5.00
5. Mother rejection <i>Time 2</i>	394	1.54	1.64	1.00	2.94
6. Father rejection <i>Time 2</i>	367	1.64	0.37	1.00	3.00
7. performance-approach goals <i>Time 2</i>	396	3.56	0.83	1.00	5.00
8. performance-avoidance goals <i>Time 2</i>	396	2.75	0.78	1.17	5.00
9. Mastery goals <i>Time 2</i>	396	3.59	0.83	1.40	5.00

Descriptive statistics for the main variables are presented in Table 1. We conducted preliminary analyses to investigate whether demographic variables (the participants' gender and age, maternal/paternal education, and marital status) were related to the children's achievement goals. The early adolescents' age, maternal/paternal education were not significantly related to the achievement goals, $rs < .09$, all $ps > .05$. The independent sample t tests indicated no significant parental marital status differences in achievement goals, $t(394) < 1.48$, $ps > .05$. Furthermore, we found significant gender differences in performance-avoidance and mastery goals, $t(394) = 2.93$ and 3.60 , respectively, all $ps < .01$. Girls reported lower levels of performance-avoidance goals, $\bar{X} (SD) = 2.64 (0.79)$ and higher levels of mastery goals, $\bar{X} (SD) = 3.73 (0.8)$, compared with boys, $\bar{X} (SD) = 2.87 (0.75)$ and $\bar{X} (SD) = 3.43 (0.83)$, respectively. In addition, the independent sample t tests indicated no significant differences in perceptions of maternal, $t(392) = .17$, $p = .86$) and paternal rejection, $t(365) = .46$, $p = .64$, among the adolescents who reported intact family status and those indicating nonintact families (divorced, separated, widowed). The correlational analyses were conducted, controlling for the participants' gender. Because the results did not change significantly, we reported the correlational analyses without controlling for gender.

As expected, performance-approach goals at Time 1 were significantly positive, associated with performance-approach and mastery goals at Time 2, $rs = -.32$ and $.10$, respectively, $ps > .05$ but not with performance-avoidance goals, $r = .08$, $p > .05$. In addition, performance-avoidance goals at Time 1 significantly positive correlated with performance-avoidance goals and negative mastery goals at Time 2, $rs = .22$ and $-.10$, respectively, $ps < .05$ and did

not significantly correlate with performance-approach goals, $r = .06$, $p > .05$). Mastery goals at Time 1 were significantly positive, correlated with performance-approach and mastery goals at Time 2, $r_s = .13$ and $.33$, respectively, $ps < .001$. Thus, we controlled for early achievement goals in the main path analyses. Zero-order correlations among the main variables are presented in Table 2.

Associations of Depressive Symptoms, Parental Rejection, and Early Adolescent Achievement Goals

Early adolescents who reported high levels of depressive symptoms also reported lower levels of performance-approach and mastery goals, $r_s = -.20$ and $-.24$, respectively, $ps < .001$ but a higher level of performance-avoidance goals, $r = .12$, $p < .01$ (see Table 2). Early stage adolescents who rated their mothers or their fathers as more rejecting (or less accepting) also reported higher levels of performance-avoidance goals, $r_s = .14$ and $.15$, respectively, $ps < .01$ and lower levels of mastery goals, $r_s = -.24$ and $-.22$, respectively, $ps < .001$ (see Table 2). Furthermore, early stage adolescents who rated their mothers as more rejecting also reported lower levels of performance-approach goals, $r = -.10$, $p < .05$.

Testing for Direct Effects and Moderation

We simultaneously tested the main effects of depressive symptoms and parenting styles on achievement goals as well as the moderated role of parenting strategies. Early achievement goals and gender were included as verification variables because of their significant relation with early stage adolescent achievement goals. We created interaction terms of depressive symptoms, including the mothers' and fathers' rejection to test the moderation effect on achievement goals over time (at Time 2). We also included covariances among the variables in the model (e.g., covariances between maternal and paternal rejection with initial achievement goals and gender), but we did not represent them in the figure due to the complexity of the model. The fit indices for the model indicated a very good fit: $\chi^2(20) = 31.89$, $p = .04$; $\chi^2/df = 1.59$; normed fit index (NFI) = .95; CFI = .98; RMSEA = .04, 95% confidence interval (CI) = [.006, .060]. Standardized path coefficients are presented in Figure 1. The model explained 14.6% of the variance in performance-approach, 7.2% of the variance in performance-avoidance, and 17.2% of the variance in mastery goals.

Depressive symptoms measured at Time 1 positively predicted performance-avoidance goals and negatively predicted performance-approach and

Table 2. Zero-Order Correlations Among the Main Study Variables, $n = 396$.

	1	2	3	4	5	6	7	8
1. Depressive symptoms <i>Time 1</i>								
2. Performances approach goals <i>Time 1</i>	-.09							
3. Performances avoidance goals <i>Time 1</i>	.15**	.34***						
4. Mastery goals <i>Time 1</i>	-.25***	.27***	-.03					
5. Mother rejection <i>Time 2</i>	.31***	-.14**	.10*	-.28***				
6. Father rejection <i>Time 2</i>	.18**	-.11*	.08	-.17**	.41***			
7. Performances approach goals <i>Time 2</i>	-.20***	.32***	.07	.14**	-.10*	.09		
8. Performances avoidance goals <i>Time 2</i>	.12**	.09	.22***	.02	.14**	.15**	.31***	
9. Mastery goals <i>Time 2</i>	-.24***	.11**	-.10*	.34***	-.24***	-.22***	.32***	-.02

* $p < .05$. ** $p < .01$. *** $p < .001$.

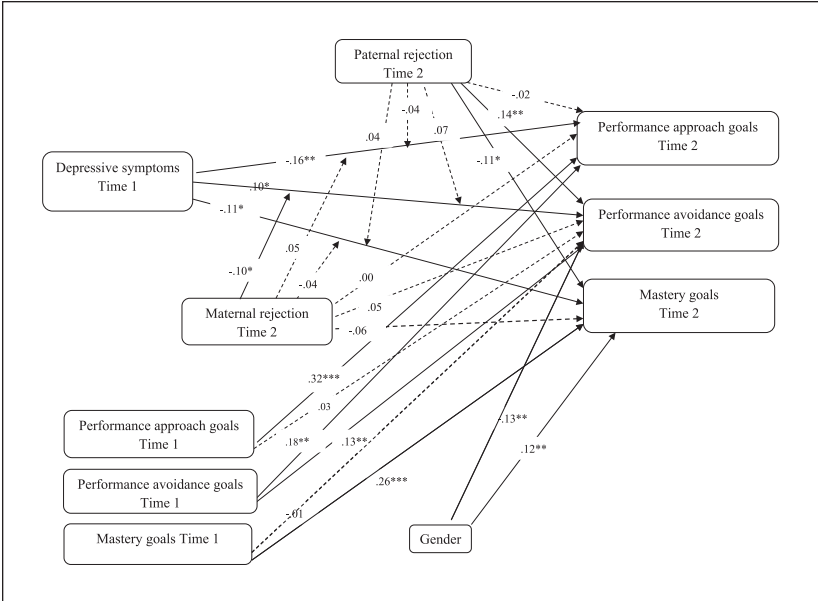


Figure 1. Structural equation model and path analysis of the relation between depressive symptoms and achievement goals, moderated by mother and father rejection strategy ($n = 436$).
Note. Standardized path coefficients reported.
 $*p < .05$. $**p < .01$. $***p < .001$.

mastery (approach) goals at Time 2. Paternal rejection negatively predicted the mastery goals and positively predicted performance-avoidance goals. Furthermore, the adolescents' perception of the mothers' rejection moderated the association between depressive symptoms measured at Time 1 and performance-avoidance goals measured at Time 2. In order to interpret the interaction term, we used Dawson's (2014) method of graphically displaying the interaction (see Figure 2). Early stage adolescents with high levels of depressive symptoms reported more performance-avoidance goals when they perceived high levels of maternal rejection. However, when the level of rejection by the mother was low, more avoidance goals were reported by the participants with low depressive symptoms. The simple slope analysis indicated that the simple slope for low (value of slope = 2.89, $p < .01$) and high (value of slope = 4.71, $p < .001$) levels of maternal rejection is significantly different from zero (Dawson, 2014). Regarding the control variables, gender was positively significantly related to adolescents' mastery goals and negatively

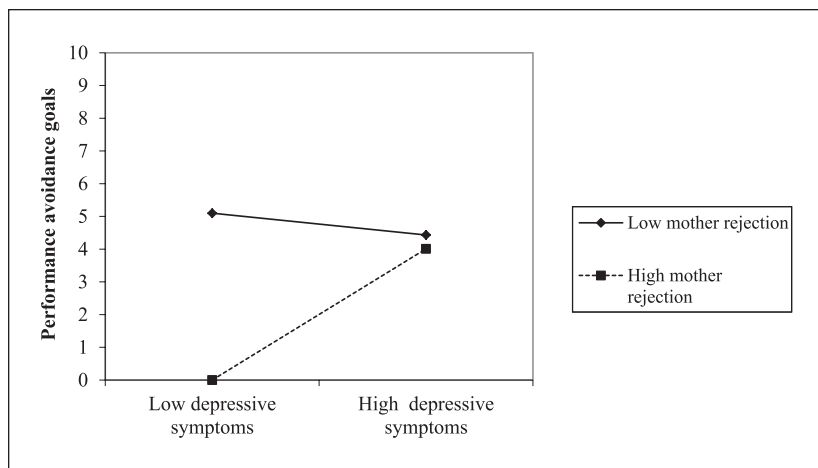


Figure 2. Performance-avoidance goals as a function of depressive symptoms and maternal rejection.

significantly related to performance-avoidance (Time 2). Previous performance-approach goals (Time 1) were positively significantly associated with performance-approach goals at Time 2; performance-avoidance goals were positively significantly associated with performance-avoidance (Time 2), whereas mastery goals (Time 1) were positively significantly associated with mastery goals at Time 2.

Discussions

This study extends the literature by assessing how depressive symptoms are related to achievement goals over time in a sample of Romanians in the early stages of adolescence. This study also advances the previous research investigating the contribution of both maternal and paternal rejection to achievement goals and whether the parents' rejection might moderate the relation between depressive symptoms and achievement goals.

In line with previous literature (Sideridis, 2005; Street, 2002), depressive symptoms were positively related to performance-avoidance goals and negatively related to performance and mastery approach goals, measured 1 year later. The results of path analysis, when the effects of other variables are taken into account, indicate that depressive symptoms positively predict the performance-avoidance goals and negative performance-approach as well as mastery goals. The negative relations between depressive symptoms and

performance-approach and mastery goals are consistent with previous findings that also showed that people who experience symptoms of depression manifest a low tendency to adopt these types of achievement goals (e.g., Sideridis, 2005; see Street, 2002, for a review). These findings are also consistent with previous literature emphasizing that depressive symptoms and avoidance goals share some common characteristics, like feelings of lower self-esteem or a perceived inability to attain valued goals (Dykman, 1998) and difficulties to avoid failure (Emmons & Kaiser, 1996).

Furthermore, early adolescents who rated their mothers as more rejecting also reported lower levels of performance-approach goals. Moreover, early adolescents, rating their mothers or their fathers as more rejecting, reported greater performance-avoidance goals and lower mastery goals. Concerning performance-avoidance goals, although previous studies reported an insignificant relation with parental rejection, among older adolescents (Boon, 2007; Diaconu-Gherasim & Măirean, 2016), we found a positive relation among these variables in a sample of early adolescents. However, our results support previous studies that also found that parental rejection was negatively associated with performance-approach goals and mastery approach goals among high school students (Diaconu-Gherasim & Măirean, 2016; Luo et al., 2013). However, the results of a path analysis, including maternal and paternal rejection simultaneously and the effects of other variables (e.g., gender) which were taken into account, indicate that the fathers' rejection has a unique contribution to adolescent performance-avoidance and mastery goals, whereas maternal rejection does not. Thus, when paternal rejection increases, the adolescents' tendency to adopt performance-avoidance goals also increases, but their tendency to adopt mastery goals decreases. These results complement the previous literature that supports the important role of the fathers' rejection for early adolescent intellectual functioning and competence (Putnick et al., 2015) and also extend previous findings showing that fathers' rejection can determine the early adolescents' tendency to adopt specific types of achievement goals. The fact that only the fathers' rejection predicted achievement goals may be explained by the documented primary role of the father to influence academic outcomes (DuBois et al., 1994). These results may also be explained by the traditional role of the father in Romanian society, associated with a more active role in society including more academic and professional success. Thus, early adolescents may rely more on the attachment figure of the father when approaching their school activities and adopting specific achievement goals. The lack of supportiveness that occurs in the father–adolescent relationship may orient the children through less efficient achievement goals. Different parental practices, which influence children's

achievement goal orientations (e.g., parental control vs. autonomy), deserve attention in future studies, in interaction with parental rejection. Other explanations regarding the role of a father's rejection, rather than a mother's rejection, when it comes to predicting adolescent functioning in school, rely on the fact that fathers' acceptance (low rejection) is more conditioned by outcomes obtained outside the home (Forehand & Nousiainen, 1993). Thus, children may be more motivated to master the content of the curriculum and to prove their competencies, in order to obtain the fathers' acceptance.

Despite theoretical links between depressive symptoms and achievement goals, overall, the question of what factors may influence these associations has received little attention in the literature. Thus, we evaluated whether parental rejection may moderate these relations. Our results showed that only the mothers' rejection moderated the association between early adolescent depressive symptoms and their performance-avoidance goals 1 year later. Specifically, early stage adolescents with a high level of depressive symptoms reported more performance-avoidance goals compared with the adolescents with a low level of depressive symptoms when they also perceived higher maternal rejection. However, an inverse relation between depressive symptoms and performance-avoidance goals was observed, when the level of rejection by the mother was low, although the relation was much weaker. In this situation, more avoidance goals were reported by the participants with low depressive symptoms. Therefore, the perception of the mothers' rejection as high is a risk factor for avoidance goals, only when the level of depressive symptoms is high. The tendency to adopt more avoidance goals, even when depressive symptoms are low and the perception of the mothers' rejection is low, may be explained by the developmental characteristics at this age, when the interest in academic activities and achievement motivation decreases (see Wigfield et al., 2006, for review). However, this pattern of results is not found when the early stage adolescents perceive a high level of their mothers' rejection, even if their depressive symptoms are low. In this situation, early adolescents may be more motivated to obtain acceptance from other attachment figures (e.g., father, teachers, peers), thus they will not engage in performance-avoidance goals. However, this need to obtain acceptance from others may not be present among early adolescents with a high rate of depressive symptoms. As a consequence, performance-avoidance goals may become more salient because these goals hinder the situations when an adolescent could prove his or her perceived lack of competency generated by a depressive state and the mother's rejection. The role of other sources of support when confronting depressive states in early adolescence, like peers or teachers and their

interaction with depressive symptomatology in predicting achievement goals, should be considered in future studies. Moreover, possible mediators that may explain the tendency of early adolescents to interpret parental behaviors rather in terms of rejection, then acceptance (e.g., negative perception and suspiciousness about others' behavioral intentions) or the tendency to primarily choose achievement goals (e.g., low self-esteem, perceived lack of competencies) should be addressed in future studies.

Several limitations of this present study should be noted. First, our results were based on early adolescent self-reports, and considering that self-reports can lead to common method variance issues, future research using multiple methods of assessment should be conducted. It is also possible that the perception of parental rejection (e.g., my mother/father does not speak to me in a warm and friendly voice, are not able to make me to feel better when I am upset) might be exacerbated by a high level of depressive symptoms. Thus, the level of perceived parental rejection may not be an objective indicator of parental behaviors. Second, this study investigated only the role of depressive symptoms as a negative indicator of subjective well-being. Taking into account, simultaneously, the contribution of both negative and positive indicators of subjective well-being would help to improve our understanding of the affective determinants of achievement goals among early adolescents. Third, we used the trichotomous theory of achievement goals that did not distinguish between mastery approach and mastery avoidance goals. Given the important and differential role of achievement goals in academic outcomes, we suggest that future research include the distinction between mastery approach and mastery avoidance goals in relation to positive and negative indices of subjective well-being. Finally, we relied on a longitudinal design with a 1-year time interval between assessments; however, longitudinal studies with more time points of evaluation would be required to clarify potential bidirectional effects between depressive symptoms and achievement goals. Moreover, depressive symptoms may be an effect of parental rejection, if parental rejection is also present at Time 1. The fact that parental behavior was measured at Time 2 did not allow us to reject this alternative explanation. Thus, the bidirectional nature of the association between the two variables should also be addressed in future studies.

Despite the limitations presented above, our study suggests practical and theoretical implications related to the antecedents of achievement goals. The longitudinal design of the study allows us to affirm that these depressive symptoms can lead to more avoidance achievement goals and fewer approach (performance and mastery) goals; therefore, reasonable efforts should be made by school professionals to promote early stage adolescents' subjective well-being, through analyzing and preventing the

occurrence of depressive symptoms. Interventions designed to reduce depressive symptoms decrease the probability of avoidance achievement goals' adoption and increase the probability of approach achievement goals. In addition, the importance of parental acceptance should be highlighted during regular meetings between parents and school professionals, where usually the mother rather than the father is the represented parent in the Romanian school context. In light of these results, teachers and school representatives should aim to increase the role of fathers in school activities of their early stage adolescents. An important step in implementing strategies to reduce depressive symptoms and improving students' motivation is to be aware of the relationships between the students' affective experiences and achievement goals, as highlighted by the findings of the present study. From a theoretical point of view, our study adds to the previous literature about depressive symptoms and achievement goals but brings further evidence about this relation in a sample of early adolescents. Moreover, the similar and differential role of maternal and paternal rejection in achievement goals was highlighted. Thus, we extended the previous literature by studying the associations of both the mothers' and the fathers' rejection separately with the achievement goals. Future research should continue to consider the relation between subjective well-being and achievement goals in early adolescence, focusing on different affective antecedents and multiple achievement goals. Moreover, the mechanisms that link these constructs should be incorporated into future studies.

In summary, our results advance the literature by showing that depressive symptoms have implications on early stage adolescent achievement goals. Furthermore, maternal rejection has moderated the relations between depressive symptoms and performance-avoidance goals. Future longitudinal studies with more data points will help us understand the direction of the relation between depressive symptoms and achievement goals and to clarify potential bidirectional effects. Moreover, the role of other parental practices that may explain the relations between early adolescent depressive symptoms and achievement goals should be evaluated in future studies.

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