

Mothers' parenting practices and adolescents' learning from their mistakes in class: The mediating role of adolescent's self-disclosure

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Abstract

This study examined 126 students' (14–16 years of age; 66 females) perceptions of self-disclosure to their mothers with respect to their mistakes in class activities. Specifically, we hypothesized that self-disclosure would predict adolescents' ability to learn from mistakes they made in classroom tasks. In addition, we hypothesized that perceived mothers' love withdrawal would correlate negatively with adolescents' self-disclosure, whereas perceived autonomy support would correlate positively with self-disclosure. Further, we hypothesized that the effect of mothers' parenting practices on adolescents' ability to learn from their mistakes would be mediated by adolescents' self-disclosure of their school experiences. Results, using SEM analyses, showed the importance of mothers' autonomy support for adolescents' self-disclosure and learning from their mistakes in classroom tasks.

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1. Introduction

The important role of the parent–child relationship in children's adaptation to school has been emphasized by many researchers (Cawan, Cowan, Ablow, Johnson, & Measelle, 2005; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Grolnick & Ryan, 1989; Grolnick, Ryan, & Deci, 1991; Parsons, Adler, & Kaczala, 1982; Thompson, 2004). Research has mainly focused on parental practices such as warmth, responsiveness, involvement (Grolnick & Ryan, 1989; MacCoby & Martin, 1983; Mattanah, 2001; Puustinen, Lyyra, Metsapelto, & Pulkkinen, 2008), structure (Grolnick, Deci, & Ryan, 1997), and autonomy support (Assor, Kaplan, & Roth, 2002; Grolnick et al., 1991; Roth, Assor, Kanat-Maymon, & Kaplan, 2007; Soenens & Vansteenkiste, 2005).

In the last few years, research on parenting has emphasized the role of parental knowledge of adolescents' whereabouts

and the role of adolescents' voluntary self-disclosure for externalizing problem behaviors (Fletcher, Steinberg, & Williams-Wheeler, 2004; Kerr & Stattin, 2000; Soenens, Vansteenkiste, Luyckx, & Goossens, 2006; Stattin & Kerr, 2000). While emphasizing the importance of children's self-disclosure and parental knowledge, researchers rejected the notion of parental direct control of adolescents' behavior as an effective proactive strategy for parents, because adolescents spend a large portion of their time in places where parents are not present; thus, children's behavior cannot be directly controlled by parents (Stattin & Kerr, 2000; Wells & Rankin, 1988). In line with this argument, Stattin and Kerr (2000) found that adolescents' voluntary self-disclosure was a stronger predictor of parental knowledge and of adolescents' deviant behavior than were parents' active attempts to supervise their children's behavior. Based on this finding, one may claim that parents' behavior is of a secondary importance in explaining the links between parenting and children's deviant behavior.

In a recent study, Soenens et al. (2006) argued that it is premature to conclude that parents have relatively little impact

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on the development of problem behaviors, because parents may protect their children from antisocial behavior by creating a family climate that promotes children's disclosure. This argument was also raised by Fletcher et al. (2004) and by Stattin and Kerr (2000). In a well designed study, Soenens et al. (2006) demonstrated that adolescents' self-disclosure and parental knowledge serve as intervening variables in the associations between parental practices and adolescents' problem behaviors. This research replicated Stattin and Kerr's (2000) findings regarding the important role of children's self-disclosure in predicting parental knowledge.

Up to now, research has not yet explored the associations between self-disclosure and school engagement, despite these concepts' seeming relevance for adolescents' school adaptation, because the parent is not present at school and therefore cannot directly supervise the child's behavior. The present study aimed to shed some light on this association. Specifically, the present study focused on the mediating role of adolescents' self-disclosure concerning their school experiences, in the link between mothers' parenting practices and adolescents' ability to learn from the mistakes they make during classroom activities.

1.1. Family climate and promotion of adolescents' self-disclosure

In line with Kerr and Stattin's (2000) argument that the relational part of parenting may be particularly predictive of adolescents' self-disclosure, Soenens et al. (2006) focused on the links between psychological control and responsiveness to children's self-disclosure. Soenens et al. (2006) found that parental responsiveness and parental structure were positively associated with adolescents' self-disclosure; likewise, through the mediation of adolescents' self-disclosure, these parental indices were associated with fewer problem behaviors. On the other hand, parents' psychological control was found to be negatively related to adolescents' self-disclosure. Thus, the research demonstrated that adolescents' self-disclosure can be predicted by parenting practices.

Soenens et al. (2006) argued that children's self-disclosure is promoted by warm, accepting, and empathic (i.e., responsive) parenting, whereas intrusive parenting such as psychological control that refers to manipulative parenting practices (e.g., guilt induction, shaming, and love withdrawal; Barber, 1996; Barber, Stolz, & Olsen, 2005) inhibits self-disclosure. Thus, the results supported the hypothesis that children of psychologically controlling parents, who expect their parents to respond intrusively when confronted with antisocial behavior, would try to avoid such negative reactions by refraining from voluntary self-disclosure.

Unlike the former studies that focused on adolescents' externalizing problem behaviors, the present study focused on adolescents' academic engagement. We were specifically interested in adolescents' self-disclosure concerning their school experiences and in a positive (adaptive) outcome of that ability to share one's difficulties at school with one's parents, namely, the adolescent's ability to learn from his/her mistakes

in class activities. Hence, following Soenens et al. (2006), we predicted that love withdrawal (one component of psychological control) in relation to the child's failures and lack of investment in school would inhibit the child's self-disclosure, whereas autonomy supportive parenting would promote it.

Assor, Roth, and Deci (2004) found that parental conditional regard, which involves love withdrawal together with its mirror image (i.e., provision of love contingent on children's behavior), predicts children's sense of disapproval by parents, which, in turn, predicts children's resentment toward parents. In a subsequent study, Roth, Assor, Niemiec, Ryan, and Deci (2007) demonstrated that resentment toward parents is predicted primarily by love withdrawal even when controlling for contingent love provision. Thus, it seems reasonable to assume that adolescents who expect their parents to react to academic failures by withdrawing their love (which was shown to be associated with rejection and disapproval) might refrain from disclosure of difficulties at school.

In contrast, we hypothesized that parents' autonomy support may predict adolescents' self-disclosure of school experience. Autonomy supportive parenting has been found to predict positive school outcomes such as academic competence, autonomous motivation, self-regulation, and achievement (Grolnick & Ryan, 1989; Grolnick et al., 1991; Soenens & Vansteenkiste, 2005; Vansteenkiste, Zhou, Lens, & Soenens, 2005). Within self-determination theory (SDT; Deci & Ryan, 2000), autonomy support is defined as an encouragement of integrated internalization, self-initiation, and the promotion of volitional functioning (Roth & Deci, 2008; Vansteenkiste et al., 2005) by taking the child's perspective, validating his or her feelings and thoughts, encouraging choice, and providing meaningful rationale and relevance (Assor et al., 2002; Roth, 2008; Vansteenkiste et al., 2005; for a review, see Grolnick et al., 1997). Although autonomy supportive parenting was found to be related to parental warmth and acceptance, it also showed a unique effect above and beyond parental warmth in relation to children's internalization and behavior (Roth, 2008; Roth, Assor, Kanat-Maymon, et al., 2007; Roth, Assor, Niemiec, et al., 2007). It seems that in relation to adolescents' self-disclosure, the most relevant autonomy supportive behaviors are those in which parents attempt to take the child's perspective and validate his or her feelings. Therefore, the present research focused on these two dimensions of autonomy support.

1.2. Self-disclosure and ability to learn from mistakes in class

Current theory and research in motivation indicate that, although repeated academic failures are clearly undesirable, a temporary failure that results in effective coping is often an important experience that enhances children's motivation, learning, and emotional development (Alfi, Katz, & Assor, 2004). The main obstacles to adaptive coping with temporary failures are likely to be negative feelings that these situations may elicit (Alfi et al., 2004).

In a well designed series of studies, McGregor and Elliot (2005) presented findings supporting the hypothesis that shame is the core emotion of fear of failure. In addition, participants who were high on fear of failure reported that they would be less likely to tell their mother and father about their failures. Thus, it seems reasonable to hypothesize that children's voluntary self-disclosure may predict children's attempts to learn from their own mistakes made during classroom activities, inasmuch as the child feels supported because there is nothing to fear about revealing failures. The ability to share experiences of failures at school with parents is a possible marker for the ability to contain failures and to cope with them without consistent attempts to deny or avoid them. Moreover, the knowledgeable parent may be a possible resource to cope emotionally and functionally with the temporary failure. Furthermore, this open communication and sharing with parents can be transferred by children to their relationships with teachers and other socialization agents, who may also help the child to deal with the temporary difficulty. Thus, the ability to disclose difficulties may be a primary resource for the ability to benefit from social support at times of need.

1.3. Hypotheses

The hypotheses are presented schematically in Fig. 1. Specifically, we hypothesized that the adolescents' perceptions of their mothers as using love withdrawal in response to the adolescents' academic failures would be negatively associated with adolescents' perceptions of voluntary self-disclosure, and with their ability to learn from mistakes made during class activities (Hypothesis 1). Moreover, we hypothesized that the expected negative correlation between perceived maternal love withdrawal and children's attempts to learn from their mistakes in class activities would be mediated by the adolescents' lower self-disclosure (Hypothesis 2).

In contrast, we hypothesized that perceptions of maternal autonomy support in response to the adolescents' academic failures would be positively associated with adolescents' perceptions of voluntary self-disclosure and learning from mistakes (Hypothesis 3). Furthermore, we hypothesized that the expected positive correlation between perceived maternal autonomy support and children's attempts to learn from their

mistakes in class activities would be mediated by the adolescents' higher self-disclosure (Hypothesis 4).

2. Method

2.1. Participants – design

Participants were 126 adolescents (66 girls) from two secondary schools in a midsized Israeli city. Ages ranged from 14 to 16 years, with a mean of 14.77 years ($SD = .44$). All the participants came from intact families, and according to the Israeli Ministry of Education these schools serve middle class and lower-middle class populations.

As was required by the Israeli Ministry of Education, active informed consent was obtained from the adolescents, and passive informed consent was required from parents. The latter procedure entailed parents' receipt of a letter from the researcher providing information about the purposes of the study and its method; parents were asked to complete a form if they did not wish their child to participate in the study. Only 2% of the parents did not allow their children to participate in the study.

The participants completed questionnaires in class in two sessions separated by two weeks. In the first session, participants completed scales involving their perceptions of their mothers' parenting practices (Love withdrawal and autonomy support), and two weeks later they completed the self-disclosure and learning from mistakes scales. The first session lasted about 10 min, and the second session lasted about 20 min. The questionnaires were administered when the teachers were not present in the classroom.

2.2. Measures

All measures were completed by the adolescents, and all items were scored on 6-point Likert-type scales, ranging from 1 (strongly disagree) to 6 (strongly agree).

2.2.1. Perceptions of mothers' love withdrawal

This 5-item measure was based on Assor et al. (2004) and Roth, Assor, Niemiec, et al. (2007) studies. It is important to note that this measure differed from the three love-withdrawal items in Barber et al.'s (2005) measure of general psychological control because the present measure was domain-specific for academic achievement and effort. Items included: "If I do poorly in school my mother will ignore me for a while" and "I often feel that I would lose much of my mother's affection if (or when) I do poorly at school". Cronbach's alpha for the present sample was .90.

2.2.2. Perceptions of mothers' autonomy support

This 4-item measure was adopted in part from Grolnick et al., (1991) and in part from Roth, Assor, Niemiec, et al. (2007) studies. The Grolnick et al. (1991) scale is a general scale, whereas the scale used in the present study specifically reflects children's perceptions of autonomy support toward learning at school. Given the focus of the present study on

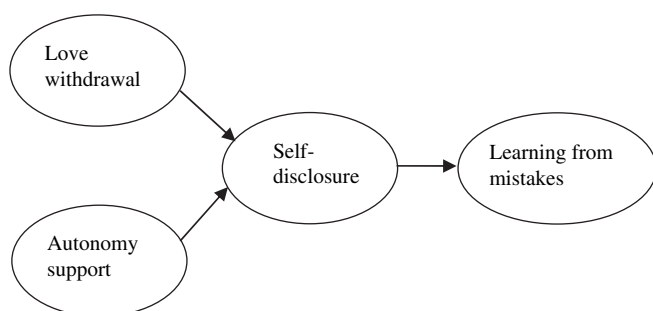


Fig. 1. The hypothesized model: Self-disclosure as mediating variable for the relation between mothers' parenting practices and adolescents' learning from their mistakes in classroom activities.

children's self-disclosure, the measure focused on two autonomy supportive themes: (a) Two items referring to the extent to which the mother takes the respondent's perspective (e.g., "When my mother feels that I am not studying enough she really tries to understand why") and (b) two items referring to the extent to which the mother validates the respondents' perspective (e.g., "My mother understands that there are other things I am interested in besides learning at school"). Cronbach's alpha in the present sample was .74.

2.2.3. Adolescents' self-disclosure

This 5-item scale tapping adolescents' voluntary self-disclosure was based on the general measure developed by Stattin and Kerr (2000) (Kerr & Stattin, 2000), although for the present study we modified the items to specifically tap self-disclosure in relation to school experiences. A sample item read: "I spontaneously tell my mother about difficulties I encounter in class". Cronbach's alpha for the present sample was .87.

2.2.4. Learning from mistakes in class

This 3-item scale was developed for the purpose of the present study and measured the child's attempts to learn from his/her mistakes in class activities. The items were: "Sometimes I go through the mistakes I made in a paper or an exam in order to understand the subject better", "When I am not satisfied with the mark I got in an exam, I ask the teacher to explain where I was wrong, so I can learn from my mistake", and "When I give a wrong answer in class, I follow the lesson carefully in order to understand what my mistake was". Cronbach's alpha for the present sample was .71.

2.2.5. Adolescents' social desirability bias

A 15-item version of Crowne and Marlowe (1964) scale was used to control for participants' tendency to report dishonestly about the sensitive issues examined in this research. A sample item was: "No matter who I am talking to I am always a good listener." Cronbach's alpha for the present sample was .75.

3. Results

Table 1 presents descriptive statistics and Pearson correlations for the study variables. Social Desirability Bias (not presented in the table) was found to be correlated only with Autonomy Support, $r = .18$, $p < .05$; therefore, by using

partial correlations, we controlled for Social Desirability Bias while computing the correlations for Autonomy Support. The table reveals that, as expected, negative correlations emerged between Love Withdrawal and the two outcome variables (Self-Disclosure and Learning from Mistakes), whereas positive correlations emerged between Autonomy Support and the two outcome variables. However, the correlation between Love Withdrawal and Learning from Mistakes was not significant ($p = .09$).

To examine the mediating role of self-disclosure in the link between mothers' parenting practices and children's ability to learn from mistakes, a structural equation modeling (SEM) analysis with latent variables was conducted. First, a measurement model was tested (confirmatory factor analyses using SEM), and then the hypothesized model was examined. Additionally, we compared the hypothesized model to models that include, in addition to the indirect effects, direct effects of the parenting practices on the outcome measures. Each comparison was conducted separately, allowing comparison of nested models.

To test the hypothesized model as presented in Fig. 1, we used AMOS 5.0 (Arbuckle & Wothke, 2003) with maximum likelihood estimation. Latent variables were created by using the items as indicators. To assess the fit of the model to the data, we used the ratio of chi-square to degrees of freedom, incremental fit index (IFI; Bollen, 1989), comparative fit index (CFI; Bentler, 1990), root mean square error of approximation (RMSEA; Browne & Cudeck, 1993), and the standardized root mean square residual (SRMR). Acceptable fit would be indicated by a ratio of χ^2 to df of less than 2 (Carmines & McIver, 1981), a RMSEA less than .08, a SRMR less than .08, and the other fit indices of .90 or above (Browne & Cudeck, 1993; Hoyle, 1995).

First, we tested the fit of the measurement model. The results support the hypothesized factor structure. The fit indices were adequate: $\chi^2(113, N = 126) = 167.55$, $p < .01$; $\chi^2/df = 1.43$; and CFI, IFI, RMSEA, and SRMR of .97, .97, .04, and .04, respectively. Fig. 2 presents the results for the structural model. The results supported, in the main, the hypothesized relations. Most of the path coefficients were significant and in the hypothesized direction. The model showed an acceptable fit to the data: $\chi^2(115, N = 126) = 168.52$, $p < .01$; $\chi^2/df = 1.47$; and CFI, IFI, RMSEA, and SRMR, of .98, .97, .04, and .04, respectively. The correlation between Love Withdrawal and Autonomy Support was added in order to test unique effects of the parental practices.

In the next phase of data analyses, we compared the hypothesized model (in which the relations between mothers' parental practices and learning from mistakes are indirect, that is, mediated by self-disclosure), to two models that included a direct path from each independent variable (the two parental practices, that is, Love Withdrawal and Autonomy Support) to Learning from Mistakes. Each direct path was added separately, allowing us to compare goodness of fit of nested models. Results showed that the direct relations did not improve the model fit: $\Delta\chi^2(1) = .25$ for the comparison with

Table 1
Descriptive statistics and correlations among the study variables.

	M	SD	1	2	3	4
1. Love withdrawal	1.65	.66	–			
2. Autonomy support	4.35	1.08	–.33**	–		
3. Self-disclosure	4.19	1.09	–.20*	.23*	–	
4. Learning from mistakes	4.03	1.04	–.16ns	.18*	.28**	–

* $p < .05$; ** $p < .01$.

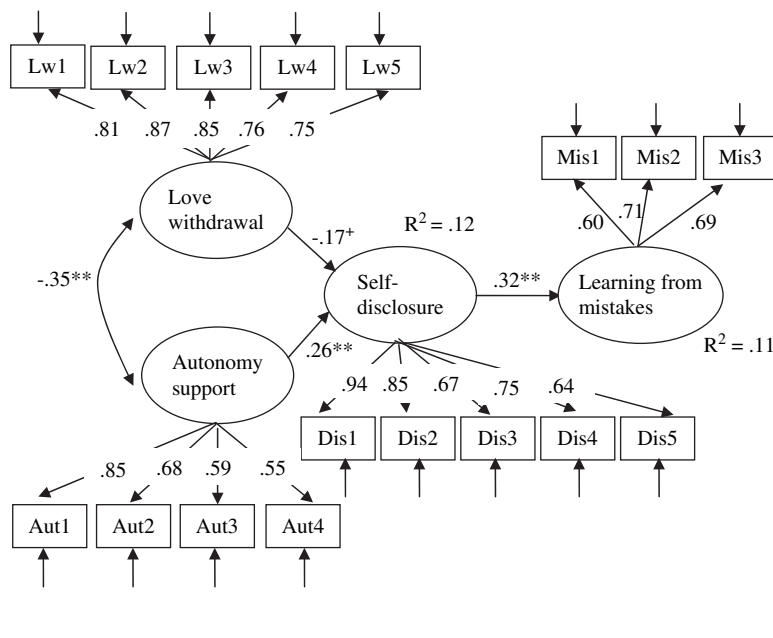


Fig. 2. Standardized path coefficients for the model predicting relations between mothers' parenting practices, adolescents' self-disclosure, and adolescents' learning from their mistakes in classroom activities. ⁺ns; ^{**} $p < .01$. R^2 = Represents the value of the multiple R square of each endogenous variable.

the model that included the direct path from Love Withdrawal to Learning from Mistakes, and $\Delta\chi^2(1) = .43$ for the comparison with the model that included the direct path between Autonomy Support and Learning from Mistakes. Therefore, the hypothesized model that involved only indirect effects was preferred. The final model is presented in Fig. 2. It should be noted that in the final model the path from Love Withdrawal to Self-Disclosure was not significant, $p = .09$.

4. Discussion

The present study revealed three important findings. First, and in line with Hypotheses 2 and 4, self-disclosure is important for learning from mistakes. Second, and as expected in Hypothesis 1, mothers' love withdrawal was found to be negatively related to adolescents' voluntary self-disclosure. Interestingly, and contrary to our prediction in Hypothesis 2, the significant negative correlation between love withdrawal and self-disclosure became nonsignificant (although still negative) while controlling for autonomy support, as was indicated by Fig. 2. Third, unlike love withdrawal, autonomy support was found to be positively and significantly related to learning from mistakes by enhancing self-disclosure. These findings are in line with Hypotheses 3 and 4.

The present results support and extend past findings. The negative relation between love withdrawal and self-disclosure corroborates Soenens et al.'s (2006) results. Interestingly, in Soenens et al. (2006) the relation between psychological control and self-disclosure remained significant while controlling for parents' responsiveness (although the relation was not very strong), whereas in the present study the relation between love withdrawal and self-disclosure became

nonsignificant while controlling for autonomy support. Overall the findings of both studies reveal that positive parenting—i.e., responsiveness in Soenens et al. (2006) study and autonomy support in the present study—is, by far, a stronger predictor of self-disclosure than psychological control or love withdrawal. Following Kerr and Stattin (2000) and Soenens et al. (2006) we examined disclosure and not secrecy. However, previous research has shown that disclosure and secrecy are empirically distinct (Finkenauer, Engels, & Meeus, 2002; Finkenauer, Frijns, Engels, & Kerkhof, 2005). Kerr and Stattin (2000) found that greater disclosure was associated with more positive outcomes, but Finkenauer et al. (2002) found that for adolescents, secrecy (but not disclosure) was associated with poorer relationships with parents, more physical complaints, and more depressed mood. Moreover, adolescents' disclosure and concealment each have unique associations with parenting (Finkenauer et al., 2005). Smetana, Metzger, Gettman, and Campione-Barr (2006) suggest that the two concepts may vary theoretically in the extent to which they may entail acts of omission versus commission. Hence, it might be the case that love withdrawal would predict more secrecy whereas autonomy support predicts more disclosure. Future research may explore these hypotheses.

Furthermore, the positive relation between mothers' autonomy support and children's ability to learn from mistakes in school confirms past research that demonstrated a positive relation between autonomy support and adaptation to school (Grolnick & Ryan, 1989; Grolnick et al., 1991; Soenens & Vansteenkiste, 2005; Vansteenkiste et al., 2005). The present results also extend past findings by focusing for the first time on self-disclosure as specifically linked to the school context and by providing data on the relations of self-disclosure with

a positive outcome such as the adolescent's ability to learn from mistakes, as opposed to negative outcomes such as externalizing problem behaviors.

In the context of school experiences, the importance of adolescents' voluntary self-disclosure to parents cannot be overemphasized, because the parent is not present in school and therefore direct control is impossible. Moreover, research has found that direct control might backfire, especially in relation to child's internalization, behavioral engagement (Grolnick, 2003; Roth, 2008; Roth, Assor, Kanat-Maymon, et al., 2007; Roth, Assor, Niemiec, et al., 2007), and parental knowledge of child's whereabouts (Kerr & Stattin, 2000; Stattin & Kerr, 2000). Thus, antecedents of children's self-disclosure in relation to school experiences are of particular importance. The present study revealed that a mother's attempt to take her child's perspective and to validate the child's experience may contribute to a family climate that promotes children's self-disclosure. Within SDT the notion of autonomy support goes beyond the two dimensions that were examined in the present study, taking the child's perspective and validating the child's experience, and includes providing rationale, choice, self-initiation and encouraging independent thinking (Assor et al., 2002; Grolnick et al., 1997). Future research may shed some light on the relation between other dimensions of autonomy support and children's self-disclosure.

However, it is not known if adolescents' ability to learn from their mistakes in classroom activities by sharing school experiences with a teacher and benefiting from a teacher's help and support may be related to their experiences at home. Thus, in addition to the teacher's behavior as an antecedent of children's disclosure with that teacher, socialization at home could influence children's inclination to share personal experiences with other socialization agents. Future research is clearly needed to explore this hypothesis.

Future research should also investigate the process through which parental psychological control and other intrusive parental practices might inhibit children's self-disclosure, whereas autonomy supportive and responsive parenting may promote it. The lack of statistically significant relationships suggests that love withdrawal by itself as parenting practice is not sufficient to explain lack of self-disclosure. Based on McGregor and Elliot's (2005) findings, we suggest that negative feelings, and specifically the emotion of shame, may mediate the relations between psychological control, self-disclosure, and children's ability to cope with temporary failures in school. Thus, in line with McGregor and Elliot's (2005) findings, it is reasonable to assume that a parental message that a child who fails is unworthy of love and affection (i.e., love withdrawal) might predict feelings of shame in relation to failures, which, in turn, might inhibit the child's willingness to share failures with the parent. Future research should examine the current study variables alongside self-reported feelings of shame.

There are several limitations to the current study. First, the present analyses were based on correlations among cross-sectional self-reports. This is problematic in that it raises the possibility that the relations are in part a function of

method variance. Although controlling for social desirability bias may control in part for shared method variance, and although adolescents' experiences and perceptions of their parents are important antecedents of the adolescents' behavior and well-being, additional studies using multiple reporters and behavioral observations would be very helpful in confirming the present results. Second, the cross-sectional data do not allow causal interpretations. It is therefore important to test the hypotheses with prospective longitudinal research. In addition, future studies should investigate the consequences of the explored parental practices while controlling for parental school involvement because parental involvement is likely to be related to adolescents' school experiences. Finally, the measure that was developed to assess the concept of learning from mistakes is limited; thus, future research would do well to use an elaborated measure.

4.1. Conclusion

In conclusion, the present findings suggest that adolescents' voluntary self-disclosure of their experiences at school is an important determinant of positive school outcomes. Moreover, the present results indicate that perceptions of parental behavior can predict the extent to which adolescents are willing to expose their own school experiences. Thus, parental love withdrawal as a response to children's failure or lack of investment in school inhibits children's self-disclosure and, in turn, children's ability to learn from mistakes in school, whereas parental validation of children's experiences and parents' taking of their children's perspective may predict children's ability to benefit from mistakes by promoting children's voluntary self-disclosure. Parents taking children's perspective and validating their experiences may be essential for sharing difficulties with parents, and as such a good foundation for children's disclosure of their difficulties in school. However, in order to promote children's learning from mistakes it seems reasonable to assume that other parenting practices would also be involved, for example, explaining the sources of mistakes and how they can be overcome. Thus, future research should investigate which of the constituents of autonomy support promote self-disclosure as well as learning from mistakes.

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