

Impact of Parenting Practices on Adolescent Achievement: Authoritative Parenting, School Involvement, and Encouragement to Succeed

Laurence Steinberg

Temple University

Susie D. Lamborn

University of West Florida

Sanford M. Dornbusch

Stanford University

Nancy Darling

Temple University

STEINBERG, LAURENCE; LAMBORN, SUSIE D.; DORNBUSCH, SANFORD M.; and DARLING, NANCY. *Impact of Parenting Practices on Adolescent Achievement: Authoritative Parenting, School Involvement, and Encouragement to Succeed*. CHILD DEVELOPMENT, 1992, 63, 1266–1281. This article examines the impact of authoritative parenting, parental involvement in schooling, and parental encouragement to succeed on adolescent school achievement in an ethnically and socioeconomically heterogeneous sample of approximately 6,400 American 14–18-year-olds. Adolescents reported in 1987 on their parents' general child-rearing practices and on their parents' achievement-specific socialization behaviors. In 1987, and again in 1988, data were collected on several aspects of the adolescents' school performance and school engagement. Authoritative parenting (high acceptance, supervision, and psychological autonomy granting) leads to better adolescent school performance and stronger school engagement. The positive impact of authoritative parenting on adolescent achievement, however, is mediated by the positive effect of authoritativeness on parental involvement in schooling. In addition, nonauthoritativeness attenuates the beneficial impact of parental involvement in schooling on adolescent achievement. Parental involvement is much more likely to promote adolescent school success when it occurs in the context of an authoritative home environment.

Several recent studies have demonstrated that adolescents who are raised in authoritative homes perform better in school than their peers (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Steinberg, Elmen, & Mounts, 1989; Steinberg, Mounts, Lamborn, & Dornbusch, 1991). These studies suggest that the link between authoritativeness and school success is (1) causal (Steinberg et al., 1989); (2) evident among both younger and older adolescents (see Lamborn et al., 1991; Steinberg

et al., 1989); (3) robust across different conceptualizations and operationalizations of authoritativeness (see Dornbusch et al., 1987; Lamborn et al., 1991; Steinberg et al., 1991); and (4) generalizable across various ethnic, socioeconomic, and family structure groups (Dornbusch et al., 1987; Steinberg et al., 1991). Additional research, on school outcomes other than grades, shows that authoritative parenting also is associated with increases in a number of attitudinal and behavioral indicators of academic orientation during adolescence, including a stronger

Preparation of this manuscript was supported by a grant to the first author from the Lilly Endowment. The study on which this report is based was supported by grants to Laurence Steinberg and B. Bradford Brown from the U.S. Department of Education through the National Center on Effective Secondary Schools at the University of Wisconsin-Madison, and to Sanford M. Dornbusch and P. Herbert Leiderman of the Stanford University Center for Families, Children, and Youth, from the Spencer Foundation. Address correspondence to the first author at the Department of Psychology, Temple University, Philadelphia, PA 19122.

work orientation, greater engagement in classroom activities, higher educational aspirations, more positive feelings about school, greater time spent on homework, more positive academic self-conceptions, and lower levels of school misconduct, such as cheating or copying assignments (Lamborn, Mounts, Brown, & Steinberg, in press; Lamborn et al., 1991; Patterson & Yoerger, 1991; Steinberg et al., 1989).

Authoritative parenting, a style of child rearing first identified in Baumrind's seminal studies of the socialization of competence (1967, 1978), is defined by the combination of high levels of parental responsiveness and high levels of demandingness (Maccoby & Martin, 1983). Recently, Steinberg and his colleagues have suggested that, in adolescence, three specific components of authoritative parenting contribute to healthy psychological development and school success: parental acceptance or warmth, behavioral supervision and strictness, and psychological autonomy granting or democracy (Steinberg, 1990; Steinberg et al., 1989, 1991). This trinity—warmth, control, and democracy—parallels the three central dimensions of parenting identified by Schaefer (1965) in his pioneering work on the assessment of parenting practices through children's reports. As well, they are conceptually similar to dimensions of parental control discussed by Baumrind in her recent reports (1991a, 1991b): supportive control (similar to warmth), assertive control (similar to behavioral supervision and strictness), and directive/conventional control (similar to the antithesis of psychological autonomy granting).

Authoritative parenting is but one of several means through which parents exert an impact on their youngsters' school performance. Parents also influence children's achievement through their direct involvement with school activities, such as helping with homework or course selection or attending parent-teacher conferences, and through the specific encouragement of school success, both explicitly and implicitly, by setting and maintaining high performance standards. Within the conceptual framework employed in this study, authoritative parenting is treated as a general style of child rearing that characterizes the parents' behavior toward the child in a wide variety of situations, whereas parents' encouragement of school success and their participation in school activities are seen as particular parenting practices with education-specific goals.

Although the effects of parental school involvement and parental academic encouragement have received less attention from developmental psychologists than has authoritative parenting, their study is firmly established among scholars in the fields of education and sociology. Educational researchers especially have been interested in the impact of parental school involvement on student performance in view of attempts to facilitate student achievement by drawing parents into the educational process (e.g., Baker & Stevenson, 1986; Becker & Epstein, 1982; Epstein, 1987; Stevenson & Baker, 1987). In general, studies indicate that students whose parents are more involved in their education earn higher grades in school, all other factors equal (e.g., Stevenson & Baker, 1987).

Sociologists have focused extensively on parental encouragement as one avenue of investigation into the status-attainment process (e.g., Seginer, 1983; Sewell & Hauser, 1980). This research demonstrates, not surprisingly, that higher levels of student achievement are associated with greater parental encouragement. Indeed, considerable research in the tradition of what is known as the Wisconsin Status Attainment Model (e.g., Sewell & Hauser, 1980) suggests that parental encouragement is the primary mediator of the well-established connection between family social class and student academic performance.

The present investigation links the study of authoritative parenting with research on parental school involvement and scholastic encouragement. It extends previous research on the relation between authoritative parenting and adolescent school achievement in several ways. First, this study examines the relations between school performance and parental behaviors over time, in order to examine whether authoritative parenting, parental involvement, and parental encouragement actually *lead* to improvements in school. Although a few studies have approached this subject longitudinally, most research on the topic has been cross-sectional in design and therefore open to various causal interpretations (among the more plausible, that adolescent school success elicits authoritative parenting, school involvement, or encouragement from parents). The available longitudinal evidence on parenting practices and school performance is limited to studies of children and young adolescents (e.g., Patterson & Yoerger, 1991; Steinberg et al., 1989). In this study, we examine the over-time relation between par-

enting and school performance in a sample of high school youth.

Second, in this study we examine the effects of authoritative parenting on student achievement while taking into account the *mediating* effects of parental encouragement and educational involvement. Authoritative parents are more likely to be involved in school and more likely to encourage academic excellence (Bogenschneider, 1990). Positive effects attributed to the authoritative "style" of parenting may be mediated by a number of more concrete and education-specific behaviors in which authoritative parents are more likely to engage (Patterson & Yoerger, 1991). Understanding whether authoritative parenting contributes to school success through such education-specific behaviors is important not only to those who study adolescent socialization in general, but to educational practitioners who are interested in developing family-based programs designed to enhance adolescents' school performance.

Third, we examine the *moderating* effect of authoritative parenting on the relation between parental involvement and encouragement and the academic outcomes. Here we ask whether the effects of parental involvement and encouragement on school performance and school engagement differ as a function of the overall level of authoritative parenting in the household. Parental involvement or encouragement may be salient influences on adolescent achievement only when they occur in the context of more positive overall child-rearing practices. Indeed, one might hypothesize that having a nonauthoritative parent heavily involved in an adolescent's schooling could do more harm than good.

Finally, we examine the impact of parenting on adolescent achievement in a large, ethnically and socioeconomically heterogeneous population of youngsters. Most previous work on this subject has been limited to studies of white, middle-class families. The size and diversity of the present sample permit us to ask whether observed relations between parenting practices and adolescent achievement transcend ethnicity and socioeconomic status.

Method

Sample

Our sample is drawn from the student bodies of nine high schools in Wisconsin and northern California. The schools were selected to yield a sample of students from

different socioeconomic brackets, a variety of ethnic backgrounds (African-, Asian-, European-, and Hispanic-American), different family structures (e.g., intact, divorced, and remarried), and different types of communities (urban, suburban, and rural). Data for the present analyses were collected during the 1987–88 and 1988–89 school years via self-report surveys filled out by the students on two days of survey administration each school year. (Because of its length, the survey was divided into two parts.)

Procedure

Recent reports suggest that the use of "active consent" procedures in research on adolescents and their families (i.e., procedures requiring active parental written consent in order for their adolescents to participate in the research) may result in sampling biases that overrepresent well-functioning teenagers and families (e.g., Weinberger, Tublin, Ford, & Feldman, 1990). Although groups of participants and nonparticipants generated through such consent procedures may be comparable demographically (the dimension along which investigators typically look for evidence of selective participation), the procedure screens out a disproportionate number of adolescents who have adjustment problems and/or family difficulties. Because we were interested in studying adolescents with disengaged, as well as those with involved, parents, we were concerned that employing the standard active consent procedure (in which *both* parents and adolescents are asked to return signed consent forms to their child's school) would bias our sample toward families who were more engaged in school and exclude the substantial number of parents who are not especially involved in their youngster's education. (Our surveys indicate, for example, that 43% of high school students' parents *never* participate in school programs.)

After considering the age of our respondents and their ability to provide informed consent, and with the support of the administrators of our participating schools, the school districts' research review committees, representatives of the U.S. Department of Education (our chief funding agent), and our own institutions' human subjects committees, we decided to employ a consent procedure that requested "active" informed consent from the adolescents, but "passive" informed consent from their parents. All parents in the participating schools were informed, by first-class mail, of the date and nature of our study well in advance of the scheduled questionnaire administra-

tion. (We provided schools with letters in stamped, unaddressed envelopes to be mailed by school officials in order to protect the privacy of the families.) Parents were asked to call or write to their child's school or our research office if they did *not* want their child to participate in the study. Fewer than 1% of the adolescents in each of the target schools had their participation withheld by their parents.

All of the students in attendance on each day of testing were explained the purposes of the study and asked to complete the questionnaires. Informed consent was obtained from all participating students. For each questionnaire administration, out of the total school populations, approximately 5% of the students chose not to participate (or had their participation withheld by parents), approximately 15% were absent from school on the day of questionnaire administration (this figure is comparable to national figures on daily school attendance), and approximately 80% provided completed questionnaires. In the 1987–88 school year, 11,669 students participated in the study. In the 1988–89 school year, 11,248 students participated. Our longitudinal study sample across the 2 years included approximately 6,357 students. Subject attrition over the 1-year period was due primarily to graduation (the 1987–88 sample included 2,185 seniors), dropping out of school, or movement out of the school district.

The use of this consent procedure has both costs and benefits. On the positive side, we have responses from a more representative sample of adolescents, including adolescents whose parents are not involved in school, than one would otherwise have. On the negative side, however, our consent procedure does not permit us to obtain information from an equally representative set of parents. Rather than limit our study to the well-functioning parents who volunteer to participate in research of this sort, we have chosen to collect information on parenting practices from the adolescents themselves. Because our information on parenting practices comes through the eyes of the adolescents, however, we can only ask whether youngsters who characterize their parents in certain ways show particular patterns of academic achievement. We recognize that it also is important to know, for methodological, theoretical, and practical reasons, whether parents' *actual* behavior toward their children's schooling is associated in similar ways with the outcomes assessed.

Yet we do not subscribe to the view that objective (i.e., independent) assessments of parenting behavior are the only valid indicators of how parents behave toward their children (see also Bronfenbrenner, 1979; Jessor & Jessor, 1977; and Schaefer, 1965, for similar arguments). Rather, our position is that subjective and objective assessments of parental behavior each provide an important window on the child's experience in the family.

Because each year's survey was divided into two portions administered on separate testing days, there were some students in the sample who completed only one of the two parts of the survey in a given year. This occasionally presented a problem in the scoring of composite measures that drew on both survey parts. In general, we handled instances of missing data conservatively, calculating composite scores only when respondents had answered 80% of the necessary items. As a result of this procedure, however, our *N*'s varied from analysis to analysis (depending on the variables examined), but in no instance did our main analyses involve fewer than 3,500 cases. Nonetheless, because absence from school was an important cause of missing data, the sample on whom the main data analyses were performed is in all likelihood relatively more engaged in school than were the student bodies in general. Our important implication of this is that our estimates of effects are likely to be overly conservative: Because variability in our school outcome measures is probably constrained, the observed relations between outcomes and predictors are attenuated.

Characteristics of the study sample are presented in Table 1. As the table indicates, the sample is evenly divided among males and females and among ninth, tenth, and eleventh graders. The sample is quite diverse with respect to other demographic variables: more than 40% of the respondents are from an ethnic minority group, nearly one-third are from single-parent households or stepfamilies, and nearly one-third come from homes in which the parents have not attended school beyond the twelfth grade.

Measures

Of interest in the present analyses are our measures of authoritative parenting, parental involvement in education, and parental encouragement, as well as our battery of academic outcomes.

Authoritative parenting.—The 1987

TABLE 1

CHARACTERISTICS OF THE STUDY SAMPLE

	Percent of Sample
Sex:	
Male	50.9
Female	49.1
Grade at first assessment:	
Ninth	34.2
Tenth	33.5
Eleventh	32.2
Ethnicity:	
African-American	11.0
Asian-American	13.4
Hispanic-American	15.4
European-American	57.7
Other	2.5
Family structure:	
Intact	68.9
Nonintact	31.1
Parental education:	
Some college or beyond	70.7
No college	29.3

questionnaire contained many items on parenting practices that were taken or adapted from existing measures (e.g., Dornbusch et al., 1985; Patterson & Stouthamer-Loeber, 1984; Rodgers, 1966) or developed for this program of work. Based on the previous work of Steinberg et al. (1989), a number of items were selected to correspond with the three dimensions of authoritative parenting identified earlier, and these were subjected to exploratory factor analyses using an oblique rotation. Three factors emerged, corresponding to the dimensions of acceptance/involvement, behavioral supervision and strictness, and psychological autonomy-granting.¹ As noted earlier, these factors are similar to those suggested in the earlier work of Schaefer (1965) and the recent work of Baumrind (1991a, 1991b). We have labeled these scales in ways that both capture the item content of each and that emphasize parallels between our measures and those used by other researchers.

The *acceptance/involvement* scale measures the extent to which the adolescent perceives his or her parents as loving, responsive, and involved (sample items: "I can count on her to help me out if I have some kind of problem"; "How often does your

family do something fun together?"; 15 items, $\alpha = .72$). The *strictness/supervision* scale assesses parental monitoring and limit setting (sample items: "How much do your parents try to know where you go at night?"; "In a typical week, what is the latest you can stay out on school nights (Monday–Thursday)?"; How much do your parents really know what you do with your free time?"; 9 items, $\alpha = .76$). The *psychological autonomy granting* scale assesses the extent to which parents employ noncoercive, democratic discipline and encourage the adolescent to express individuality within the family (sample items, reverse scored: "How often do your parents tell you that their ideas are correct and that you should not question them?"; "How often do your parents answer your arguments by saying something like 'You'll know better when you grow up'?"; 12 items, $\alpha = .82$). The items comprising these three dimensions cover a wide variety of topics and index the child's perception of the parent's overall behavior, rather than the parent's school-specific socialization practices.

The use of adolescents' reports about their parents was justified on several grounds. Given the size of the sample, it was necessary to rely on questionnaire data, and the difficulties in obtaining data from disengaged parents in particular have already been mentioned. As well, parental self-reports tend to exaggerate parental acceptance and firm discipline and have been criticized as unreliable (Schwarz, Barton-Henry, & Pruzinsky, 1985). Adolescents, on the other hand, are able to act as knowledgeable informants about parental behaviors (Golden, 1969; Moskowitz & Schwarz, 1982). Moreover, some writers have argued that children's perceptions of their parents' behavior are as important influences on their development as are parents' actual behavior (see Bronfenbrenner, 1979; Schaefer, 1965).

Composite scores were calculated on each of the three parenting dimensions. For most of the items, students were asked to describe the parent(s) with whom they lived. On those items for which students in two-parent homes were asked to answer separately for their mother and father, scores were averaged before forming composites. (Baumrind [1991a] reports that there is considerable convergence between mothers'

¹ As we report elsewhere in detail (Steinberg et al., 1991), this factor structure is virtually identical across ethnic, social class, and family structure groups.

and fathers' ratings.) Based on previous work and the theoretical model of authoritative parenting tested in this study, we constructed an ordinal measure of "authoritativeness" as follows: families scoring above the sample median on acceptance/involvement, strictness/supervision, and psychological autonomy (*authoritative*) were assigned an authoritativeness score of 3. Families scoring below the sample median on all three of the dimensions (*nonauthoritative*) were assigned an authoritativeness score of 0. Families scoring above the sample median on one (*somewhat nonauthoritative*) or two (*somewhat authoritative*) of the parenting dimensions were assigned scores of 1 or 2, respectively. Previous work using these instruments and this general operationalization (Steinberg et al., 1991) has demonstrated that adolescents from authoritative families, so defined, score higher than their peers, and those from nonauthoritative families lower than their peers, on a wide range of outcome variables, including several indicators of school performance and engagement. In the present sample, the distribution of families across the four categories of authoritativeness was as follows: authoritative (17%), somewhat authoritative (32%), somewhat nonauthoritative (34%), and nonauthoritative (17%). Not surprisingly, the prevalence of authoritativeness varies as a function of ethnicity, parental education, and adolescent sex, but not adolescent age. European-American students, middle-class students, and girls were all more likely to characterize their parents as authoritative. Authoritative parenting was especially infrequent among Asian-American (10%) and Hispanic-American (12%) households.

Parental involvement in schooling.—In 1987, students reported on the frequency with which their parents were involved in their high school education in five respects: helping with homework when asked, attending school programs, watching the student in sports or other extracurricular activities, helping the student select courses, and knowing how the student is doing in school. Response categories were "Never," "Sometimes," and "Usually." A composite index of involvement was formed by averaging across items (5 items, $\alpha = .74$). Parental involve-

ment varied as a function of ethnicity, social class, and adolescent age, but not adolescent sex. Parents of European-American, middle-class, and younger students were more involved in school than their counterparts. As was the case for parental authoritativeness, Asian-American and Hispanic-American parents were least involved in school.

Parental encouragement to succeed.—In 1987, students also reported on the degree to which their parents convey the need to do well in school, explicitly and implicitly. Sample items from our index of parental encouragement (eight items; $\alpha = .60$) are: "How important is it to your parents or guardians that you work hard on your schoolwork?"; "For each of these classes [math, English, social studies, science], what is the lowest semester grade you could get without your parents getting upset?"; "When I get a poor grade, my parents don't care" (reverse coded). Parental encouragement to succeed varied as a function of ethnicity, social class, and adolescent age, but not adolescent sex. Hispanic-American parents were less likely to encourage success than were other parents (whose levels of encouragement were comparable), as were working-class parents and parents of older students.

Academic outcomes.—Each year, the questionnaire battery contained four measures each of academic performance and school-related attitudes. Students provided a self-report of their *grade-point average* (GPA) scored on a conventional four-point scale. Previous work indicates that self-reported grades and actual grades taken from official school records are highly correlated ($r = .80$) (Donovan & Jessor, 1985; Dornbusch et al., 1987).² Students also reported on the amount of *time spent on homework* each week, averaged across their four major classes (math, English, social studies, and science). Our index of *classroom engagement* ($\alpha = .70$; Newmann, 1981) is based on students' reports of their effort, concentration, and attention, as well as their frequency of mind wandering (reverse coded) during class in the four main subject areas (math, English, social studies, and science). Responses were on a five-point scale for each item, ranging from "Never" to "Al-

² The use of our particular consent procedure prohibited our obtaining grades from official school records in many of our schools. In Wisconsin, for example, active parental consent is required in order to gain access to school records. Given the advantages of the passive consent procedure we employed, and in light of the high correlation between actual grades and high school students' reports, we believe that using self-reports of school performance was justified.

1272 Child Development

ways" or "Almost Every Day." Our index of *school misconduct* assesses the frequency of copying homework, cheating on exams, and tardiness or absence from class ($\alpha = .68$; Ruggiero, 1984). Bonding to teachers and school orientation are two scales that were derived by factor analyzing a set of items that assesses the students' feelings of attachment to school (Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). Responses to these items were on a four-point scale, from "Strongly Agree" to "Strongly Disagree." *Bonding to teachers* (five items, $\alpha = .75$) assesses the student's attachment to his or her teachers. A sample item is "I care what most of my teachers think of me." *School orientation* (six items, $\alpha = .69$) measures students' valuing of and commitment to school. A sample item is "I feel satisfied with school because I'm learning a lot." The *academic competence* subscale of the Youth Self-Perception Profile (Harter, 1982) includes five items asking about the student's perceptions of his or her intelligence in relation to classmates, ability to complete homework quickly, and capability in classroom ($\alpha = .73$). Finally, *educational expectations* were assessed with a single item: "Considering your situation, what is the highest level that you really EXPECT to go in school?" Six response categories ranged from "Leave high school as soon as possible" to "Finish college and take further training (medical, law, graduate school, etc.)."

In order to reduce this set of academic outcomes to a more manageable set of dependent measures and to take into account observed intercorrelations among these variables, we conducted exploratory factor analyses using 1987 scores and again using 1988 scores. Virtually identical two-factor solu-

tions emerged each time. These factor analyses were used to guide the construction of four academic indices (two for 1987 and two for 1988), each based on the mean of each student's standardized scores on the appropriate component variables. One index, which we label *school performance*, is composed of grade-point average, time spent on homework, educational expectations, and academic self-conceptions. Students scoring high on this index earn high grades, devote a good deal of time to their studies outside of school, aspire to higher levels of postsecondary education, and have positive academic self-conceptions. The other index, which we label *school engagement*, is composed of scores on our measures of classroom engagement, school orientation, bonding to teachers, and school misconduct. Students who score high on this index report being engaged during class, enjoying and valuing school, having good relations with their teachers, and behaving themselves properly while in school. As anticipated, these two indices are significantly and positively correlated (for 1987, $r = .33, p < .001$; for 1988, $r = .39, p < .001$).

Means, standard deviations, and ranges for the independent and dependent variables appear in Table 2.

Plan of Analysis

Our analyses proceeded in three stages. First, in order to examine the over-time, direct relations between authoritative parenting and school performance and school engagement, we computed the partial correlations between authoritative parenting and each of the 1988 academic indices, after controlling for the 1987 score on the relevant index. Next, in order to test the specific mediational model we have hypothesized, we conducted

TABLE 2

MEANS, STANDARD DEVIATIONS, AND RANGES FOR 1987 PARENTING VARIABLES AND 1987 AND 1988 ACADEMIC OUTCOMES

Variable	Mean	SD	Minimum	Maximum
Parenting variables:				
School involvement	2.11	.50	1.00	3.00
Academic encouragement	3.67	.59	.93	4.75
Authoritativeness	1.49	.96	.00	3.00
Academic indices:				
1987 school performance	-.01	.75	-2.84	1.53
1988 school performance .....	.01	.73	-2.85	1.61
1987 school engagement .....	.03	.71	-3.03	2.02
1988 school engagement .....	.04	.72	-3.20	2.03

a path analysis in which the relations between authoritative parenting at Time 1 and the two academic indices at Time 2 were examined after controlling for Time 1 scores on the academic indices and taking into account the mediating effects of parental encouragement and parental involvement. Finally, in order to examine the possible moderating effects of authoritativeness on the impacts of parental involvement and encouragement on adolescent achievement, we computed the correlations between the academic outcomes and parental involvement and encouragement separately for the four authoritativeness (authoritative, somewhat authoritative, somewhat nonauthoritative, nonauthoritative) groups.

Using 1987 scores on the outcome variables as covariates in our analyses permits us to examine the impact of parenting on *changes* in the outcome over the 1-year period, but this approach does not suffer from the statistical problems associated with the use of change scores. Although this analytic approach is appropriate for the analysis of longitudinal data, the use of the Time 1 outcome scores as covariates yields a constrained estimate of the magnitude of the impact of authoritative parenting on the outcome in question because of the very large autocorrelation coefficients over the 1-year period for the academic indices (for school performance, the 1-year autocorrelation is $r = .73, p < .001$; for school engagement, it is $r = .65, p < .001$). Thus, the aforementioned analyses should be viewed as tests of significance only, and not as providing estimates of effect size. In order to better gauge this, we also present the coefficients for the relation between Time 1 parenting and the Time 2 academic outcomes *without* the Time 1 academic outcomes in the equation. This gives some sense of the magnitude of the over-time correlation between authoritative parenting and school performance and engagement. In addition,

we present effect size coefficients (d) for contrasts between the four authoritative parenting groups.

Although not a primary focus of this investigation, the size and heterogeneity of our sample permitted us to examine whether any observed relations among our variables differed as a function of the adolescent's sex, age, ethnicity, or social class (indexed by parental education). Accordingly, we repeated many of our analyses within the various subpopulations of adolescents. Patterns of findings that differ in important ways from the overall results are noted in the text.

Results

Impact of Authoritative Parenting on Adolescent Achievement

The results of the first series of analyses are presented in Tables 3 and 4. Table 3 presents the correlations between authoritative parenting and the two academic indices assessed 1 year later, with and without controlling for initial scores on the academic indices. The means and t values from contrasts between students in the "authoritative," "somewhat authoritative," and "somewhat nonauthoritative" and "nonauthoritative" groups for the two academic indices appear in Table 4, along with effect size coefficients (d) for each of the paired contrasts.

The results indicate that authoritative parenting has a significant impact on adolescent school performance and engagement during the high school years. This is seen both in the significant correlations between authoritativeness and the indices of achievement as well as in the comparison of academic scores among adolescents from households varying in authoritativeness. On both indices, adolescents from clearly authoritative homes score higher than their peers from homes that are neither unquestionably authoritative nor unquestionably nonauthoritative, who in turn score higher

TABLE 3

CORRELATIONS BETWEEN 1987 AUTHORITATIVE PARENTING AND 1988 ADOLESCENT SCHOOL PERFORMANCE AND ENGAGEMENT, WITH AND WITHOUT CONTROLS FOR 1987 ACADEMIC SCORES

Outcome	Without 1987 Control	With 1987 Control
School performance .....	.27*	.10*
School engagement .....	.23*	.06*

* $p < .001$.

TABLE 4

CONTRASTS BETWEEN ADOLESCENTS FROM AUTHORITATIVE, SOMEWHAT AUTHORITATIVE, SOMEWHAT NONAUTHORITATIVE, AND NONAUTHORITATIVE HOMES ON INDICES OF SCHOOL PERFORMANCE AND ENGAGEMENT

	AUTHORITATIVE		SOMEWHAT AUTHORITATIVE		SOMEWHAT NONAUTHORITATIVE		NONAUTHORITATIVE		d^d
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
1987 school performance	.40	.62	.37	.67	.33	.73	-.07	.78	.88
1988 school performance	.41	.59	.42	.65	.25	.71	-.02	.67	.89
1987 school engagement	.34	.63	.31	.65	.32	.70	-.08	.70	.96
1988 school engagement	.25	.63	.22	.65	.29	.71	-.09	.71	.72

NOTE.—All one-way ANOVAs and Duncan paired contrasts between groups significant at $p < .001$.

^a Effect size of contrast between "authoritative" and "somewhat authoritative" groups.

^b Effect size of contrast between "somewhat authoritative" and "somewhat nonauthoritative" groups.

^c Effect size of contrast between "somewhat nonauthoritative" and "nonauthoritative" groups.

^d Effect size of contrast between "authoritative" and "nonauthoritative" groups.

than students from definitely nonauthoritative homes. More important, the significant partial correlations between parental authoritativeness and both adolescent performance and engagement provide support for the notion that authoritative parenting leads to, and not simply accompanies (or follows from), higher achievement.

Although the magnitude of the correlations reported in Table 3 is quite small, an examination of the results of the effect size analysis in Table 4 indicates that the differences in performance and engagement among adolescents whose parents vary in authoritativeness are not trivial. Based on conventional statistical standards—in which a d value of .2 is considered small, .5 moderate, and .8 large—many of the differences between the groups can be characterized as “moderate” in size. As expected, the differences between adolescents from the extreme groups (authoritative vs. nonauthoritative) are more substantial, and most fall into the “large” range. Generally speaking, parental authoritativeness affects the school performance and engagement of boys and girls, of high school students from different grades, and of youngsters from different socioeconomic statuses similarly. The zero-order, lagged correlation between parental authoritativeness and adolescent achievement is significantly lower (albeit still positive and significant) among African-American adolescents (.12), however, than among Asian-, European-, or Hispanic-American adolescents (.24, .30, and .25, respectively).

The Mediating Roles of Parental Involvement and Academic Encouragement

As expected, parental authoritativeness is significantly correlated with parental school involvement ($r = .46, p < .001$) and with parental academic encouragement ($r = .33, p < .001$) (involvement and encouragement are also significantly correlated; $r = .39, p < .001$). This pattern of correlations supported our examining whether the overtime relation between authoritative parenting and school success is attributable to the higher levels of school involvement and educational encouragement characteristic of authoritative parents. Accordingly, a path model was examined in which authoritative parenting was hypothesized to lead to greater parental involvement and encouragement, which in turn were expected to facilitate greater school performance and engagement. These analyses also control for

prior scores on the academic indicators, which were treated as exogenous variables in the model. The results are presented in Figure 1.

Figure 1 indicates that the impact of authoritative parenting on adolescent school success is attributable to the greater likelihood of authoritative parents to be involved in their youngsters' schooling. Whereas the previous analyses had indicated that authoritative parenting is a significant predictor of both school performance and school engagement, the present analysis indicates that the relations between authoritative parenting and school performance and engagement no longer remain statistically significant once parental encouragement and, especially, school involvement are taken into account. In other words, children from authoritative homes do better and are more engaged in school in part because their parents are more involved in schooling.

Our main interest in this paper is in the impact of authoritative parenting on school success. But the results in Figure 1 also point up the importance of parental school involvement, even during the high school years. The analyses indicate that parents' involvement in schooling enhances their adolescents' academic performance. Parental encouragement of academic excellence, in contrast, does not appear to enhance either youngsters' school performance or their school engagement, once parental involvement in schooling is taken into account. The longitudinal analyses demonstrate that parental involvement actually *leads* to academic success, rather than simply accompanying it. The analyses also indicate that parents have very little direct effect on adolescents' school engagement, other than that which is mediated through school performance.

This general pattern of findings also emerged when the same analyses were repeated for various subgroups of adolescents, with three important exceptions, however, all pointing to the moderating effects of ethnicity. First, among African-American youngsters, neither parental involvement nor parental encouragement was a significant predictor of school performance or school engagement, paralleling the finding, reported earlier, that parental authoritativeness is not a good predictor of academic achievement in African-American homes. Second, although in general parents have little impact on student engagement (see Fig.

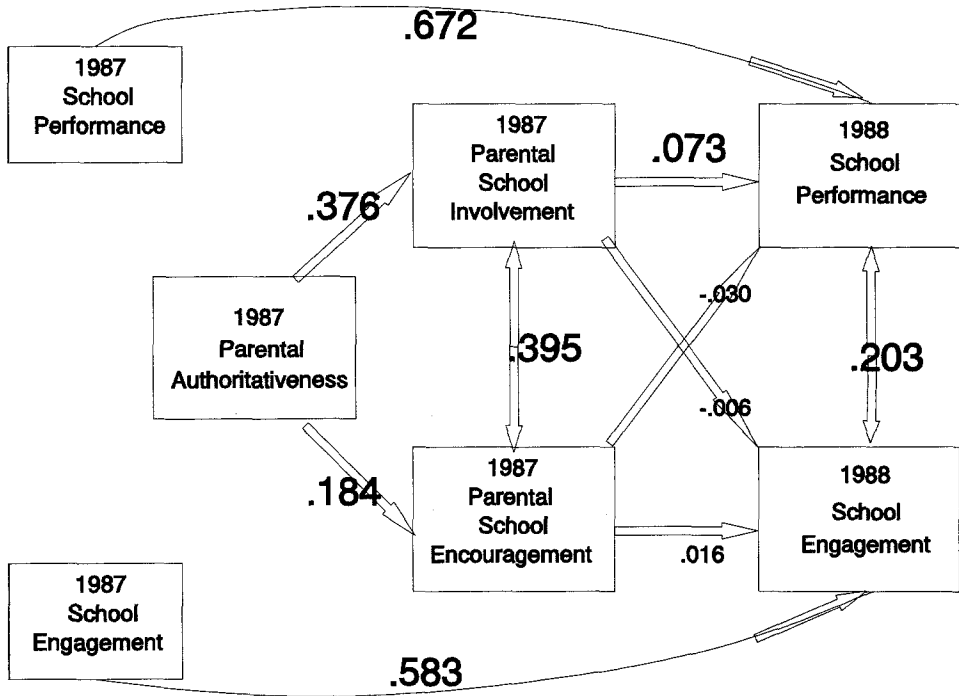


FIG. 1.—Over-time impact of parental authoritativeness on adolescent school performance and school engagement, mediated by parental involvement in school and parental encouragement of academic success. Note: Numerals along paths are standardized regression coefficients (β). Significant paths are indicated with larger numerals.

1), engagement is significantly enhanced by both parental encouragement and parental authoritativeness among Hispanic-American students. Finally, in Asian-American homes, parental encouragement has a significant, positive impact on school performance. Overall, the findings suggest that the impact of school-specific parenting practices on adolescent achievement may be stronger in Asian-American and Hispanic-American homes, and weaker in African-American homes, than in European-American homes.

The Moderating Role of Authoritative Parenting

In a final set of analyses, we examine whether parental authoritativeness moderates the impact of parental involvement or parental encouragement on adolescent achievement. In order to answer this question, we computed the correlations between the two academic indicators and parental involvement and encouragement separately for the four authoritativeness groups. The results of these analyses are presented in Table 5.

The findings are clearest with regard to

the relation between parental involvement and adolescent school performance (the first two columns of correlations). Although parental involvement is associated with higher school performance among all groups, the magnitude of its effect is significantly smaller in nonauthoritative homes (the differences between the correlation for the nonauthoritative group and for each other group are all significant at $p < .05$ or better). This suggests that nonauthoritative parenting can partially undermine the beneficial effect of parental school involvement.

The other columns of correlations do not lend themselves to as clear-cut an interpretation. In general, the relation between parental involvement and adolescent school engagement (columns 3 and 4 in Table 5) and the relation between parental academic encouragement and adolescent school performance is quite small, and with occasional exceptions, the correlations are not significantly different from each other. The relation between parental encouragement and student engagement (columns 7 and 8) is similar to that between parental involve-

TABLE 5
CORRELATIONS BETWEEN ACADEMIC INDICATORS AND SCHOOL-SPECIFIC PARENTING PRACTICES AS A FUNCTION OF PARENTAL AUTHORITY/ENGAGEMENT

LEVEL OF AUTHORITY/ENGAGEMENT	CORRELATION WITH 1987 PARENTAL INVOLVEMENT				CORRELATION WITH 1987 PARENTAL ENCOURAGEMENT			
	School Performance		School Engagement		School Performance		School Engagement	
	1987	1988	1987	1988	1987	1988	1987	1988
Nonauthoritative (N = 1,216)	.12**	.09**	-.01	-.02	.07*	.06	.04	.00
Somewhat nonauthoritative (2,454)	.23**	.23**	.05*	.02	.05*	.10**	.13**	.12**
Somewhat authoritative (2,312)	.23**	.21**	.06**	.06*	.02	.06*	.16**	.15**
Authoritative (1,239)	.28**	.23**	.04	.06	.01	-.01	.12**	.07

* $p < .05$.

** $p < .01$.

1278 Child Development

ment and adolescent school performance: In general, nonauthoritative parenting appears to undermine the otherwise positive effect of parental encouragement to succeed.

Discussion

The findings presented here both replicate and extend previous research on the relation between authoritative parenting and adolescent achievement. As in previous studies, we find that students who describe their parents as authoritative—warm, firm, and democratic—report better school performance and stronger school engagement than their peers. The longitudinal analyses presented here indicate that authoritative parenting indeed *leads* to school success. This has been documented in younger adolescent samples (Patterson & Yoerger, 1991; Steinberg et al., 1989), but to our knowledge this is the first demonstration of the over-time contribution of authoritative parenting to the academic performance of high school students. High school students who describe their parents as authoritative improved more academically and became more engaged in school over the 1-year study period than did their counterparts from nonauthoritative homes. These findings cut across sex, age, and social class groups, but not across ethnic groups, as we discuss below.

That authoritative parenting leads to improved achievement does not, of course, rule out the very plausible possibility that adolescent achievement also provokes authoritative parenting (i.e., that the relation between the two is reciprocal). And it is of course possible (and probably quite likely) that earlier authoritative parenting predicts subsequent adolescent achievement in part because of continuity in parenting practices over time. Unfortunately, we are not able to examine these hypotheses in the present analyses because we did not collect data on levels of authoritative parenting at the 1-year follow-up—a decision we made in light of past research indicating that parenting practices are reasonably stable over short intervals (e.g., Hetherington & Clingempeel, 1989). While these possible pathways of influence must be examined in any full model of the relation between parenting practices and adolescent achievement, the longitudinal results reported here nevertheless provide evidence that parenting practices continue to make a difference during the high school years (because of their over-time effect, their contemporaneous effect, inertia, or some combination of all three)—a notion

that runs counter to the widespread and popular stereotype of older adolescents as impervious to the influence of their parents.

Because our analyses controlled for students' initial scores on the outcome variables of interest, we can question the notion that the link between parental authoritative-ness and school success is simply due to some unmeasured third variable. Any such alternative explanation would necessitate postulating a third variable that was correlated with students' achievement in 1988 but not with their achievement just 1 year earlier. Although such variables conceivably could exist, it seems far more plausible, and certainly more parsimonious, to conclude that authoritative parenting enhances school success, either over-time, contemporaneously, or both. Our analytic procedure also overcomes threats to internal validity associated with common source and method variance and with the social desirability presumed to contaminate self-reports, since these factors are likely partialled out along with students' reports of their 1987 academic scores.

The magnitude of the relations between authoritative-ness and academic success observed here is not trivial. In particular, many of the effect size coefficients for the contrast between authoritatively reared and nonauthoritatively reared adolescents are "moderate" by conventional statistical standards, and some are even larger. To cite one concrete example, drawn from post hoc comparisons of scores on the independent items comprising the academic indices (not reported in the text), the difference in school performance between authoritatively and nonauthoritatively reared youngsters is close to one-half of a letter grade. Moreover, the present study focused on 1 year in the life of our students; presumably, the cumulative impact of authoritative parenting on academic achievement over the course of a 12-year school career is even greater.

This study also examined the mediating roles played by parental involvement in school and parental encouragement of academic success. As expected, parental authoritative-ness is associated with higher levels of school involvement and more encouragement of academic success. More important, our analyses show that parental involvement in particular—operationalized in terms of behaviors such as attending school programs, helping with course selection, and monitoring student progress—accounts for

the better school performance and stronger school engagement of adolescents from homes characterized as authoritative. In contrast, parental encouragement of academic success does not appear to play a direct role in facilitating adolescent school performance or engagement once parental involvement is taken into account.

Because our study employed a longitudinal design we are able to say with some confidence that parents' involvement in school actually leads to improvements in school performance. (Once again, this does not mean that the reverse causal pathway is not also valid.) Although we have long known scholastic success is correlated with parental participation in education, this study provides evidence that school success follows from, and does not only accompany or precede, parents' involvement. While no correlational research can demonstrate causation, the present results provide a rationale for the implementation and evaluation of interventions aimed at enhancing parents' participation in their children's high school education and for further research on the specific components of parental involvement that make a difference in youngsters' performance.

Although not a main focus of this report, our analyses suggest that the parenting practices studied here may have less of an influence on student achievement among African-Americans than among other ethnic groups, echoing findings reported by Dornbusch et al. (1987) and Steinberg et al. (1991). Thus, although African-American parents score among the highest in our sample on measures of authoritativeness, school involvement, and academic encouragement, their efforts do not yield the same positive results in student achievement as is the case in other ethnic groups. This pattern does not seem to be due to differences in socioeconomic status among ethnic groups, since the general pattern of findings held across the social classes studied here. One possibility, for which we present evidence in another article (Steinberg, Dornbusch, & Brown, in press), is that the school performance of African-American students is especially influenced by their peers, and that these peer influences may overwhelm and undermine the positive effects of otherwise beneficial parental practices. Further research examining parenting practices and adolescent development in various ethnic groups is sorely needed (see also Spencer & Dornbusch, 1990).

The findings of this study also add to the growing literature on the processes through which authoritative parenting affects adolescent development. The mediating and moderating mechanisms examined in this research are worthy of final comment and further study. Authoritative parenting, a *style* of child rearing, has concrete behavioral manifestations, and it is through these concrete parenting behaviors that the style influences the child's behavior—this is the mediational process. Future research on authoritative parenting should examine other specific manifestations of the parenting style and their relation to various developmental outcomes.

Lest one conclude that one ought simply to study the concrete behaviors and forgo research on the parenting style, however, it is important to keep in mind the findings concerning the moderating role of parenting style on specific parenting behaviors. Although concrete parenting behaviors mediate the influence of the general parenting style, the general parenting style employed in the home moderates the influence of concrete parenting behaviors (see Darling & Steinberg, in press). Simply put, parental involvement in schooling is far more effective in the context of an authoritative home than in a nonauthoritative one. *How* parents express their involvement and encouragement may be as important as whether and to what extent they do.

References

- Baker, D. P., & Stevenson, D. L. (1986). Mothers' strategies for children's achievement: Managing the transition to high school. *Sociology of Education*, *59*, 156-166.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*, *75*, 43-88.
- Baumrind, D. (1978). Parental disciplinary patterns and social competence in children. *Youth and Society*, *9*, 239-276.
- Baumrind, D. (1991a). Parenting styles and adolescent development. In J. Brooks-Gunn, R. Lerner, & A. C. Petersen (Eds.), *The encyclopedia on adolescence* (pp. 746-758). New York: Garland.
- Baumrind, D. (1991b). Effective parenting during the early adolescent transition. In P. A. Cowan & E. M. Hetherington (Eds.), *Advances in family research* (Vol. 2, pp. 111-163). Hillsdale, NJ: Erlbaum.
- Becker, H., & Epstein, J. (1982). Parent involvement: A survey of teacher practices. *Elementary School Journal*, *83*, 85-102.

1280 Child Development

- Bogenschneider, K. (1990). *Maternal employment and high school achievement: Mediators, moderators, and developmental effects*. Unpublished doctoral dissertation, Department of Child and Family Studies, University of Wisconsin—Madison.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Darling, N., & Steinberg, L. (in press). Parenting style as context: An integrative model. *Psychological Bulletin*.
- Donovan, J., & Jessor, R. (1985). Structure of problem behavior in adolescence and young adulthood. *Journal of Consulting and Clinical Psychology, 53*, 890–904.
- Dornbusch, S., Carlsmith, J., Bushwall, S., Ritter, P., Leiderman, H., Hastorf, A., & Gross, R. (1985). Single parents, extended households, and the control of adolescents. *Child Development, 56*, 326–341.
- Dornbusch, S., Ritter, P., Leiderman, P., Roberts, D., & Fraleigh, M. (1987). The relation of parenting style to adolescent school performance. *Child Development, 58*, 1244–1257.
- Epstein, J. (1987). Parent involvement: What research says to administrators. *Education and Urban Society, 19*, 119–136.
- Golden, P. G. (1969). A review of children's reports of parental behaviors. *Psychological Bulletin, 71*, 222–235.
- Harter, S. (1982). The Perceived Competence Scale for Children. *Child Development, 55*, 195–213.
- Hetherington, E. M., & Clingempeel, G. (1989). *Coping with marital transitions: A family systems perspective*. Unpublished manuscript, Department of Psychology, University of Virginia, Charlottesville.
- Jessor, R., & Jessor, S. (1977). *Problem behavior and psychosocial development: A longitudinal study of youth*. New York: Academic Press.
- Lamborn, S. D., Mounts, N. S., Brown, B., & Steinberg, L. (in press). Family, peers, extracurricular participation, and part-time work: Influences on student engagement. In F. Newmann (Ed.), *Student engagement and achievement in American high schools*. New York: Teachers College Press.
- Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 62*, 1049–1065.
- Maccoby, E., & Martin, J. (1983). Socialization in the context of the family: Parent-child interaction. In E. M. Hetherington (Ed.), P. H. Mussen (Series Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (pp. 1–101). New York: Wiley.
- Moskowitz, D. S., & Schwarz, J. C. (1982). A validity comparison of behavior counts and ratings by knowledgeable informants. *Journal of Personality and Social Psychology, 42*, 518–528.
- Newmann, F. M. (1981). Reducing student alienation in high schools: Implications of theory. *Harvard Educational Review, 51*, 546–564.
- Patterson, G., & Stouthamer-Loeber, M. (1984). The correlation of family management practices and delinquency. *Child Development, 55*, 1299–1307.
- Patterson, G., & Yoerger, K. (April, 1991). *A model for general parenting skill is too simple: Mediation models work better*. Paper presented at the biennial meetings of the Society for Research in Child Development, Seattle.
- Rodgers, R. R. (1966). *Cornell Parent Behavior Description—An Interim Report*. Unpublished manuscript, Department of Human Development and Family Studies, Cornell University, Ithaca, NY.
- Ruggiero, M. (1984). *Work as an impetus to delinquency: An examination of theoretical and empirical connections*. Unpublished doctoral dissertation, University of California, Irvine.
- Schaefer, E. (1965). Children's reports of parental behavior: An inventory. *Child Development, 36*, 413–424.
- Schwarz, J., Barton-Henry, M., & Pruzinsky, T. (1985). Assessing child-rearing behaviors: A comparison of ratings made by mother, father, child, and sibling on the CRPBI. *Child Development, 56*, 462–479.
- Seginer, R. (1983). Parents' educational expectations and children's academic achievements: A literature review. *Merrill-Palmer Quarterly, 29*, 1–23.
- Sewell, W., & Hauser, R. (1980). The Wisconsin longitudinal study of social and psychological factors in aspirations and achievements. In A. Kerckhoff (Ed.), *Research in the sociology of education and socialization* (Vol. 1, pp. 59–100). Greenwich, CT: JAI.
- Spencer, M., & Dornbusch, S. (1990). Challenges in studying minority youth. In S. Feldman & G. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 123–146). Cambridge, MA: Harvard University Press.
- Steinberg, L. (1990). Autonomy, conflict, and harmony in the family relationship. In S. Feldman & G. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 255–276). Cambridge, MA: Harvard University Press.
- Steinberg, L., Dornbusch, S., & Brown, B. (in

- press). Ethnic differences in adolescent achievement: An ecological perspective. *American Psychologist*.
- Steinberg, L., Elmen, J. D., & Mounts, N. S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development*, **60**, 1424-1436.
- Steinberg, L., Mounts, N., Lamborn, S., & Dornbusch, S. (1991). Authoritative parenting and adolescent adjustment across various ecological niches. *Journal of Research on Adolescence*, **1**, 19-36.
- Stevenson, D. L., & Baker, D. P. (1987). The family-school relation and the child's school performance. *Child Development*, **58**, 1348-1357.
- Wehlage, G., Rutter, R., Smith, G., Lesko, N., & Fernandez, R. (1989). *Reducing the risk: Schools as communities of support*. London: Falmer.
- Weinberger, D., Tublin, S., Ford, M., & Feldman, S. (1990). Preadolescents' social-emotional adjustment and selective attrition in family research. *Child Development*, **61**, 1374-1386.

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.