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Illuminating Adolescent Voices: Identifying High School Students' Perceptions of Teacher Caring

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Introduction

Currently, one of our nation's most pressing challenges in its tapestry of diverse schools is to narrow the achievement gap and decrease the dropout rate "in light of current national reform efforts to achieve high academic standards, end social promotion, and ratchet up educational accountability" (Christenson & Thurlow, 2004, p. 36). For example, according to a report published by Diplomas Count 2008, 1.23 million students will not attain a high school diploma and a majority of those students are African-American, Hispanic, and Native American students. Worse, almost 50% of Black, Hispanic, and Native American male students fail to graduate from high school (Orfield, Losen, Wald, & Swanson, 2004).

Even though some experts acknowledge that risk factors such as poverty, teen pregnancy, substance and physical abuse, peer pressure, and family support may contribute to student disengagement at school, institutional practices such as segregation by ability, an ineffectiveness of teachers to connect with students, and students' perceptions that teachers are uncaring individuals also contribute to students' negative disposition towards learning. In fact, one of the reasons students leave school before graduating, is boredom and an unchallenging curriculum (Hansen & Toso, 2007). "Students are well aware of the teaching and learning disparities that exist in their classes" (Futrell & Gomez, 2008, p. 76), and as a result, many find themselves navigating systemic hurdles hoping to be educated.

Furthermore, when genuine teacher/student interactions are disapproving or non-existent, students may feel insignificant and valued less than some of their peers. "As educators we all care for our students, but the potential of caring is influenced by our own experiences and espoused pedagogical beliefs. While we may perceive our actions and disposition as caring," students' interpretations may differ (Garza, 2006, p.15). In one study, Thompson (2007) invited teachers and high school students to respond to questions about caring. While most teachers reported caring about their students, nearly 40% of the student respondents were in disagreement, illustrating the complex nature of caring. As many students continue to face negative experiences and a lack of caring and meaningful relationships with school personnel, their motivation to attend school becomes futile and too often just give up (Epstein, 1992; Hansen & Toso, 2007). At the same time when schools and teachers are held accountable for the academic success of their students, the issue of caring for students who are academically, linguistically, culturally, and economically unique, cannot be ignored. Previous research suggests that students' decision to remain in school is influenced by caring teachers and highly regarded relationships (Anness, 2003; Knesting, 2008; Lee & Burkham, 2003; McMillan & Reed, 1994; Wilson, 2007). A caring demeanor is critical, "especially for culturally diverse students who may be at risk of failing or who may be disengaged from schooling" (Perez, 2000). While it is common to read about the success of reform initiatives implemented in schools across the nation, the dropout rate has increased at an alarming rate (Price, 2008). Therefore, knowing how to improve educational experiences for students through the construct of caring, especially those who are often disconnected from access to an equal education, may be one way to decrease the dropout rate institutionally.

McMillan and Reed (1994) agree that “positive experiences in school help provide students a sense of belonging, bonding, and encouragement” (p. 140) and “often make the difference between positive school experiences and frustration or alienation” (Chaskin & Rauner, 1995, pp. 667-668). Therefore, in this paper the researchers focus on the identification of high school students’ perceptions of teacher behaviors that convey caring. Considering the national high drop-out rate, especially for students of color, and the fact that the participants in our study attended a suburban high school with a population of more than 50% Latino, our study expands on the notion of caring by identifying the most important behaviors perceived by high school students.

Perspectives on the Caring Ethos

The ethic of caring involves a relationship between someone who cares for another (Blustein, 1991; Mayeroff, 1971; Noddings, 1984; Noddings, 2005). While researchers agree that caring is key in establishing a relationship, their definition differs. According to Noddings (1984; 2005) caring is reciprocal. The person cared for must acknowledge the act of being cared for in order to form a relationship. Diero (2003) contends that “caring in and of itself, implies a relationship, but appropriate caring in teacher-student relationships is demonstrated differently from caring in other types of relationships” (p. 60). According to Mayeroff (1971), caring is a process that includes getting to know the other, reflecting on prior behavior, and patience, honesty, and humility, and trust. Unlike Noddings (2005) who believes caring must be reciprocal in nature, Mayeroff asserts that caring is not always a mutual act. Similarly, Bluestein (1991) recognizes that a relationship consists of certain roles that may not include reciprocal behaviors. For instance, a teacher-student relationship can be described in terms of a role where the teacher is expected to care for students as part of his or her professional job responsibility.

A significant body of research identifies caring as a factor in fostering relationships with students (Baker, 1999; Ladson-Billings, 1994; Scales & Taccogna, 2000; Stanton-Salazar, Vasquez, & Mehan, 2000) addressing student needs in a culturally responsive manner (Gay (2000) listening to students (Alder, 2002; Hayes, Ryan, & Zseller, 1994; Nelson & Bauch, 1997; Nelson, Lott, & Glenn, 1997; Noddings, 2005; Wentzel, 1997) or providing appropriate scaffolds for students to be successful (Nieto, 2004). Although the construct of caring has been linked to success, high school students’ conceptions are limited. While caring appears to be a part of existing instruments, the current study contributes to those instruments by focusing exclusively on caring. This gap coupled with the varying conceptions of caring inspires us to describe how caring is perceived by high school students and to respond to McBee’s (2007) question, “How can we give it form?” (p. 35).

Previous studies highlighting caring have established agency for at-risk adolescents’ voices in the literature. Most recently, Knesting (2008) interviewed 17 students (African-American and White) in grades 9-12 (ages 15-19) who were at risk of leaving school. Findings revealed that students were more likely to stay in school when they perceived teachers as caring. Teacher caring was demonstrated by behaviors that enhanced students’ potential, fostered their self-esteem, valued their opinions, and respected them as individuals. In a similar study, Geary (1988) interviewed 35 African-American sophomores and juniors at an all Black inner city high school. Findings suggested that school success was facilitated by a teacher who was perceived as caring, available, understanding, encouraging, respectful, listening, and having a sense of humor. In a larger study, Coburn and Nelson (1989) surveyed more than 300 Native-American high school students in Washington, Montana,

Oregon, and Idaho. These students cited influential teachers as having the following characteristics: respectful, caring, listening, conveying a positive attitude, providing assistance readily, encouraging, available, engaging the student in the learning process, and affirming students positively.

Other studies have suggested interventions to help gifted students stay in school such as improving student-teacher relationships, by building students' self-esteem, conveying a positive attitude, and validating them as individuals (Kitano & Lewis, 2005). Caring relationships were especially viewed as a positive intervention approach for students who may turn to at-risk behaviors (Voisin et al., 2005). According to Bell (2003) "Once you demonstrate caring, you can then take your teaching to the highest level: inspirational teaching" (p. 34). For instance, in a comparative case study of 35 gifted 9th and 10th grade students in an urban high school, Reis, Colbert, and Hébert (2005) identified factors that contributed to students' underachievement. Caring educators and challenging instruction were cited as critical to their success in school. In contrast, Hansen & Toso (2007) surveyed 14 gifted students who had dropped out of school. These students reported the following reasons for not graduating: no sense of belonging, limited positive bonds with educators, undemanding class instruction, and feeling disrespected and misunderstood. Furthermore, Coley (1995) analyzed data from the National Center for Education Statistics to identify factors that contributed to the drop-out rate in the United States. He reported that more than 43% of students left school because they disliked school; less than 40% cited getting unsatisfactory grades; more than 25% stated strained relationships with teachers; and less than 25% lacked a sense of belonging in school.

The purpose of the current study was to identify teacher behaviors that secondary students perceived as demonstrating caring. The questions that guided this inquiry were (a) what teacher behaviors do high school students perceive as caring? and (b) what teacher behaviors do high school students perceive as the most important aspects of caring? Whereas previous studies clearly have documented the power and influence of caring teachers on adolescents' success, we posit that knowing what students perceive as caring behaviors can be used as a springboard to shape the context of caring for all students, especially those who are marginalized, feel disenfranchised, and most at risk of dropping out of school.

Methods

A mixed-methods research design guided the collection and analysis of qualitative and quantitative data. Qualitative data collection included (1) teacher interviews, (2) field notes from classroom observations, (3) and student questionnaires. As reported in a previous paper, the three data sources were analyzed independently using qualitative data reduction strategies in order to manage, categorize, and interpret data to identify themes (Marshall & Rossman, 1995). These themes were used to write items to reflect a single and unambiguous idea in each of the three subscales of the Perceptions of Teacher Caring instrument. Quantitative data collection and analysis included two pilot tests conducted to select the final items for the scale.

Participants

All participants in this study were from the same large suburban high school in the southern part of the United States (population, 54% Latino, 42% White, and 4% African-American students). Table 1 provides demographic characteristics of the students included in this study.

Table 1
Demographic Characteristics of Participants (N = 977)

Characteristics	n	%
Ethnicity		
Asian or Asian American, including Chinese, Japanese and others	13	1
Black or African American	25	3
Hispanic, Latino, Chicano, including Mexican American, Central American, South American, and others	349	36
White, Anglo, European American	450	46
American Indian/Native American	15	2
Mixed; parents are from two different ethnic groups	108	11
Other	15	2
Missing	2	
Gender		
Male	461	48
Female	508	52
Missing	8	
Grade		
Freshman	294	30
Sophomore	278	28
Junior	171	18
Senior	234	24
Age		
13	5	1
14	231	24
15	274	28
16	205	21
17	225	23
18	36	4
Missing	1	

Qualitative Item Development

First, the recorded teacher interviews were transcribed and each teacher was assigned a pseudonym. Before beginning the coding process, the transcriptions were reviewed to validate information on the recordings (Poland, 1995). Then the transcriptions were read again and phrases or words related to caring for students and ways the teacher fostered a caring environment were highlighted as a way to “search through the data for regularities and patterns as well as for topics the data covers, and write down words or phrases related to the topic” (Bogdan & Biklen, 1992, p. 166). Open-coding was used to sift through the data analytically and to reduce the concepts further and identify their properties (Rubin & Rubin, 1995; Strauss & Corbin, 1990). When the coding was complete, the data were grouped into categories; then through constant comparative analysis (Glaser & Strauss, 1967; Strauss & Corbin, 1998) the categories were further sorted and reduced with descriptive statements taken from the interview transcriptions. According to Rubin and Rubin (1995) identifying themes in verbal communication is important because behavioral descriptions can be very revealing.

Next, using the same aforementioned process, the field notes were coded from the classroom observations to examine regularities and patterns in the themes (Feagin, Orum, & Sjoberg, 1991). Using constant comparative analysis and axial coding (Charmaz, 2006), the separate categories were

sorted, and placed into subcategories. "Axial coding relates categories to subcategories, specifies the properties and dimensions of a category, and reassembles the data to give coherence to the emerging analysis (Charmaz, 2006, p. 60).

Finally, 83 student questionnaires were analyzed for recurring patterns through constant comparative analysis (Strauss & Corbin, 1998). Student responses to the open-ended questions were labeled across ethnic groups separately during an initial reading and the first author made notes as the data were interpreted. Next, Latino and White ethnic groups were compared for emerging categories with the list generated from the interviews and observations and further reduced the categories using axial coding (Charmaz, 2006). Comparing initial codes and notes to generate an initial list of recurring themes allowed for a deeper analysis of the data. To ensure inter-coder reliability a few non-participating researchers reviewed, refined, and provided feedback on the initial coding and themes. Using their feedback, the data was further sorted into a list of 42 items rated on a 4-point Likert scale, with 1 = not at all important and 4 = very important.

First Pilot Test

The purpose of the first pilot testing was to determine which of the 42 teacher caring behaviors high school students perceived as most important to them. Forty-four high school students participated in pilot-test one. The participants were given a packet that included a scan form and the scale with directions for its completion. The first and third authors conducted all pilot testing. The directions explained the study's purpose, provided an example of how to respond to each item, and provided the labels for the Likert scale. After reading the directions aloud, the investigators explained to the participants how to complete the scan form, which was used to collect demographic information and item responses. Upon completion of the scale, the scan forms were collected and scanned. The resulting raw data file was converted to SPSS and SAS data files.

To select items to keep for pilot-test two, we rank-ordered the 42 items in terms of importance for Latino students, White students, and all students. We wanted to keep items that both groups of students thought were important caring behaviors for teachers to exhibit. We also conducted an item analysis to determine which items were optimally discriminating. Based on these two procedures we reduced the scale to 32 items. The reliability coefficients for the 32 items we used in pilot test 2 were .92 for Latino and .94 for White students.

Second Pilot Test

Although 1,040 students initially participated in pilot test two, only 977 had complete data and are included in this study. We recruited students from all grades because we wanted the scale to work with all high school students and used the same data collection procedures as in pilot test one. The students, representing low- to middle-income socioeconomic status, completed a prompt on the questionnaire to self-disclose their academic ranking.

Item Refinement

Drawing from the first author's previous work (Author; Author) of high school students' perceptions of teacher behaviors that demonstrated caring, an item pool was developed to measure teachers' caring behaviors. The development of the Perceptions of Teacher Caring (PTC) followed these steps: (a) item

development and refinement, (b) pilot-testing of the items, and (c) psychometric analyses consisting of item analysis, scale reliability, confirmatory factor analysis, and validity studies.

We generated a new random variable using a Bernoulli distribution to select approximately 50 percent of the sample to use in an oblique (i.e., correlated factors) exploratory factor analysis using maximum likelihood estimation. We used the results of the exploratory factor analysis and our qualitative analyses to ascertain which items loaded on each latent construct.

For data screening purposes associated with the exploratory factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were examined. A KMO statistic between 0 and 1.0 indicates that the degree of common variance among the items is good and that the data would likely factor well; for the PTC the KMO was .93. Bartlett's test of sphericity is used to examine the hypothesis that the variables are uncorrelated in the population. Bartlett's test was statistically significant indicating the correlation matrix was not an "identity" (i.e., variability in the matrix displayed adequate variation) thereby substantiating the tenability of conducting factor analysis.

Results of the factor analysis revealed that the three factor model best fit the data. Based on the factor loadings we eliminated four additional items that were not correlated with any of the three factors. The resulting 28 items (Appendix B) loaded as follows: factor 1 consisted of 15 items, factor 2 consisted of 6 items, and factor 3 consisted of 7 items. An examination of the items by factor suggested that the PTC was comprised of the following three subscales: Validating Student Worth, Individualizing Academic Success, and Fostering Positive Engagement.

The factor pattern loadings for factor 1 ranged from .330 to .765, factor 2 ranged from .365 to .871, and factor 3 ranged from .334 to .810. Table 2 provides the factor loadings for the final 28 items.

Table 2

Summary of Items and Factor Loadings for Oblique Three Factor Solution for the Perceptions of Teacher Caring

Item	Factor Loading		
	1	2	3
7	.749	-.027	-.026
11	.733	-.059	-.092
3	.725	.89	-.239
8	.715	.150	-.136
12	.689	-.134	.135
9	.671	.071	-.055
6	.664	-.089	.065
15	.612	-.265	.191
4	.559	-.031	.028
5	.557	.035	.179
1	.468	.165	-.017
14	.381	.153	-.003
2	.379	.125	-.023
13	.377	.169	.059
10	.341	-.049	.147
22	-.101	.846	-.052
19	-.066	.808	-.047
16	-.006	.707	-.116
17	.017	.529	.122
18	.147	.478	.060
21	.126	.360	.225
25	-.190	-.069	.825
27	.057	.000	.601
26	-.042	.349	.462
24	.237	-.082	.400
28	.208	.069	.366
23	.141	.185	.356
20	.279	.241	.285

Note. Boldface indicates highest factor loading.

Results of the Psychometric Analyses

Data Screening

Data were screened for the requisite assumptions associated with each statistical procedure prior to analysis. These included screening for univariate and multivariate non-normality, univariate and multivariate multicollinearity, and homogeneity of covariances. We screened for univariate non-normality by examining each variable for skewness and kurtosis using cut-offs of -2 to 2 for skewness and -3 to 3 for kurtosis. All skewness and kurtosis levels were well within the cut-offs, and most values fell within ± 1.0 . Mardia's test of multivariate kurtosis was used to check for multivariate normality, which was 66.2. This suggests that the data were multivariate non normal. Univariate multicollinearity was tested by screening for large bivariate correlations; a cut-off of $r \geq .85$ was used. Correlations ranged from -.06 to .61 indicating no evidence of excessive univariate collinearity. Multivariate multicollinearity was assessed using Tolerance and VIF with tolerance values $> .10$ and VIF values < 10 suggesting no multivariate multicollinearity. Tolerance values ranged from .476 to .762 and VIF values ranged from 1.31 to 2.07 indicating a lack of multivariate multicollinearity. Finally, we screened for homogeneity of covariances using Box's M test for a study of group differences, which was conducted for validation purposes. To conduct this study, we first created three subscales (Validating Student Worth, Individualizing Academic Success, and Fostering Positive Engagement) by summing across items and

used these as dependent variables in a multivariate analysis of variance. Box's M test was 9.31 which was not statistically significant indicating the covariances across the three subscales were homogeneous.

Item Analysis

An item analysis was conducted to determine if our final 28 items were optimally discriminating and if the subscales demonstrated good internal consistency. Item discrimination coefficients were observed to be moderate to high ranging from .326 to .617 and internal consistency reliability for each of the three subscales was assessed using Cronbach's coefficient alpha. Table 3 provides the means, standard deviations, reliability coefficients, and number of items in each subscale.

Table 3
Scale Means, Standard Deviations, and Cronbach's Alpha Reliability

Subscales	Mean	SD	Alpha	Items (n)
Validating Student Worth	48.51	7.88	.89	15
Individualizing Academic Success	14.26	3.94	.81	6
Fostering Positive Engagement	20.66	4.27	.80	7

Confirmatory Factor Analysis

We conducted a confirmatory factor analysis using Mplus 4.2 to evaluate the adequacy of the fit of the model to the observed data. Due to the tentative results of the data screening procedures regarding multivariate non-normality and because the data do not meet the requisite assumptions as being on an interval-level scale of measurement, we used a factor analytic method that was robust to violations of these assumptions. Specifically, we applied the weighted least squares robust estimation method for parameter estimation (i.e., factor loadings), and an oblique rotation thereby allowing the three factors to correlate. The intercorrelation matrix variances of the 28 items is presented in Table 4.

Table 4
Correlations for the PTC Items

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.0																						
2	.37	1.0																					
3	.24	.20	1.0																				
4	.35	.43	.17	1.0																			
5	.31	.41	.15	.39	1.0																		
6	.20	.19	.15	.18	.37	1.0																	
7	.34	.42	.30	.35	.34	.24	1.0																
8	.37	.56	.16	.55	.42	.23	.43	1.0															
9	.25	.25	.27	.25	.29	.25	.28	.32	1.0														
10	.37	.31	.33	.23	.30	.26	.27	.35	.41	1.0													
11	.23	.23	.06	.28	.28	.22	.19	.28	.17	.21	1.0												
12	.27	.26	.23	.23	.40	.37	.29	.32	.29	.36	.19	1.0											
13	.20	.21	.12	.25	.23	.10	.19	.31	.18	.27	.30	.21	1.0										
14	.38	.41	.17	.46	.42	.18	.42	.48	.33	.33	.27	.35	.34	1.0									
15	.15	.19	.16	.17	.35	.58	.19	.21	.23	.26	.21	.42	.19	.20	1.0								
16	.30	.33	.08	.26	.33	.20	.25	.32	.26	.26	.20	.30	.20	.32	.16	1.0							
17	.38	.45	.13	.40	.32	.08	.38	.41	.22	.24	.20	.24	.29	.50	.10	.32	1.0						
18	.31	.46	.26	.37	.40	.28	.33	.38	.32	.36	.25	.27	.22	.32	.26	.28	.27	1.0					
19	.24	.25	.18	.25	.43	.44	.25	.26	.19	.27	.23	.36	.17	.25	.45	.19	.16	.27	1.0				
20	.27	.34	.10	.26	.37	.26	.25	.34	.21	.28	.23	.37	.23	.37	.27	.33	.32	.20	.29	1.0			
21	.20	.29	.13	.26	.61	.41	.22	.34	.30	.30	.23	.40	.20	.31	.42	.33	.21	.34	.41	.36	1.0		
22	.18	.18	.19	.19	.26	.31	.29	.19	.19	.22	.13	.31	.11	.20	.45	.15	.11	.23	.33	.17	.24	1.0	
23	.31	.34	.21	.25	.24	.18	.27	.30	.23	.33	.15	.35	.14	.39	.19	.29	.28	.29	.21	.23	.25	.13	1.0
24	.28	.34	.10	.24	.47	.31	.28	.33	.26	.27	.28	.33	.22	.35	.29	.39	.28	.34	.35	.35	.45	.17	.38
25	.21	.18	.15	.17	.28	.51	.23	.20	.16	.23	.16	.30	.09	.18	.50	.12	.11	.25	.42	.22	.30	.36	.19
26	.37	.31	.17	.26	.36	.29	.30	.30	.22	.37	.16	.34	.20	.38	.23	.27	.35	.27	.30	.36	.37	.20	.31
27	.39	.43	.19	.40	.43	.31	.48	.48	.35	.43	.35	.37	.25	.48	.28	.32	.36	.37	.29	.31	.33	.30	.31
28	.21	.27	.11	.27	.36	.39	.26	.32	.26	.28	.30	.44	.22	.27	.47	.18	.21	.32	.38	.31	.36	.37	.23

Item	24	25	26	27	28
24	1.0				
25	.31	1.0			
26	.30	.25	1.0		
27	.33	.25	.34	1.0	
28	.30	.33	.25	.34	1.0

Note. N=977; all correlations significant at $p<.001$.

We examined several indices for model fit that included absolute, incremental, and parsimonious fit measures. The absolute fit measures included the chi-square goodness-of-fit index and the root mean error square of approximation (RMSEA). The incremental measure of fit used was the Tucker-Lewis Index (TLI). The parsimonious fit measure used was the comparative fit index (CFI).

The chi-square goodness-of-fit index was 636.70, which was statistically significant. This was likely due to the large sample size as chi-square is sensitive to sample size. The TLI revealed excellent fit with a value of .96, however the CFI fell short with a value of .86. Browne and Cudeck (1993) suggest that values for the RMSEA of less than .08 indicate reasonable fit and those less than .05 indicate good fit; the PTC had an RMSEA of .089 slightly above the cutoff of reasonable fit.

Discriminant Validation: Group Differences

We conducted a validity study that compared students' ratings of six teachers; three were considered as very caring and three were considered as not caring. The teachers were identified by the principal and recommended to the first author, who selected the six participants. The high school principal's appraisal of classroom teacher performance, observation of the teachers interacting with students in

and outside the classroom, and classroom discipline problems was the criteria used to identify the teachers. The Likert scale of the final instrument was changed to Strongly Agree = 4 to Strongly Disagree = 1. Students were asked to rate their teacher about the degree to which he or she exhibited each caring behavior. We divided the students' responses into two groups according to whether the teacher was considered very caring or not caring and created the three subscale scores. We used a multivariate analysis of variance (MANOVA) to analyze the data. The MANOVA was statistically significant, $F(3, 92) = 7.62, p < .0001$; we followed up with three univariate analyses of variances with each of the three subscales as dependent variables. In each case, the ANOVA was statistically significant (see Table 5).

Table 5
Analysis of Variance for Caring and Non-Caring Teachers

Source	DF	MS	F
Validating Student Worth			
Group	1	989.06	11.80***
error	94	(7876.27)	
Individualizing Academic Success			
Group	1	266.80	20.51***
error	94	(1222.53)	
Fostering Positive Engagement			
Group	1	155.92	7.76***
error	94	(1887.90)	

Note. Values enclosed in parentheses represent mean square errors.

*** $p < .001$

Results

Table 6 shows the rank-order of behaviors that high school students perceived as demonstrating care in addition to the percent of students who rated the item as important or very important.

Table 6
Frequency Analysis of Teacher Behaviors

Item Number on Scale	Teacher Behaviors	Rank Order	% of Students
7	Prepares me for tests.	1	89
20	Answers my questions with respect.	2	87
31	Makes sure I understand.	2	87
25	Listens to me whenever I talk.	3	86
34	Is willing to help me when I need it.	3	86
8	Responds with a positive tone when I ask for help.	4	85
5	Is available whenever I need help on something.	4	85
19	Makes learning fun.	4	85
29	Likes helping me when I do not understand something.	5	82
23	Shows an attitude that makes me feel comfortable in class.	6	81
4	Gives me examples on how to improve.	6	81
24	Calls me by my name.	7	79
33	Reminds me about important things more than once.	7	79
14	Talks to me whenever my grades are poor.	8	76
17	Will stay before or after school to tutor me.	9	74
36	Pays attention to my opinions.	9	74
9	Is very nice to me.	10	73
15	Believes in me.	11	72
22	Offers to help whenever convenient for me.	12	71
3	Encourages me in class.	14	68
21	Allows any effort I give.	15	67
30	Returns my papers on time.	15	67
11	Gives additional time to turn in any kind of work.	17	65
10	Suggests I come to tutorials whenever I fail something.	18	63
35	Asks for my opinions.	18	63
16	Tells me I can achieve my goals.	19	60
26	Talks to me in class.	20	58
27	Works with me on an individual basis.	20	58
28	Jokes with me in class.	21	57

Discussion

The purpose of our study was to identify teacher behaviors that secondary students perceived as demonstrating caring. Interviews were conducted with high school students about what behaviors they thought demonstrated teacher caring (Author). From these interviews, an initial set of 42 items was developed and used in a pilot study with 44 students in grades 9 through 12. Based on the results of pilot study one, the instrument was refined and administered to a second sample of 977 students in grades 9 through 12 (see Table 2). The first authors' original work and the results of our two pilot studies provided evidence that there were three subscales: Validating Student Worth, Individualizing Academic Success, and Fostering Positive Engagement. In addition, evidence for the psychometric soundness of the PTC was provided by its ability to discriminate between teachers perceived as caring and not caring, its internal consistency, and confirmation of its factor structure through a confirmatory factor analysis.

Perceptions of Teacher Caring

Validating Student Worth

Validating Student Worth, the first subscale of the instrument, refers to actions or behaviors, verbal and non-verbal, which demonstrate respectful interactions and communicate a sincere level of regard for students as individuals and interest for the student's welfare. Consistent with previous studies (Coburn & Nelson, 1989; Coley, 1995; Geary, 1988; Hansen & Toso, 2007; Kitano & Lewis, 2005; Knesting, 2008), five of the top ten behaviors regarded as most important by the participants in this study (see Table 6) are linked to this subscale, suggesting the critical nature of caring and regard for students. The language and actions convey a perception of students as human beings rather than physical bodies in the classroom (Valverde, 2006). The manner in which a teacher responds or interacts with students is self-regulated, therefore, instrumental in the manner with which the verbal or non-verbal interaction is interpreted by a student. These behaviors engender a sense of belonging and respect for students that may increase student interest and motivation which drive learning. As Kottler and Zehm (2000) state "A sense of humor and playfulness are among the most powerful tools available to teachers to help accomplish this mission (p. 15). When students feel valued (Kitano & Lewis, 2008) and encounter positive experiences (McMillan & Reed, 1994) coupled with a teacher's pleasant manner, a sense of belonging (Coley, 1995; Hansen & Toso, 2008) may occur, instrumental in students' perceiving attending school as worthwhile. When teacher behavior reflects an attitude that is inviting, rather than discouraging, students are more apt to attend class and participate in the learning process because they want to be there.

Individualizing Academic Success

The next subscale, Individualizing Academic Success, refers to student perceptions of a teacher's responsiveness or scaffolding that provides both cognitive and affective instructional support and assistance to students (Garza, 2006). These actions help to engender successful and positive classroom experiences for all students. While scaffolding may be viewed as the process of providing the cognitive input to support new learning (Monzó & Rueda, 2001), scaffolding in this study was reflected also by concrete actions that supported academic gains (Ferreira & Bosworth, 2001; Nelson & Bauch, 1999). These responsive actions are motivated by teacher ethic, context, and moral obligation (Bluestein, 1991; Noddings, 2005). When students encounter positive experiences in the classroom (Epstein, 1992; Hansen & Toso, 2008; Haynes, 1996) and caring teachers (McMillan & Reed, 1994; Reis, Colbert, & Hébert, 2005) they are more likely to remain in school.

Fostering Positive Engagement

Fostering Positive Engagement, the third subscale, describes behaviors that encourage self-esteem in students to promote active participation in the classroom. When this occurs, students feel cared for (Hansen & Toso, 2007). Mendes (2003) agrees that "Positive responses create an emotional bank account that can absorb relational difficulties that occur along the way" (p. 59). These behaviors reflect how the teacher invests the time necessary to create positive experiences for students rather than discounting them or labeling them as unmotivated whenever challenges occur for the learner. In other words, students believe the teacher cares about their learning and success or in Irvine's (2003) words, "Effective teachers love and care about the students whom they teach, and they also love and are excited about the subject that they teach" (p. 47). Additionally, Brown (2007) affirms "A positive or negative response could affect the self-esteem and academic success of students" (p. 57). If students perceive the teacher to be unresponsive to their needs, disengagement may occur, which in turn may

lead to underachievement or dropping out of school (Kitano & Lewis, 2005). Valverde (2006) emphasizes that students' "interest in learning will continue if they find success" (p. 37).

Methodological Limitations

This study is limited by gathering data at one large suburban high school in the southern part of the United States. Over 80% of the participants, representing low- to middle-income socioeconomic status, were Latino and White students from one geographical area. Other researchers might draw different inferences based on the findings of this research investigation and their interpretation of the documented behavior. Although the scores on the PTC had internal consistency and evidence of validity, caution should be taken when generalizing the conclusions from this study to similar demographic groups in diverse high school settings in other parts of the United States. In spite of this limitation, the PTC shows promise as a useful instrument to measure students' perceptions of teacher caring.

Implications for Educators

Our findings support results in other studies (Coburn & Nelson, 1989; Cassidy & Bates, 2005; Coley, 1995; Geary, 1988; Kitano & Lewis, 2005; Klem & Connell, 2004; Knesting, 2008; Reis, Cobert, & Hébert, 2005) that identified caring as an intervention to support, listen, value, relate, affirm, and engage students in the classroom. While these studies have suggested caring as a factor that contributes to academic involvement and may prevent students from leaving school early, our results suggest that using the PTC may be an effective approach to understand and support disenfranchised adolescents.

Although teachers may believe that their behaviors reflect caring, students' interpretations may not be aligned. Therefore, soliciting relevant student feedback about caring may enable teachers, counselors, and administrators to adequately serve the needs of our most neglected high school students. Using the PTC can help to facilitate the process, as the questions focus on caring behaviors that can be demonstrated by teachers. PTC has the potential to provide various stakeholders with authentic results that mirror what is most important to the students in their respective learning environment.

Moreover, our survey instrument can also be used as an assessment tool for professional development. The instructions can be changed to reflect students' views on their actual teacher's behavior rather than to identify the most important behaviors that convey caring, as we did in our validity study. After surveying the student body, a school or educator can then use the data to assess and self-regulate institutional or individual behavior and respond more effectively to students. To be change agents for the welfare of our students, Schussler and Collins (2006) recommend "That care must be a deliberate focus, fundamental to the school's ideology, if schools are to create structures that enable caring relationships" (p. 1490).

The results of this study add to the extant research in several ways. First, there is a lack of focus on describing high school students' perspectives about caring behaviors. Their perceptions "are worth considering as viable means in the quest to break down barriers that may prevent" (Author) students from succeeding in school. Second, their comments suggested the most important behaviors critical in caring for them which may vary from the norm. The priority attributed to the behaviors provides concrete examples of what teachers can do to demonstrate caring for their students. For example, knowledge of

high school students' descriptions may provide in-service and pre-service teachers with evidence of what their students expect.

Other stakeholders such as, mentor teachers, administrators, district supervisors, and university supervisors may find merit in these results because they offer alternatives to institutional common practices that may be ineffective. The notion of high school students' perceptions of caring behaviors deserve further examination to determine whether these behaviors are unique to our setting or representative of other secondary students in different parts of the United States. Specifically, do rural students' perceptions of caring behaviors differ from urban students? Do private school students' perceptions about caring behaviors differ from urban and rural students? Do students in different parts of the country differ in their perceptions about caring behaviors? Unless we care enough to consider students' voices as a means to affect positively the lives of our most neglected students, defining them by perceived deficits rather than strengths will continue to marginalize and diminish their hopes of getting an education.

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