Journal of Educational Psychology
1997, Vol. 89, No. 3, 411–419

0022-0663/97/$3.00

Student Motivation in Middle School: The Role of Perceived Pedagogical Caring

Kathryn R. Wentzel
University of Maryland College Park

This study examined adolescents' perceptions of pedagogical caring in relation to their motivation to achieve positive social and academic outcomes in middle school. A longitudinal sample of 248 students was followed from 6th to 8th grade. Perceived caring from teachers predicted motivational outcomes, even when students' current levels of psychological distress and beliefs about personal control, as well as previous (6th grade) motivation and performance, were taken into account. Eighth-grade students characterize supportive and caring teachers along dimensions suggested by N. Noddings (1992) and models of effective parenting (D. Baumrind, 1971). Teachers who care were described as demonstrating democratic interaction styles, developing expectations for student behavior in light of individual differences, modeling a "caring" attitude toward their own work, and providing constructive feedback. The implications for understanding links between teacher behavior and student achievement are discussed.

Why are some children eager to engage in classroom activities whereas others devalue and disengage from the learning process? Researchers of achievement motivation often attribute these distinct motivational orientations to intrapersonal cognitive processes (e.g., Bandura, 1986; Dweck & Leggett, 1988; Weiner, 1992; Wigfield & Eccles, 1992). Others have attributed a powerful role to teaching and instruction (e.g., Ames & Ames, 1984; Rosenholtz & Wilson, 1980; Slavin, 1987).

Of interest for the present research is that recent studies have linked interpersonal relationships between teachers and students to motivational outcomes (e.g., Birch & Ladd, 1996; Pianta, 1992; Wentzel & Asher, 1995). Explanations for why these noninstructional aspects of classroom life are related to student effort and engagement have not been well developed. However, several authors have suggested that feelings of belongingness and of being cared for can foster the adoption and internalization of goals and values of caregivers (Baumeister & Leary, 1995; Connell & Wellborn, 1991; Noddings, 1992). With respect to schooling, this explanation translates into the notion that students will be motivated to engage in classroom activities if they believe that teachers care about them.

According to Noddings (1992), the academic objectives of schools cannot be met unless teachers provide students with a caring and supportive classroom environment (see also Noblit, 1993). However, even the most basic questions concerning the influence of caring on student motivation have not been addressed empirically. For instance, to what extent do caring and supportive teachers motivate student behavior when other student characteristics are taken into account? If "caring" teachers do make a difference, then what makes a teacher an effective "caregiver" in the eyes of students?

The present study provides an initial attempt to address these questions by identifying characteristics of pedagogical caring in middle school and examining the relation of perceptions of caring teachers to young adolescents' motivation to achieve academic and social outcomes. Studies of teacher characteristics and teacher–student relationships have not been frequent with young adolescents in middle school. However, transitions from elementary to middle school often result in heightened levels of mistrust between teachers and students, student perceptions that teachers no longer care about them, and a decrease in opportunities for students to establish meaningful relationships with teachers (Eccles, 1993; Harter, 1996). Therefore, perceptions of caring from teachers might be a critical factor that motivates middle school students to engage in the social and academic activities of the classroom.

Two specific questions concerning teacher caring and student motivation were addressed: (a) To what extent do adolescents' perceptions of caring teachers predict efforts to achieve positive social and academic outcomes at school? and (b) How do middle school students characterize a caring, supportive teacher? With respect to the first question, perceptions of caring teachers were examined in relation to 8th graders' academic effort and pursuit of prosocial and social responsibility goals. These social and academic aspects of motivation are important in that the pursuit of goals to behave in prosocial and socially responsible ways has been related consistently and positively to academic motivation and performance as well as to social competence (Wentzel, 1991, 1993). Academic effort represents an important index of academic motivation (Maehr, 1984), as well as a significant predictor of grades and test scores (Wentzel, Weinberger, Ford, & Feldman, 1990).

In this study, students' perceptions rather than observers' or teachers' reports of caring were the focus of interest.

Correspondence concerning this article should be addressed to Kathryn R. Wentzel, Department of Human Development, Benjamin Building, University of Maryland, College Park, Maryland 20742. Electronic mail may be sent via Internet to kw52@umail.umd.edu.

Previous research has documented that correlations between adolescents' subjective reports of caregiving and observers' or parents' reports are typically weak or nonsignificant (Feldman, Wentzel, & Gehring, 1989). It is particularly important to note, however, that adolescents' perceptions of caregivers' behavior tend to be more powerful predictors of independent assessments of social and emotional outcomes than reports from other informants (Feldman et al., 1989). In light of these findings, students' subjective interpretations of teachers' behavior were the focus of interest in this study.

Teachers as Providers of Care and Support

Teachers are rarely mentioned by adolescents as having a significant or important influence in their lives (Galbo, 1984; Reid, Landesman, Treder, & Jaccard, 1989). Adolescents often rate teachers as providing aid and advice (Lempers & Clark-Lempers, 1992; Reid et al., 1989) but only as secondary sources relative to parents and peers (Furman & Buhrmester, 1992). In contrast, studies of social support provide evidence that perceptions of supportive teachers are related to student outcomes in important ways. Specifically, perceived support from teachers is a significant predictor of young adolescents' motivation and academic achievement (Felner, Aber, Primavera, & Cauce, 1985; Goodenow, 1993; Wentzel & Asher, 1995). Wentzel (1996) suggests that when perceived support from parents, peers, and teachers is considered jointly, perceived support from teachers has the most direct link to students' interest in school.

Although suggestive, these studies of perceived support from teachers are limited in their ability to shed light on relations between students' perceptions of caring teachers and classroom motivation. For instance, perceptions that teachers are supportive and caring might simply be a proxy for psychological well-being. Indeed, research on adults and older adolescents suggests that perceived social support is related to positive aspects of adjustment because it serves to alleviate or at least lessen the negative effects of stress (Cohen & Wills, 1985). It is possible, therefore, that students who perceive teachers to be supportive are motivated to do well simply because they experience less distress and negative affect when presented with academic and social challenges at school.

Other psychological variables also might explain links between perceived support from teachers and students' effort and engagement in the classroom. For example, as conceptualized by Connell and his colleagues (Connell, 1985; Skinner & Connell, 1986), perceived control is a belief about why events occur, with unknown reasons, internal, personal attributes, and powerful others being the primary sources of control. Of particular relevance for the present research is that internal control beliefs have been related positively to perceived social support (Lakey & Cassady, 1990). Research on college students also indicates that beliefs about control are related to how well students learn, regardless of the quality of instruction (Perry & Tuna, 1988). It is reasonable to expect, therefore, that students' beliefs that teachers are caring and supportive reflect, in part, their beliefs about personal control at school.

Finally, it is not clear whether students' perceptions of their teachers will be related to their classroom motivation when past levels of motivation and performance are taken into account. Is classroom motivation a fairly stable, internal student characteristic by the time young adolescents finish middle school, or can motivation change in response to feelings of being supported and cared for by teachers? The present study addressed this issue by using a longitudinal design, whereby relations between perceived caring from teachers and motivation in eighth grade were studied while controlling for previous levels of motivation and actual performance in sixth grade. To account for the possibility that perceptions of caring teachers are a proxy for other student characteristics, I also assessed students' psychological distress and control beliefs. Perceptions of caring teachers also might reflect actual classroom practices. Therefore, perceived caring in eighth grade was examined as a function of classroom teacher while controlling for previous perceptions of caring teachers.

Characteristics of Pedagogical Caring

A final issue that was addressed by the present study concerns what it means to be a teacher who "cares": What is it that students believe teachers do to communicate an ethic of care in their classrooms? Noddings (1992) suggested that caring teachers (a) model caring behavior to their students, (b) engage students in dialogues that lead to mutual understanding and perspective taking, and (c) expect as well as encourage students to do the best they can given their abilities. In the family socialization literature, models of effective caregivers also underscore the importance of modeling (Bandura, 1986), as well as democratic communication styles and expectations to live up to one's unique potential (Baumrind, 1971). In addition, socialization models stress consistent rule setting and structure, and expressions of warmth and approval as components of effective parenting (Baumrind, 1971, 1991; Grusec & Goodnow, 1994).

From the perspective of students, however, little is known about what constitutes effective caregiving in the classroom. When students complain, "Teachers don't care about me," are they voicing a need for a personal friend or, as the parenting literature might suggest, a need for more structure and guidance or perhaps more warmth and approval? To gain insight into this dimension of pedagogical caring in middle school, I asked students to generate characteristics of caring as well as uncaring teachers. Student responses were analyzed with respect to the five dimensions of effective caregiving as suggested by Noddings (1992) and the family socialization literature: modeling, democratic communication styles, expectations for behavior, rule setting, and nurturance.

Method

Participants

Eighth-grade students (N = 375) from a sixth- through eighth-grade suburban middle school in a mid-Atlantic state participated

in the study. A subset (n = 248) of these students were followed for 3 years, with initial data collection occurring at the end of their sixth-grade year. The longitudinal sample was composed of 125 boys and 123 girls; 92% were White, 2% Black, 2% Hispanic, 3% Asian American, and 1% other ethnic status. All students participated unless they were absent on the day the questionnaires were administered or parent permission was denied.

Procedure

All measures were administered by Kathryn Wentzel during regular class sessions. In sixth grade, students attending classes of all academic subjects were surveyed (17 classroom teachers); in eighth grade, students were surveyed during English class (3 classroom teachers). Students were told that all of their answers would be confidential and that they did not have to answer any of the questions if they did not want to. At both Time 1 (sixth grade) and Time 2 (eighth grade), teachers remained in their classrooms while students filled out the questionnaires. Data were collected from students in late spring. Achievement data were obtained from student files at the end of the sixth-grade academic year.

Measures

Background information. Students were asked to fill out a general information sheet at the beginning of the session, indicating their sex and ethnicity (White, African American, Hispanic, Asian, and other). Because the sample was predominantly White, race was not included as a variable in analyses.

Perceived caring from teachers. The present study used a measure of social support that focused specifically on the notion of caring (cf. Cauce, Felner, & Primavera, 1982). Perceived caring from teachers was measured in sixth and eighth grade by the Teacher Social and Academic Support subscales of the Classroom Life Measure (Johnson, Johnson, Buckman, & Richards, 1985). A sample item of the 4-item Teacher Social Support subscale is "My teacher really cares about me" (1 = *never*, 5 = *always*). The 4-item Teacher Academic Support subscale asks about perceived support for learning, such as "My teacher cares about how much I learn." Students were instructed to respond to the items with respect to their teachers in general, rather than with specific teachers in mind.

Social and academic caring scores were related significantly and positively (rs = .67 and .73, $p < .001$, in sixth and eighth grade, respectively) and therefore averaged to form composite scores. Cronbach alphas were .89 and .91, and means and standard deviations were 4.25 and .75 and 3.70 and .91, for perceived caring in sixth and eighth grade, respectively.

Psychological distress. Distress was measured with the Weinberger Adjustment Inventory—Short Form (Weinberger, Feldman, Ford, & Chastain, 1987). This scale contains 12 items that tap anxiety (e.g., "I worry too much about things that aren't important"), depression (e.g., "I often feel sad or unhappy"), low self-esteem (e.g., "I'm not sure of myself"), and low well-being (e.g., "I'm the kind of person who has a lot of fun"; reverse scored). Responses are made on 5-point scales, 1 = *false* and 5 = *true*, and then averaged to yield a distress score. Weinberger et al. reported that the items have an internal consistency of .87 and a 1-week test–retest reliability of .83. The mean and standard deviation for the present sample were 3.34 and 1.07, respectively.

Control beliefs. Self-reports were obtained using the cognitive subscales of Connell's (1985) Multidimensional Measure of Children's Perceptions of Control. The subscales assess three aspects of perceived control: (a) Unknown (e.g., "When I get a good grade in school I usually don't know why I did so well," 4 items); (b) Powerful Others (e.g., "When I do well in school, it's because the teacher likes me," 4 items); and (c) Internal (e.g., "If I want to do well in school, it's up to me to do it," 4 items). Responses are made on 4-point scales (1 = *not at all true* and 4 = *always true*).

Internal consistency (Cronbach's alpha) in the present sample was .67, .71, and .74 for the Unknown, Powerful Others, and Internal subscales, respectively. For Unknown control, M = 1.85 and SD = .59; for Powerful Others control, M = 1.88 and SD = .59; for Internal control, M = 3.32 and SD = .65.

Pursuit of social goals. Pursuit of social goals was assessed when students were in sixth as well as eighth grade. Prosocial goal pursuit was measured with a 3-item prosocial goal scale (Wentzel, 1994) that asks about efforts to share and help peers with academic problems. A sample item is "How often do you try to share what you've learned with your classmates?" At Time 1 (6th grade), M = 3.55 and SD = .75, Cronbach's α = .73; at Time 2 (8th grade), M = 3.16 and SD = .87, Cronbach's α = .78.

Social responsibility goal pursuit was assessed with a 3-item scale that asks how often students try to follow classroom rules. A sample item is "How often do you try to do what your teacher asks you to do?" At Time 1, M = 3.87 and SD = .81, Cronbach's α = .79; at Time 2, M = 3.64 and SD = .87, Cronbach's α = .81.

Academic effort. Academic effort also was assessed when students were in sixth and eighth grade. For each academic subject (English, mathematics, social studies, science), students were asked "How often do you really try in each of these classes?" and "How often do you really pay attention during each of these classes?" Responses were made on 5-point scales (0 = *never* to 4 = *always*). For each question, responses were averaged across the four subject areas. The correlations between the "try" and "pay attention" scores were .46 and .69, $p < .001$, for sixth and eighth grade, respectively. Consequently, composite academic effort scores were computed by averaging the two scores (M = 3.20; SD = .56 for 6th grade, and M = 3.02; SD = .65 for 8th grade).

Irresponsible and prosocial behavior. In sixth grade, irresponsible behavior was assessed using a peer nomination procedure (see Wentzel, 1991). Students were asked to indicate from lists of classmates who "breaks the rules, does things you're not supposed to." Because middle-school students do not stay with one group or in one classroom all day, and therefore come into contact with a large number of peers, it was necessary to create a list of names that did not require students to rate all of the children with whom they share classes. Sixth-grade students were organized into six instructional teams and attended classes consisting only of team members. Therefore, students were given lists of 25 names of same-sex classmates randomly selected from their team. Students were instructed to cross out the names of classmates they did not know. The random selection procedure resulted in each student rating a unique set of names and in each student receiving an average of 25 ratings. As such, randomly assigned and distinct sets of informants assessed classroom behavior. Students were asked to circle the names of the classmates on each list who fit the behavioral description; students could circle as many or as few names as they wanted.

For each student, an irresponsible behavior nomination score was calculated: The percentage of nominations each child received was computed by dividing the number of nominations each child received by the total number of times the child's name appeared on the nomination list and was not crossed out as someone unknown to the nominator. Then, to correct for nonnormal distributions, arc sin transformations were computed. Finally, scores were standardized within team.

To assess prosocial behavior, I asked students to nominate students in their class on the following characteristics: "Who

cooperates and shares?" and "Who helps other kids when they have a problem?" Scores were computed in the same way as irresponsible behavior scores. The two prosocial behavior scores were significantly related ($r = .47$, $p < .001$) and therefore averaged to form a composite score.

Academic achievement. End-of-year cumulative grade point average (GPA), based on averaged English, science, social studies, and mathematics final grades, was used as the index of achievement. Grades were obtained from student files at the end of their sixth-grade academic year and coded such that a failing grade equals 0 and an "A" = 4.00 ($M = 2.50$; $SD = .89$).

Characteristics of caring teachers. On a sheet of paper titled, "Who Cares?", students were asked "How do you know when a teacher cares about you? List three things that teachers do to show that they care about you." Underneath, students were asked "How do you know when a teacher does not care about you? List three things that teachers do to show that they don't care about you."

Results

Does Perceived Caring From Teachers Predict Students' Pursuit of Social Goals and Academic Effort?

Correlations. Zero-order correlations are shown in Table 1. Perceived caring from teachers was related significantly and positively to students' pursuit of prosocial and social responsibility goals and to students' academic effort. Perceived caring also was related significantly and positively to internal control beliefs and negatively to powerful other and unknown control beliefs, and to students' reports of distress. Finally, sixth-grade prosocial goal pursuit and prosocial behavior were related significantly to eighth-grade prosocial goal pursuit; sixth-grade social responsibility goal pursuit and irresponsible behavior were related significantly to eighth-grade social responsibility goal pursuit; and sixth-grade academic effort and GPA were related significantly to eighth-grade academic effort.

Gender differences. Mean differences as a function of gender also were examined with a series of one-way analyses of variance (ANOVAs). Significant differences were found for perceived caring from teachers, $F(1, 374) = 4.13$, $p < .05$; distress, $F(1, 374) = 3.72$, $p < .05$; pursuit of prosocial goals, $F(1, 374) = 10.95$, $p < .001$; pursuit of social responsibility goals, $F(1, 374) = 4.14$, $p < .05$; and GPA, $F(1, 374) = 44.62$, with girls having significantly higher scores than boys. Boys were significantly more likely to report higher levels of control by powerful others than were girls, $F(1, 374) = 4.97$, $p < .05$. Significant gender differences in unknown and internal control beliefs, and academic effort were not found. Given these findings, subsequent analyses controlled for the potentially confounding influence of gender.

Regression analyses. A series of hierarchical regression analyses were conducted to examine relations between perceptions of teacher caring and motivation outcomes, when controlling for student characteristics, previous motivation, and previous academic and behavioral competence. For each model, Time 1 variables were entered first, students' gender, distress, and control beliefs were entered second, and the perceived caring variable was entered last.

As shown in Table 2, perceived caring accounted for a

Table 1
Intercorrelations Among Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. T2 Prosocial goal pursuit	—												
2. T2 Responsibility goal pursuit	.50***	—											
3. T2 Academic effort	.46***	.67***	—										
4. T2 Perceived teacher caring	.39***	.45***	.36***	—									
5. T2 Distress	.04	−.10*	−.13**	−.23***	—								
6. T2 Internal control	.21***	.25***	.26***	.27***	.01	—							
7. T2 Powerful others control	−.13**	−.35***	−.32***	−.25***	.22***	−.18***	—						
8. T2 Unknown control	−.10*	−.34***	−.25***	−.22***	.26***	−.04	.46***	—					
9. T1 Prosocial behavior	.18***	.07	.09	.14**	.01	.02	−.08	−.08	—				
10. T1 Prosocial goal pursuit	.32***	.19***	.16**	.20**	−.04	−.07	−.05	−.13*	.16***	—			
11. T1 Irresponsible behavior	−.08	−.10*	−.03	−.12*	−.13*	.01	.05	.08	−.23***	−.12**	—		
12. T1 Responsibility goal pursuit	.18***	.30***	.34***	.20**	.02*	−.11*	−.12*	−.20***	.18***	.34***	−.38***	—	
13. T1 Academic effort	.17***	.21***	.33***	.13**	−.07	−.11*	−.22***	−.19***	.19***	.35***	−.31***	.59***	—
14. T1 Grade point average	.17***	.15***	.18***	.18***	−.04	.04	−.16**	−.22***	.44***	.13**	−.48***	.23***	.36***

Note. T1 = Time 1 (sixth grade); T2 = Time 2 (eighth grade).
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 2
Predictors of Social Goal Pursuit and Academic Effort: Multiple Regressions

Predictor	Prosocial goal pursuit β	Prosocial goal pursuit ΔR^2	Responsibility goal pursuit β	Responsibility goal pursuit ΔR^2	Academic effort β	Academic effort ΔR^2
Step 1		.13***		.07***		.14***
T1 Motivation	.26***		.19**		.19**	
T1 Behavior	.02		.13*		.09	
Step 2		.09***		.26***		.19***
Sex	.14*		.09		−.01	
Internal control	.09		.16*		.17**	
Powerful others control	−.06		−.14*		−.20**	
Unknown control	−.02		−.23***		−.05	
Distress	.04		.10		.04	
Step 3		.07***		.09***		.07***
Teacher caring	.31***		.34***		.31***	
Total		.29***		.42***		.40***

Note. Standardized beta weights at the last step are shown. Time 1 (T1; sixth grade) motivation variables were prosocial goal pursuit, social responsibility goal pursuit, and academic effort. Time 1 behavior variables were prosocial behavior, irresponsible behavior, and grade point average.
$^*p < .05$. $^{**}p < .01$. $^{***}p < .001$.

significant increment to R^2 in each model when added at the last step—$\Delta R^2 = .07$, $F(1, 166) = 8.82$, $p < .001$ for prosocial goal pursuit; $\Delta R^2 = .09$, $F(1, 166) = 15.19$, $p < .001$ for responsibility goal pursuit; and $\Delta R^2 = .07$, $F(1, 166) = 14.79$, $p < .01$ for academic effort). In other words, change in students' motivation from sixth to eighth grade could be explained in part by students' perceptions of their eighth-grade teachers, even after past behavior, students' gender, psychological distress, and control beliefs were taken into account.

Standardized beta weights for each variable at the last step of each model also are shown in Table 2. Perceptions of caring from teachers were a significant, independent predictor of each motivation outcome when all other variables were taken into account.

Classroom Effects

The focus of this research was on students' perceptions of teacher caring. It is possible, however, that classroom teacher effects might explain students' perceptions. To examine this possibility, I analyzed eighth graders' perceptions of teacher caring as a function of classroom teacher while controlling for perceptions of teacher caring in sixth grade. Results of an analysis of covariance (ANCOVA) indicated that teacher effects were nonsignificant, $F(2, 110) = 1.94$. Therefore, changes in perceived teacher caring from sixth to eighth grade could not be attributed to attending classes with one of the three eighth-grade English teachers.

What Makes a Teacher an Effective Caregiver?

The larger group of 375 eighth graders provided information concerning characteristics of caring teachers. Responses to the "Who Cares?" questionnaire were coded initially into six categories: modeling, democratic interactions, expectations for behavior, nurturance, rule setting, and other. On the basis of the frequency and content of responses, within-category distinctions were made. For caring and uncaring characteristics, expectations for behavior was subdivided into expectations for the student as a person and as a learner, and democratic interactions was subdivided into communication style and equitable treatment and respect. Full descriptions and examples of responses representing each category are shown in Table 3. Inter-rater agreement was 97% for caring categories and 95% for the uncaring categories; agreement was based on 8% of responses.

The percentage of responses for each category also are shown in Table 3. The largest percentage of responses characterizing caring and uncaring teachers pertained to expectations for behavior (43% for caring teachers and 28% for uncaring teachers) and democratic interactions (20% for caring teachers and 43% for uncaring teachers). Students did not mention rule setting and consistent enforcement of rules as characteristics of caring or uncaring teachers.

Discussion

This research was designed to answer two questions: (a) To what extent do adolescents' perceptions of caring from teachers predict efforts to achieve positive social and academic outcomes at school? and (b) How do middle-school students characterize a caring, supportive teacher? Results suggest that perceptions of caring teachers are related to students' academic efforts and to their pursuit of prosocial and social responsibility goals. These relations were robust when students' previous motivation and performance, and current control beliefs and distress were taken into account. When asked to describe teachers who care, students generated responses that correspond closely to dimensions of effective parenting. Teachers who care were described as demonstrating democratic interaction styles,

Table 3
Students' Responses: Teachers Who "Care" and "Do Not Care"

Description of categories and examples	% of responses: Teachers who care	% of responses: Teachers who do not care
Modeling		
Focus is on indications that the teacher cares about teaching.	23	7
Caring examples: makes a special effort, teaches in a special way, makes class interesting		
Not caring examples: doesn't care about your grades, teaches a boring class, gets off task, teaches while students aren't paying attention		
Democratic interactions		
Communication style: Focus is on the act of communication itself. Responses reflect that lines of communication are open and reciprocal rather than the content of communication.	16	31
Caring examples: talks to you, pays attention, asks questions, listens		
Not caring examples: screams, yells, ignores, interrupts		
Equitable treatment and respect: Focus is on honest and fair treatment, as well as keeping promises.	4	12
Caring examples: trusts me, tells you the truth		
Not caring examples: embarrasses, insults, picks		
Expectations based on individuality		
Student as a person: Focus is on a recognition of student's individuality, and concern with the student's nonacademic functioning.	13	4
Caring examples: asks what's wrong, talks to me about my problems, acts as a friend		
Not caring examples: forgets name, doesn't ask why I'm sad, does nothing when I do something wrong		
Student as a learner: Focus is on a recognition of the student as having unique academic skills, problems, and contributions to make to the class.	30	24
Caring examples: asks if I need help, takes time to make sure I understand, calls on me		
Not caring examples: doesn't explain things or answer questions, doesn't try to help you		
Nurturance		
Focus is on teacher's informal and formal evaluations of student work.	10	12
Caring examples: checks work, tells you when you do a good job, praises me		
Not caring examples: sends to office, gives bad grades, doesn't correct work		
Other: Vague answers ("nice to me, helps me"), all references to personal attributes, or responses that do not fit into the other categories.	5	11

Note. $N = 375$. Percentage for each of the caring and not caring response sets was based on a total of 1,125 responses (three characteristics for each category were obtained from each student).

developing expectations for student behavior in light of individual differences, modeling a "caring" attitude toward their own work, and providing constructive feedback.

Significant relations between perceived caring from teachers and students' efforts to achieve academic as well as social outcomes raise important issues concerning the role of social factors in explaining students' motivation to achieve. For the most part, current theories of motivation focus on variables that describe the psychological functioning of a student, such as goal orientations (e.g., Dweck & Leggett, 1988), beliefs about ability (e.g., Bandura, 1986), and beliefs about control (Weiner, 1992). In a related vein, student motivation also has been attributed to relatively objective aspects of teaching and instruction. For instance, researchers have documented significant relations between classroom reward structures (Ames & Ames, 1984), classroom organization (e.g., Rosenholtz & Wilson, 1980; Slavin, 1987), and the curriculum (e.g., Renninger, Hidi, & Krapp, 1992) on the one hand, and student motivation and academic work on the other.

The results of the present study, however, suggest that models of motivation based on psychological or instructional variables be extended to include students' perceptions of relationships with others, especially perceptions that

teachers care about them. Although this work has begun (e.g., Birch & Ladd, 1996; Connell & Wellborn, 1991; Harter, 1996; Pianta, 1992), the processes that underlie significant relations between perceptions of caring teachers and students' motivation are not well understood. Until experimental interventions provide evidence of cause–effect relations, the present findings must be interpreted with caution. However, changes in students' motivation from sixth to eighth grade were explained, in part, by eighth graders' perceptions of their teachers. Therefore, the results of the present study provide strong evidence in support of the notion that students are more likely to engage in classroom activities if they feel supported and valued.

What makes students feel valued? Students' descriptions of teachers who care and do not care provide some insight. Recall that students described caring teachers as providers of very specific types of support; students' responses could be coded reliably along dimensions of modeling, expectations based on individual differences, democratic interactions, and nurturance.

Although speculative, the potentially positive impact of each of these teacher characteristics on student motivation could be explained in light of the literature on intrapersonal aspects of motivation. For instance, communicating expectations that students' behavior will reflect their best intentions and abilities should teach students to attribute their behavior to internal, controllable causes (a desirable attributional style; see Weiner, 1992). Providing opportunities for autonomous decision making and democratic interaction styles should foster the development of positive beliefs about personal autonomy and competence (see Ryan & Powelson, 1991). Finally, nurturance and approval should promote the development of positive feelings of self-worth (see Covington, 1992). These linkages between teacher behavior and student outcomes require systematic investigation. However, identification of noninstructional teacher characteristics that correspond to the development of students' motivational belief systems could provide valuable information for the improvement of classroom practice and the development of positive motivational orientations toward school.

The descriptive data also provide initial evidence that models of effective caregiving in the home can be generalized to the study of effective caregiving at school. In particular, they suggest that socialization processes known to result in the internalization of parental goals and values might also motivate students to pursue goals that are valued by adults at school (see also Eccles, 1993; McCaslin & Good, 1992). More focused investigations concerning the continuity of caregiving across home and school contexts is clearly needed in this regard. For instance, lack of common understanding among parents, teachers, and students concerning what it means to care might explain why some students become alienated and disengaged from the educational process.

The results of this study are intriguing in that much of the previous research linking the perceived availability of supportive adults to positive academic outcomes in middle school has been conducted with minority, inner-city, or low-achieving students (e.g., Cauce, Felner, & Primavera, 1982; Felner et al., 1985; Phelan, Davidson, & Cao, 1991). Therefore, this study adds to this work by suggesting that perceptions of supportive and caring relationships with teachers are important regardless of students' race or family background. However, Steinberg, Dornbusch, and Brown (1992) report that adolescents' perceptions of parenting dimensions similar to those highlighted in the present study predict positive school-related outcomes for White, middle-class children but not for Hispanic and African American adolescents. Therefore, the generalizability of the findings concerning characteristics of caring teachers to minority populations needs to be examined in future research.

Finally, might other processes explain these findings? One possibility is that students' perceptions of caring reflect general levels of social competence and the ability to form positive relationships with others. A recent study by Wentzel and Asher (1995), however, indicates that students without friends but who are well liked by teachers are highly motivated to achieve academically. Therefore, if positive interpersonal skills can explain the present findings, those skills that promote and sustain adult–child relationships rather than peer relationships are probably most relevant (see Montemayor et al., 1994).

Future research might profit by focusing on identifying additional student characteristics that predispose students to perceive teachers as caring or uncaring. The literature on peer relationships suggests that children who are socially rejected tend to believe that others are out to harm them when, in fact, they are not (Dodge & Feldman, 1990). Over time, these children develop relationships with their peers marked by mistrust and hostility. Similar research has not been conducted on student–teacher relationships. However, it is possible that students who believe that teachers do not like them or care about them might also be perceiving and interpreting these adult relationships in ways that are biased and unfounded. If true, then efforts to promote perceptions that teachers care are likely to be most successful if students are the primary target of intervention.

A limitation of this study is that students were not asked to respond with specific teachers in mind but rather about general perceptions that teachers care about them. Ethnographic research has documented the unique characteristics of caring classroom teachers and has highlighted the necessity of individualized attention to student needs in demonstrations of care (Noblit, 1993). Given this work, future studies also would benefit from assessments that focus on students' perceptions of specific teachers or on differences in student perceptions across multiple classrooms. The influence of teachers' beliefs about caring on their classroom practice and on subsequent student behavior also deserves careful attention.

In their review of the literature on teacher behavior and student achievement, Brophy and Good (1986) observed that "despite the importance of the topic, there has been remarkably little systematic research linking teacher behavior to student achievement" (p. 329). In their conclusions, they suggested that social and motivational outcomes need to be included in research on the role of teachers in students' lives. The results of the present study provide clear support

for continued work in this area, especially with respect to ways in which students come to understand and appreciate what teachers do.

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Received June 5, 1996
Revision received October 30, 1996
Accepted October 30, 1996 ■