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Maternal Acceptance and Adolescents' Emotional Communication: A Longitudinal Study

Amanda L. Hare,
Department of Psychology, University of New England, 11 Hills Beach, Biddeford, ME 04005, USA

Emily G. Marston, and
University of Virginia, Charlottesville, VA, USA

Joseph P. Allen
University of Virginia, Charlottesville, VA, USA

Abstract

With substantive evidence suggesting that adolescents' disclosure is likely a protective factor against problem behaviors, as well as evidence that many adolescents will go to great lengths to *avoid* sharing information with parents, one may conclude that parents' face a formidable task. Previous studies have identified parental acceptance as a concurrent correlate of adolescents' *behavioral* disclosure, but have neglected to investigate potential ways that parents could encourage their adolescents to feel comfortable disclosing *emotional* information. The present study extends the literature by using a longitudinal, multi-method, multi-reporter design to examine whether maternal acceptance is predictive of emotional disclosure *over time* among a racially/socioeconomically diverse sample of 184 adolescents (53% female). Results indicate that adolescents who perceive their mothers as high in acceptance during early adolescence exhibit greater relative increases in both self-reported emotional communication and observed emotional disclosure to their mothers 3 years later. Interestingly, mothers' perceptions of their own acceptance does not provide any additional predictive value. These findings support the notion that adolescents' emotional disclosure is an ongoing process that can be fostered in early adolescence, and emphasize the importance of considering adolescents' perceptions of the relationship to successfully do so.

Keywords

Adolescence; Parenting; Disclosure; Communication; Acceptance

Introduction

A wealth of research has emphasized strong parent-adolescent communication as potentially protective against problem behaviors in adolescence (Barnes et al. 1994; Kafka and London 1991). In fact, recent studies have found that adolescents' willing disclosure is even more effective than parents' use of behavioral control when it comes to protecting children against unwanted outcomes like delinquency, school problems, and deviant friends (Eaton et al. 2009; Kerr and Stattin 2000). Unfortunately, the existing research on the protective role of adolescents' disclosure suggests that if an adolescent is not willing to communicate with

ahare2@une.edu .

parents openly and freely, parents' efforts to monitor their adolescents cannot be effective. This is troubling, especially in the face of research underscoring the great lengths to which adolescents will go just to *avoid* sharing information with their parents (Mazur and Hubbard 2004; Perkins and Turiel 2007). Such findings beg the question, what makes some adolescents more likely to openly communicate with their parents than others? How can parents help their adolescents feel comfortable opening up to them?

Previous findings have highlighted the potential importance of setting a positive tenor to the parent-adolescent relationship, thus encouraging adolescents to feel comfortable coming to their parents to discuss personal issues. For example, young adolescents' perceptions of their mothers' trustworthiness and availability have been associated with greater concurrent levels of adolescents' reported frequency of communication between parent and child (Guilamo-Ramos et al. 2006). Similarly, greater perceived parental acceptance has been associated with greater concurrent levels of adolescents' reported disclosure (Smetana et al. 2006). While these studies have been limited by cross-sectional methodology, one longitudinal investigation revealed an association between rejection sensitivity (which includes the perceived likelihood of being rejected *rather than accepted*) and subsequent adolescent-reports of attachment to parents (which includes perceived parent-adolescent *communication*) 2 years later (Ho 2004). Clearly, further longitudinal inquiry is necessary to better understand the relationship between maternal acceptance and adolescent disclosure over time.

Additionally, researchers have primarily focused on *behavioral* disclosure (i.e., adolescents sharing information about their everyday activities and whereabouts), rarely giving any attention to adolescents' *emotional* disclosure. Does the association between maternal acceptance and adolescent disclosure extend to disclosure regarding emotional issues? This question is especially relevant during adolescence when so many emotionally charged issues, such as budding romantic relationships, have the potential to become particularly problematic. One study, conducted by Criss et al. (2003), suggested that the link does extend to the emotional domain, indicating a positive correlation between parent–child positive "synchrony" (i.e., observed "harmony, reciprocity, responsiveness, interconnectedness, engagement, mutual focus, and shared affect"; p. 384) and concurrent parent–child emotional openness. Yet the relationship between maternal acceptance and adolescents' emotional disclosure over time remains unstudied.

Importantly, the reliance on cross-sectional designs to date precludes conclusions regarding the potentially lasting impact of parenting behaviors on adolescent-parent communication. For example, it is possible that maternal acceptance and adolescent disclosure are only concurrently related, and that the effects of maternal acceptance are not lasting. It is also possible that disclosure precedes acceptance, rather than the other way around. That is, perhaps adolescents who are open with their parents in turn develop warmer relationships. These constructs must be assessed longitudinally in order to examine this association more closely and draw more meaningful conclusions.

Furthermore, the reliance of existing research on parents' self-reports of parenting behaviors as well as adolescents' self-reports of disclosure introduces a critical confound as well. Adolescents who seek acceptance from their parents, for example, might be most likely to *report* open communication and willing disclosure (e.g., to report what their parents would value). Furthermore, existing research suggests that individuals' predictions of what they would do in a given situation (e.g., how much information they would disclose to their parents) are not entirely accurate (Vazire and Mehl 2008), and thus unbiased observations likely provide a better representation of actual adolescent disclosure. It is only by assessing

relationship qualities and interactions with more independent methods that we can begin to move beyond these confounds.

Hypotheses

We aim to implement a longitudinal, multi-method, multireporter design to shed new light on the specific tactics parents can use to successfully encourage open emotional communication with their children later in adolescence. Specifically, we expect that higher levels of parental acceptance will be predictive of greater relative increases in adolescents' *self-reported* emotional communication over time, thus extending the existing research which reveals a concurrent association between these two constructs. Furthermore, we expect that higher levels of parental acceptance will be predictive of greater relative increases in *observed* emotional disclosure to their mothers over time as well, building on the primarily self-report methodologies utilized to date. The possibility of bidirectional relationships among these constructs will also be examined.

Method

Participants

This report is drawn from a larger longitudinal investigation of adolescent social development in familial and peer contexts. Participants included 184 seventh and eighth graders (M age = 13.36, SD = 0.66; 86 males and 98 females) and their mothers. The sample was racially/ethnically and socioeconomically diverse: Of the participants, 58% identified themselves as Caucasian, 29% as African American, and 13% as being from other or mixed ethnic groups. Adolescents' mothers reported a median family income in the $40,000–$59,999 range (18% of the sample reported annual family income less than $20,000, and 33% reported annual family income greater than $60,000). At the second wave of data collection, approximately 3 year after the first, data were obtained for 139 (76%) of the original 184 adolescents.

Formal attrition analyses revealed no differences between adolescents who did versus did not continue to participate in data collection at age 16 on gender, mothers' self-reports of acceptance, adolescents' reports of communication, or observed adolescent disclosure. Adolescents who did versus did not continue to participate in data collection at age 16 did, however, differ on age, income, and adolescents' reports of maternal acceptance. More specifically, the 24% of adolescents who did not continue to participate in data collection at age 16 were older, had lower income, and reported lower levels of maternal acceptance than did the remainder of the sample at age 13.

Adolescents were recruited from the seventh and eighth grades at a single public middle school drawing from suburban and urban populations in the MidAtlantic United States. One cohort of eighth graders was included, and two different cohorts of seventh graders were included in successive years. The school was part of a system in which students had been together as an intact group since fifth grade. Students were recruited through an initial mailing to all parents of students in the school along with follow-up contact efforts at school lunches. Families of adolescents who indicated they were interested in the study were contacted by telephone. Of all students eligible for participation, 63% agreed to participate. All participants provided informed assent before each interview session, and parents provided informed consent. Interviews took place in private offices within a university academic building. Parents and adolescents were paid for their participation.

Procedure

In the initial introduction and throughout both sessions, confidentiality was assured to all participants, and adolescents were told that their parents would not be informed of any of the answers they provided. Participants' data were protected by a Confidentiality Certificate issued by the US Department of Health and Human Services, which protected information from subpoena by federal, state, and local courts. Transportation and child care were provided if necessary.

Measures

Demographic Information—Adolescents and their parents were asked to provide basic demographic information such as gender and race/ethnicity at the beginning of the study. Participant age was calculated using birth dates. Parents were asked to provide information regarding their level of education, annual household income, and number of persons supported by this income.

Maternal Acceptance—At age 13, adolescents and mothers completed Acceptance subscale of the CRPBI (Schaefer 1965; Schludermann and Schludermann 1970; Schludermann and Schludermann 1988). Acceptance was measured using 10 items that assess the quality of the parent-teen relationship, i.e. perceptions of the parents as being affectionate, emotionally supportive, and egalitarian versus ignoring, neglecting and rejecting (Schludermann and Schludermann 1970), such as, "My mother is a person who enjoys doing things with me." Mothers also completed this scale, rating the degree that they were accepting of the target teen. Each item was rated on a 3-point scale (from *not like* to *a lot like*), thus overall scores could range from 10 (low acceptance) to 30 (high acceptance). Cronbach's alphas for this scale were .88 for adolescents' reports and .82 for mothers' reports.

Observed Adolescent Emotional Disclosure—At ages 13 and 16, adolescents participated in an 8 min observed Supportive Behavior Task (SBT) during which they asked their mother for help with a "problem they were having that they could use some advice or support about." Typical topics included dating, problems with peers or siblings, raising money, or deciding about joining sports teams. Notably, as participants' mature, the nature of the topics selected and the depth of the discussion also mature, allowing this task to function easily as a repeated assessment paradigm. These interactions were coded using the supportive behavior coding system (Allen et al. 2001), which was based on several other similar systems (Crowell et al. 1998; Haynes and Katz 1993; Julien et al. 1997). For the purposes of the current study, various indices of adolescents' willingness to engage in discussion were assessed. The emotional disclosure subscale is intended to capture the quality of information that the adolescent shared about him- or herself during the SBT. Affect, controversy, and vulnerability are all considered when rating levels of self disclosure. More specifically, statements that are accompanied with a lot of affect on the adolescent's part, that would be controversial within the dyad, and which would cause the adolescent to feel vulnerable with the average parent would be considered highly disclosive. Two trained coders coded each interaction, and their codes were then averaged. Interrater reliability was calculated at ages 13 and 16 using intraclass correlation coefficients (r = .87 and r = .62, respectively).

Adolescent-Reported Emotional Communication—At ages 13 and 16, adolescents completed the Communication subscale of the Inventory of Parent and Peer Attachment (Armsden and Greenberg 1987). This subscale asked participant to indicate the accuracy of statements regarding the mother, such as, "I can tell my mother about my problems and troubles." The subscale included eight items at age 16, but due to time constraints in the

initial wave of data collection, the subscale was shortened fromeight items to seven items at age 13. Each item was rated on a 5-point scale (from *never true* to *almost always true*), thus overall scores could range from seven (low communication) to 35 (high communication) at age 13 and eight (low communication) to 40 (high communication) at age 16. Cronbach's alphas were .83 at age 13 and .91 at age 16.

Data Analytic Plan—To best address any potential biases due to attrition in longitudinal analyses, full imputation maximum likelihood (FIML) methods were used for all analyses, including all variables that were linked to future missing data (i.e., where data were not missing completely at random) (Muthén and Muthén 2008). Because these procedures have been found to yield the least biased estimates when all available data are used for longitudinal analyses (versus listwise deletion of missing data; Arbuckle 1996; Enders 2001; Raykov 2005), the full sample of 184 adolescents was utilized for these analyses. This full sample thus provides the best possible variance/covariance estimates and was least likely to be biased by missing data. No data is estimated or imputed in this procedure, however, rather it simply accounts and corrects for biases due to missing data. Complete data was available for 65–98% of the sample (depending on the measure examined). Alternative longitudinal analyses using just those adolescents without missing data (i.e., listwise deletion) yielded results that were substantially identical to those reported below. In sum, analyses suggest that attrition was modest overall and not likely to have distorted any of the findings reported.

Results

Preliminary Analyses

Means and standard deviations of primary constructs grouped by age are presented in Table 1. *T*-tests were conducted to examine potential changes in each construct over the duration of the study (i.e., between ages 13 and 16). While adolescents' reports of maternal acceptance show significant decreases from age 13 to age 16, mothers' self-reports of their acceptance did not change over time. Both observed adolescent emotional disclosure and adolescents' self-reported emotional communication declined from age 13 to age 16 as well. However, what appears to be an increase in adolescents' self-reported communication scores over time seems to be due to the inclusion of an additional item in the communication measure at age 16 (when divided by number of items, the resulting scores actually do not differ). Means and standard deviations of primary constructs grouped by gender are presented in Table 2. *T*-tests were conducted to examine potential gender differences in each construct, and revealed significant gender differences in both observed adolescent emotional disclosure and adolescents' self-reported emotional communication at age 16. Specifically, males exhibited significantly less emotional disclosure and reported significantly less emotional communication that females at age 16. However, males and females did not differ in observed adolescent emotional disclosure or adolescents' self-reported emotional communication at age 13. They also did not differ in maternal acceptance (neither adolescent nor mother-report) at either age. Correlations among these variables are shown in Table 3 and are discussed later with relevant hypotheses.

Contribution of Adolescents' Perceptions of Maternal Acceptance

To address the primary hypothesis that adolescents' perceptions of their mothers as high in acceptance would predict relative increases in adolescents' emotional disclosure, a series of cross-lagged path analyses were performed.

First, cross-lagged path analyses were conducted predicting adolescents' reported emotional communication and maternal acceptance at adolescent age 16 from adolescents' reported

emotional communication and maternal acceptance at adolescent age 13, after statistically controlling for age, gender, and family income. Consistent with the present hypothesis, higher levels of maternal acceptance at age 13 were predictive of greater relative increases in subsequent adolescents' reported emotional communication at age 16 ($\beta = .29$, $p < .01$), as presented in Fig. 1.

Second, cross-lagged path analyses were conducted predicting observed adolescent emotional disclosure and maternal acceptance at adolescent age 16 from observed adolescent emotional disclosure and maternal acceptance at adolescent age 13, after statistically controlling for age, gender, and family income. Consistent with the present hypothesis, higher levels of maternal acceptance at age 13 were predictive of greater relative increases in subsequent observed adolescent emotional disclosure at age 16 ($\beta = .23$, $p < .01$), as presented in Fig. 2.

Contribution of Mothers' Perceptions of Maternal Acceptance

While adolescents' perceptions of their mothers' acceptance was of primary interest, we thought it was important to determine whether mothers' self-reports of acceptance explained any unique variance in subsequent adolescents' reported emotional communication and observed adolescent disclosure above and beyond the variance explained by adolescents' perceptions. In order to address this question, mothers' self-reports of acceptance at age 13 were added into the original cross-lagged path models as an additional predictor variable.

First, mothers' self-reports were added to the model predicting adolescents' reported emotional communication. The path between adolescents' reports of maternal acceptance and subsequent changes in adolescents' reported emotional communication remained significant ($\beta = .29$, $p < .01$), while the path between mothers' self-reports of maternal acceptance and subsequent changes in adolescents' reported emotional communication were nonsignificant ($\beta = -.02$, *ns*).

Second, mothers' self-reports were added to the model predicting observed adolescent emotional disclosure. The path between adolescents' reports of maternal acceptance and subsequent changes in observed adolescent emotional disclosure remained significant ($\beta = .21$, $p < .05$), while the path between mothers' self-reports of maternal acceptance and subsequent changes in observed emotional adolescent disclosure were nonsignificant ($\beta = .07$, *ns*).

Discussion

With substantive evidence suggesting that adolescent disclosure is likely a protective factor against problem behaviors (Hutchinson et al. 2003; Kerr and Stattin 2000), as well as evidence that many adolescents will go to great lengths to *avoid* sharing information with parents (Mazur and Hubbard 2004; Perkins and Turiel 2007), one may conclude that parents' face a formidable task. While a few investigations of the precursors of adolescents' willingness to share information have been conducted (Smetana et al. 2006; Soenens et al. 2006), they have focused on only *behavioral* disclosure, and have relied on cross-sectional designs and self-reports of parenting and disclosure behaviors. The present study extends the literature by implementing a longitudinal, multi-method, multi-reporter design to shed new light on the association between maternal acceptance and adolescents' *emotional* disclosure over time.

Consistent with our hypotheses and with previous cross sectional findings (Smetana et al. 2006; Soenens et al. 2006), primary analyses revealed that adolescents who perceived their mothers as high in acceptance exhibited greater relative improvements in both self-reported

emotional communication and observed emotional disclosure 3 years later. This suggests that the importance of setting a positive tenor to the parent-adolescent relationship is not only related to adolescents sharing more information about their everyday activities and whereabouts, but may be crucial for encouraging adolescents to discuss emotional issues as well. This is especially important during adolescence, when so many personal and emotional issues, such as budding romantic relationships, have the potential to become particularly problematic.

While our maternal acceptance was indeed predictive of both self-reported and observed adolescent emotional disclosure over time, it is worth noting that adolescents' self-reports of emotional communication were not significantly correlated with our observations of adolescents' emotional disclosure. This finding is not entirely surprising, as previous research suggests that individuals' predictions of what they would do (e.g., how much emotional information they would share with their mother) in a given situation are not entirely accurate (Vazire and Mehl 2008). Still, it is possible that the lack of ecological validity of the Supportive Behavior Task may have influenced the results. Said more plainly, it is likely not often that adolescents discuss emotional issues with their mothers in front of a video camera. Yet, because any possible influence of this methodology would likely exist for all participants, these results remain worthy of interpretation. Another possibility is that adolescents who exhibited high levels of emotional disclosure during this task may simply be in greater need of emotional support or advice. However, this seems unlikely, as the positive association between this construct and maternal acceptance is parallels the findings regarding self-reported emotional communication in this study.

Notably, unlike previous studies that relied solely on cross sectional data (Smetana et al. 2006; Soenens et al. 2006), these results were attained across a three-year span. This relative increase in adolescents' emotional disclosure *over time* suggests that maternal acceptance and adolescents' disclosure are not merely *concurrently* related, and also suggests that open mother-adolescent communication likely does not precede maternal acceptance. Instead, one possible explanation is that when a mother sets an emotional tenor of acceptance early on, her adolescent will feel likely more comfortable coming to her to discuss personal and emotional issues later in adolescence.

Interestingly, post hoc analyses simultaneously examining both adolescents' and mothers' reports of maternal acceptance in the same model indicated that adolescents' perceptions of their mothers' acceptance seemed to be explaining these increases in adolescents' emotional disclosure. Mothers' reports did not explain any unique variance in any of the analyses. This finding is not entirely surprising, as different informants' ratings of parenting are typically only moderately correlated (Pettit et al. 2001; Smetana and Daddis 2002). It does, however, suggest that parents who need to work on being more accepting may think they have already done so when this is not the case. For example, consistent with the present study's results, parents may be becoming less accepting over time and are unaware of the change in their own behavior. In either case, it could be considered disheartening for mothers, as it suggests that their perceptions of their own parenting behaviors may not mean much in regards to adolescents' subsequent emotional disclosure. As such, the importance of checking in with adolescents regarding *their* perceptions of the relationship is emphasized as well.

Of course, this study is not without its limitations. First, the analyses focused only on maternal acceptance as a predictor of disclosure, rather than considering both parents' behavior. This is especially important, as the present study's results indicate a lower levels of male adolescents' emotional disclosure and communication than females', despite a lack of gender difference in maternal acceptance. This gender difference raises questions regarding the possibility that the opposite might be true if paternal acceptance and/or

communication with fathers were examined instead. Although existing literature has suggested that maternal knowledge may be a more effective protective factor against problem behaviors than paternal knowledge (Waizenhofer et al. 2004), the potential role of fathers' acceptance should not be ignored and should be addressed with future research. Furthermore, despite the fact that this study spanned 4 years, causal relationships cannot be inferred from these results, as even longitudinal data are not logically sufficient to establish causal relationships.

Despite its limitations, this study advances the extant literature on the potential ways that parents could encourage their adolescents to feel comfortable willingly disclosing emotional information. Taken together, these findings support the notion that adolescents' emotional disclosure is an ongoing process that should be fostered by mothers early in adolescence rather than waiting until problem behaviors begin to arise. Additionally, the importance of considering adolescents' perceptions of their mothers' acceptance, rather than relying on mothers' own self-perceptions, is emphasized. As a result, mothers' efforts may prove less futile, as relative declines in adolescent problem behaviors may follow.

Author Biographies

Amanda L. Hare is an Assistant Professor at the University of New England. She received her Ph.D. in Developmental and Community Psychology from the University of Virginia. Her major research interests include the roles of autonomy and relatedness in parental monitoring.

Emily G. Martson is a doctoral student in Clinical Psychology at the University of Virginia. Her major research interests include the predictors and sequelae of rejection sensitivity in adolescence.

Joseph P. Allen is a Professor at the University of Virginia. He received his Ph.D. in Clinical/Community Psychology from Yale University. His major research interests include adolescent socioemotional development in the family and peer contexts.

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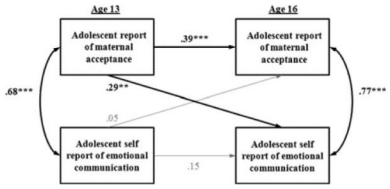

Fig. 1.

Cross lagged path analyses predicting adolescents' self-reports of emotional communication (R^2 = .25***) and adolescentreport of maternal acceptance (R^2 = .21***) at age 16. Significant pathways are *bolded*. Age, gender, and family income are covaried in all analyses. *Note*: ** $p < .01$; *** $p < .001$

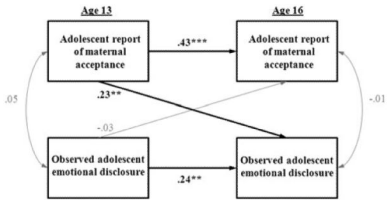

Fig. 2.

Cross lagged path analyses predicting observed adolescent emotional disclosure (R^2 = .19**) and adolescent-report of maternal acceptance (R^2 = .21***) at adolescent age 16. Significant pathways are *bolded*. Age, gender, and family income are covaried in all analyses. *Note*: ** $p < .01$; *** $p < .001$

Table 1

Means and standard deviations of primary variables of interest over time

Variable	Age 13		Age 16	
	M	SD	*M*	SD
Maternal acceptance (A)**	25.98	3.89	24.72	4.67
Maternal acceptance (M)	26.23	2.96	25.87	3.28
Observed emotional disclosure (O)***	1.31	1.03	0.84	0.79
Self-reported emotional communication (A)***	26.82	5.16	30.68	6.53

Reporter included in parentheses

A adolescent-report, *M* mother-report, *O* observed

** Significant difference in construct by age represented by $p < .01$

*** $p < .001$

Table 2

Means and standard deviations of primary variables of interest by gender

Variable	Males		Females	
	M	**SD**	***M***	**SD**
Maternal acceptance (13; A)	25.89	4.00	26.06	3.82
Maternal acceptance (16; A)	24.15	4.96	25.25	4.34
Maternal acceptance (13; M)	26.16	3.06	26.30	2.88
Maternal acceptance (16; M)	25.58	3.28	26.13	3.28
Observed emotional disclosure (13; O)	1.21	1.01	1.40	1.05
Observed emotional disclosure (16; O)**	0.62	0.68	1.04	0.84
Self-reported emotional communication (13; A)	26.58	4.94	27.03	5.36
Self-reported emotional communication (16, A)***	28.82	7.19	32.43	5.31

Adolescent age and reporter included in parentheses

A adolescent-report, *M* mother-report, *O* observed

** Significant gender difference in construct represented by $p < .01$;

*** $p < .001$

Table 3

Correlations among primary variables of interest

Variable	1.	2.	3.	4.	5.	6.	7.	8.
1. Maternal acceptance (13; A)	–							
2. Maternal acceptance (13; M)	.15*	–						
3. Maternal acceptance (16; A)	.44***	.27**	–					
4. Maternal acceptance (16; M)	.12	.70***	.42***	–				
5. Observed emotional disclosure (13; O)	.05	-.03	.04	.04	–			
6. Observed emotional disclosure (16; O)	.20*	.13	.10	.06	.24**	–		
7. Self-reported emotional communication (13; A)	.68***	.14†	.32***	.19*	.02	.08	–	
8. Self-reported emotional communication (16; A)	.40***	.19*	.79***	.35***	.02	.02	.36***	–

Adolescent age and reporter included in parentheses

A adolescent-report, *M* mother-report, *O* observed

† $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$