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Running Head: TEACHER LABELING AND STUDENTS' ACADEMIC PERFORMANCE

Labeling in the Classroom:

Teacher Expectations and their Effects on Students' Academic Performance

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Abstract

The transition to high school can be challenging for some adolescents, resulting in drops of academic functioning (Barber & Olsen, 2004; Smith, 2006). While changes in academic demands and the disparity between adolescent needs and the environmental characteristics of high school have both been cited as possible contributors to this decrease in academic and personal functioning (Barber & Olsen, 2004), it is possible that teachers may play an even larger role in undermining these students' functioning, specifically through labeling. Although labeling, and how it can lead to self-fulfilling prophesies, is a concept that has been thoroughly researched and applied to the field of criminology and deviant behavior, it is the goal of this current study to investigate if labeling also occurs in the classroom setting and how such labels ultimately effect the academic potential of high school students.

Labeling in the Classroom:

Teacher Expectations and their Effects on Students' Academic Performance

The Transition to High School

Initially, many scholars hypothesized that the transition to high school was difficult for all students. Yet recent research has suggested that these difficulties are likely characteristic of only some students (Wargo-Aikins, Bierman, & Parker, 2005). For those students who have had a difficult time transitioning, common patterns have begun to emerge to explain why some students are more dissatisfied than others and demonstrate more negative outcomes.

Current research has indicated that the decrease in teacher support that is typically found once students enter high school can make the transition more difficult (Barber & Olsen, 2004). In their research, Barber and Olsen (2004) state that as children progress to higher levels of education, their autonomy should increase, and thus they should have a less personal relationship with their teachers. Yet Barber and Olsen (2004) indicate that this decrease in dependency on teachers is not beneficial for students, because it is developmentally regressive, contradicting the adolescent need for positive interpersonal connections, not only making the transition harder for students, but making students like school less. The importance of positive interpersonal connections between teachers and students, specifically in regards to a student's academic potential, is also reflected in the Cornell process model of motivation, which states that students perceived social context in the school setting (i.e. teachers) directly influences the self system (i.e. engagement in school) consequently impacting academic outcomes (Caraway, Tucker, Reinke & Hall, 2003).

This division in interpersonal connections at the high school level is ultimately attributed to the change in classroom size. Once students reach the high school level, the student-teacher ratio inevitably grows, making it difficult for students to collaborate with their teachers in regards to the material they will be taught (Davis, 2003). In turn, this inability to collaborate with their teachers in high school is very problematic for students, because in order to be motivated to learn, students need teachers who put their students' needs and interests first, which, given the increased size of the high school classroom, is a difficult task to accomplish.

This change in classroom environment that is seen at the high school level also tends to place a greater emphasis on student evaluation and on the recognition of a student's academic potential, ultimately creating competition in the classroom between students. Such an emphasis is clearly evident once students are segregated into specific classes as a result of their academic achievement level (i.e. special-ed, honors, AP, etc.) These classes, although created to enhance a student's academic potential, could actually be denying students the full benefit of school membership, especially for those students in the lower levels. These students begin to lose confidence in their ability to perform well academically, ultimately causing them to like school less (Ames, 1992).

While lack of interpersonal relations with teachers, loss of autonomy in the classroom, and the increased competitiveness that is placed on students' academic performance at the high school level certainly leads to dissatisfaction for some students once in high school, effecting their ability to transition, a topic that has not been as thoroughly researched, or applied to the transition difficulties some students face at the high school level, are teachers' expectations of students.

Teacher Expectations

According to Schultz (1983), the expectations teachers have of their students inevitably effects the way that teachers interact with them, which ultimately leads to changes in the student's behavior and attitude. In a classic study performed by Robert Rosenthal, elementary school teachers were given IQ scores for all of their students, scores that, unbeknownst to the teachers, did not reflect IQ and, in fact, measured nothing. Yet just as researchers predicted, teachers formed a positive expectation for those students who scored high on the exam vs. those who scored low (Harris, 1991). In response to these expectations, the teachers inevitably altered their environment in four ways (Harris, 1991): First, the teaching climate was drastically different depending on if a "smart" child asked questions, or offered answers, vs. if a "dumb" child performed the same behaviors. The former was met with warm and supportive feedback while the latter was not. Second, the amount of input a teacher gave to a "smart" student was much higher, and entailed more material being taught, vs. if the student was "dumb". Third, the opportunity to respond to a question was only lengthened for students identified as smart. Lastly, teachers made much more of an effort to provide positive and encouraging feedback to the "smart" children while little attention/feedback was given to the "dumb" students, even if they provided the correct answer.

This discrepancy between how the high IQ vs. low IQ children were treated by their teacher illustrates how problematic extrinsic rewards can be in the classroom setting, not only because not all students are rewarded for their behavior, but because these rewards, or lack there of, soon become internalized by these students as a method of maintaining behavior and ultimately determining their self worth (Ames, 1992). Thus because students' self perceptions, such as self efficacy, goal orientation, and/or autonomy, are robust indicators of motivation and

performance in school (Furrer & Skinner, 2003) the students who are continually rewarded by their teacher begin to see themselves as good students, and become motivated to learn and do well, while those who do not receive positive feedback inevitably abandon their motivation to do well, causing their academic potential to suffer, becoming the very individuals their teachers expected them to be.

Yet if students are continually progressing to higher grades and different schools, these initial teacher evaluations should have little impact on these students once they have new teachers. Unfortunately, because many teachers rely on previous evaluations from other teachers as a way to evaluate incoming students (Harris, 1991), these labels inevitably follow the student throughout their academic career, making it difficult, if not impossible, for those labeled as poor students to ever reach their true, academic potential.

The idea that these teacher expectations, these labels teachers inevitably assign their students, have long term effects on students' adjustment in school is an area that has not been thoroughly researched in the adolescent literature. Yet the long term implications of labels on deviant behavior has been thoroughly addressed in the criminological setting, and thus this study will examine how Labeling theory can inevitably be applied in the classroom to explain deviant academic vs. deviant criminal behavior.

Labeling Theory Applied to the Classroom

Although the concept of Labeling theory, specifically the idea that criminal labels carry a stigmatizing effect on those individuals who have been identified as "criminals", originated as early as 1911 by criminologist scholars, it wasn't until 1951 that this theory was formalized by Edwin Lemert (Lilly, Cully, & Ball, 2007). Lemert stated that there were two types of deviance: Primary deviance, which is when an individual gets caught committing a criminal act, and

secondary deviance: the reaction society has to the individual now identified as being a criminal (Lilly, Cully, & Ball, 2007). It is this latter form of deviance that enabled Labeling theory to gain such immense popularity in the 1960's, forcing criminologists to reconsider how large a part society plays in not only formulizing the laws of society, but in determining the future of its criminal population.

Thus while primary and secondary deviance has traditionally been used to explain criminal behavior, in this study, it can easily be applied to the school setting, particularly in regards to explaining how students identify themselves as "bad" vs. "good". This comparison is particularly evident in Rosenthal's experiment, where primary deviance would be the individuals who scored poorly on the exam, and secondary deviance would be the way the teacher now treated these children as a result of their low scores. Thus just like an individual who is labeled a criminal is forever seen as an outcast in the eyes of others, reducing them from a whole person to that of a tainted, discounted one (Link & Phelan, 2001), so too is the poor student.

As Labeling theory clearly illustrates, both the social and academic deviant, once labeled as such, are forced to carry these labels with them, performing the very behavior society expects of them, inevitably leading to confirmation bias. William Chambliss identified this bias when he examined society's reaction to two groups of high school boys: the Saints and the Roughnecks (Lilly, Cully, & Ball, 2007). Although both sets of boys had an equal amount of delinquency between them, because of their less desirable status (i.e. lower social class) the Roughnecks were assumed by police, and regular citizens alike, as being more likely to participate in deviant behavior (Lilly, Cully, & Ball, 2007). Thus as this example illustrates, secondary deviance leads to the formulation of stereotypes, which is troubling, considering how persistent stereotypes are.

Understanding how persistent stereotypes are in the criminological literature inevitably helps explain why prior teacher evaluations can be so problematic, particularly for students who have been evaluated negatively. Because these teachers only know these students as poor students, they consequently do not put in the effort to challenge these students academically, and thus because their poor reputation is constantly following them, these students never get the opportunity to prove that they can be good students and, instead, perform the only way they know how to: poorly. This phenomenon has been defined as a self-fulfilling prophesy, and just like criminal labels have the unanticipated consequence of pushing labeled individuals into future criminal careers (Lilly, Cully, & Ball, 2007), negative academic labels may be pushing students into greater academic failure. Thus it is the goal of this study to illustrate that negative academic labels, like negative social labels, are inevitably carried by students throughout their academic career, specifically from middle school into high school, ultimately affecting their ability to transition.

Alienation, as a result of being negatively labeled, is another consequence that has been thoroughly researched in the criminological literature. As a result of individuals being labeled as criminal, there is a fear of getting too close to these individuals, too close to these stigmatized persons, much like the discomfort we feel when having to sit next to a physically disabled individual (Hilton & Von Hippel, 1996). In fact, many will try to avoid this predicament at all cost, resulting in the isolation, as well as alienation, of the stigmatized person. This feeling of not belonging, as a result of a negative label, is not just limited to criminals, but has also been documented in adolescent research, particularly with students who do not perform well academically.

Because many teachers do not interact with their poor students, these students ultimately lack support from their teachers, support which, during a stressful transition (i.e. middle school to high school), is imperative for a student to have in order to increase their overall adjustment and functioning in school (Rosenfeld, Richman, & Bowen, 2000; Barber & Olsen, 2004). Thus as a result of this alienation, these students are at an increased risk of engaging in health compromising behavior, such as smoking and drinking, as a means to cope with the stress of not feeling accepted (Samdal, Wold, Klepp, & Kansas, 2000). Research has also shown that difficulty in school may be one of the best predictors of delinquency in American society (Lotz & Lee, 1999) Thus it is the goal of this current study to illustrate that individuals who have been labeled as "bad" students are more likely to feel disengaged from the schooling process, and thus as a result of this alienation, have high engagement in unhealthy behaviors.

While labels can be applied to anyone, regardless of race, gender, and education level, the research conducted in the criminological setting clearly illustrates that those on the bottom of the socio-cultural hierarchy (i.e. minorities, the poor, etc.) are those that are the most prone to carrying these stigmatizing labels. Racial profiling is a perfect example of this: In police records, there are more incidences of police citing, searching, arresting, and using force against minority drivers vs. white drivers (Lilly, Cully, & Ball, 2007). Although criminologists opposed to Labeling theory have argued that cops are more likely to arrest someone due to the seriousness of the offense vs. their racial makeup, proponents of Labeling theory have shown that even when seriousness of offense is controlled, the relationship between race/social class remains for police intake of individuals (Wellford, 1975). Thus official crime statistics may well be inaccurate in their portrayal of who commits the most crimes due to this systematic bias that is enforced by police officers with minority groups (Lilly, Cully, & Ball, 2007). This evidence is troubling

considering the implications it unduly has for minority groups: By utilizing discriminatory practices (i.e. racial profiling) those with higher social status and power are able to persuade minorities that they are inferior, ultimately making them less likely to challenge these discriminatory practices, keeping them in existence (Link & Phelan, 2001).

This discriminatory practice is unfortunately also evident in the academic setting, specifically for students enrolled in urban and rural schools. Because these schools tend to be in sections with little income, they often do not have the resources to offer an extensive number of AP classes like suburban schools do, putting minority students at an even greater disadvantage academically by placing them in the lower level courses (Solorzano & Ornelas, 2002). As a result of this, minority students are more likely to feel disengaged from the schooling process, because they have no means, or support, to challenge themselves academically (Barber & Olsen, 2004) inevitably causing these students to either "cool out", a process that involves just going through the motions of school, vs. trying to succeed academically (Frtizberg, 2001), or, in the most severe cases, drop out (Caraway et al., 2003; Little & Garber, 2004). In fact, the drop out rate between white and minority students is so disproportionate, with many more minority students dropping out vs. white students, that it has led some researchers to conclude that our society is guilty of institutional racism, where only the culture of the white race is taught and tested in school, not the culture of minority students (Fritzberg, 2001).

Thus one of the goals of this study is to investigate if students in lower SES schools are at a greater disadvantage than students in higher SES schools, specifically because both their minority standing, and unequal access to educational resources, puts them at a greater risk of being labeled as poor students, leading them to become disengaged, and thus not perform well academically.

An area that has received little attention, in both the adolescent and criminological setting, is that of positive labels, thus it cannot be assumed that these labels, while positive, are always advantageous. As mentioned before, in high school, the classes are divided in a hierarchical fashion, with AP and honor classes being on top. In order to get a better understanding of how students in these higher level classes view themselves, a recent study was conducted at Northwestern State University investigating 14 high achieving adolescents from various high schools around the country (Moulton, Moulton, Housewright & Bailey, 1998). According to this study, while many students reported positive perceptions towards their label as gifted students (i.e. special experiences, internal gratification, unique, etc.) they also listed negative aspects associated with this same label, specifically the increased pressure and high expectations from parents and teachers. In relation to this, the authors also found that many counselors, teachers, and administrators virtually ignored the developmental needs of the gifted and only focused on their cognitive abilities (Moulton et al., 1998).

It was also found that even high achieving students are not immune from feelings of academic inadequacy. According to Little and Garber (2004), people who exhibit high levels of investment in certain areas (i.e. school) are particularly susceptible to becoming depressed following stressful events related to their respective sensitivities (i.e. bad test grade). This finding is especially compelling when taking into account that the transition from middle school to high school results in a decreased GPA for most students (Barber & Olson, 2004; Smith, 2006). This decline in academic achievement is especially troublesome for adolescent girls, specifically in regards to their self-motivation and confidence in their academic abilities (Little & Garber, 2004). This achievement loss, as well as the loss of both self-esteem and self perception,

exhibited by the female students in this study, has been shown to be highly correlated with increased drop out rates in high school (Alspaugh, 1998).

Thus even high achieving students can feel disengaged from the learning process, feelings that could potentially have long lasting effects on future academic endeavors, discouraging these students from reaching their potential. With this in mind, another goal in this study is to investigate if these high performing students, because of their positive labels, still manage to do well in high school, even if they had a difficult time transitioning.

Purpose of this Study

The goals of this study were to measure how the initial stress of transitioning from middle school to high school interacts with teacher expectations, and whether labels carry over from one school to the other, further affecting the child's academic ability, even when immersed in a new environment. Risky behavior was also used as a means to gauge students' successful or unsuccessful integration into high school. Academic potential was also measured by comparing schools from different environments (i.e. rural vs. suburban) in order to determine if school location really does impact the rate of success, or failure, for students. By comparing these different schools, it was also possible to conclude whether or not SES is predictive of academic success and/or drop out rates.

The hypotheses of the current study were as follows: Hypothesis 1: Negative labels would continue to impact the academic achievements of students from middle school to high school. Hypothesis 2: Positive labels would impact high achieving students from middle school to high school even if these students had a difficult transition into high school. Hypothesis 3:"Bad" students will be more likely to involve themselves in risky behaviors (i.e. drug use, violence, sex, etc.). Hypothesis 4: Students from low SES schools will be more likely to be

labeled negatively as students as a result of both their minority status and decreased educational opportunities, resulting in lower academic achievement then students in higher SES schools.

Methods

Participants

Participants included 279 adolescents (164 females) who were in the eighth grade and ranged from age 13 to 15 years ($M = 13.95$; SD = .36) at the beginning of the study. The ethnic composition of the sample included 79% European American, 1% African American, 1% Asian American, 15% Latino American, and 4% from mixed ethnic background. Socioeconomic status data was not available for individual children and therefore per capita income for each town and percentage of students receiving free or reduced lunch were used as a proxy for SES. As such, SES was considered as a group variable rather than an individual variable. According to the 2000 Census data, the 5 towns where the students were enrolled in public school ranged in per capita from $35,087 to $77,794 ($M = \$58, 465$, $SD = \$16, 036$). According to school records, the number of children who were eligible for free/reduced lunch ranged from 2% to 57%.

At Time 1, in the spring of 8th grade, all students were recruited for participation. Consent forms were returned by 62% of families (n = 388) and of these, 72% of parents consented their child's participation (n = 281, 53% of total population). Students who were absent on one of the days of testing (n = 1) or refused to participate (n = 1) were excluded from the analyses, yielding a final sample of 279 participants at Time 1. A total of 248 (89%) of these participants were available for testing 6 months later in the Fall of 9th grade (Time 2). Attrition was due to participants moving away from the area (n = 5), attending high schools that were not part of the study (n =19), retention in 8th grade (n = 1), incomplete data (n = 2), and refusal to participate (n= 3). Six months later, during the Spring of 9th grade, data was collected again (Time 3). A

total of 241 (86%) participants were available for testing. Attrition between Time 2 and Time 3 was due to participants movie away from the area (n = 3), school absence (n = 1), and placement out of district (n = 3).

Measures

GPA. GPA's were calculated by averaging students' grades, which were obtained from their report cards, across their classes during Time 1, 2, and 3. Scores were based on a percentage from 0-100%.

Absences. Absences were calculated as the number of school reported days a student had missed class during the year.

Referrals. School referrals were calculated as the number of school reported times students were sent to the office for disciplinary reasons during the year.

YRBS (Youth Risk Behavior Survey). For the purpose of this study, a shortened version of the YRBS was used as a measure of risky behavior. Specifically, lifetime engagement in smoking cigarettes, alcohol consumption, and marijuana use, were examined. For each behavior, participants were asked to specify if they have ever participated in the risky behavior, how old they were when they first engaged in that behavior, and the frequency in which they participated in the risky behavior within the past month (i.e. 30 days). The YRBS has been found to be a reliable measure, with 71.7% of the items rated as having substantial or higher reliability (kappa = 61%-100%) (Stevens & Griffin, 2001). Data from a test-retest reliability study indicated that students report risk behaviors reliably over time on this measure (Brenner, Collins, Kann, Warren, & Williams, 1995; Stevens & Griffin, 2001).

Academic engagement. As a measure to identify teachers' labeling of students, teachers' ratings of participants' academic engagement was assessed using the Academic Helplessness

Scale (Nolen-Hoeksema, Girgus, & Seligman, 1992, Rudolph, Kurlakowsky, Conley, 2001) at Time 1 and Time 3. For each of the 12 items, teachers rated (1 = not true to 5 = very true) students' tendency toward helpless behavior in the context of schoolwork (i.e. "Takes little independent initiative; you must help him/her get started and keep going on an assignment." "When s/he begins a difficult problem, his/her attempts are half hearted."). Scores were calculated as the mean of the 12 items. Higher scores represent more helpless academic behavior. In this study, these ratings of helpless behavior are believed to be proxies of teacher perceptions of poor students. Teachers also rated students' academic effort (i.e. "Works hard academically.") versus their academic performance (i.e. "Performs well academically.") at Time 1 and Time 3, with teacher ratings of poor effort and performance, again, being indicators of negative teacher perceptions.

Teacher ratings of students' behavioral and emotional engagement in class were also believed to be proxies of teachers' perceptions of poor students. Behavioral and emotional engagement were assessed using the 24 item Academic Engagement questionnaire. Each item was rated on a four-point Likert scale ranging from "Not at all true" (1) to "Very true" (4). Sample items used to assess behavioral engagement included "In class, the student works as hard as he/she can" and "When I'm in class, the student just acts like they are working." Sample items used to assess emotional engagement included "When we work on something in class, this student gets bored" and "Class is not all that fun for the student" The mean of all responses was then calculated, with low scores indicating decreased behavioral and emotional engagement.

Results

Descriptive Statistics

Table 1 displays the means and standard deviations of the labeling and outcome measures at both Time 1 and Time 3. Correlations between the labeling and outcome variables at Time 1 and Time 3 are presented in Tables 2 and 3.

There was notable stability across outcomes from Time 1 and Time 3. Except for smoking, all other substance use at Time 1 was significantly correlated with substance use at Time 3 at the $p < .01$ level, indicating that if students' were engaged in unhealthy behavior in eighth grade, they were likely to continue such behavior in ninth grade. There was also a significant correlation between grades at Time 1 and Time 3, indicating that academic performance in eighth grade was predictive of academic performance in ninth grade. Looking at Table 2, it is evident that teacher ratings of helplessness, behavioral engagement, and emotional engagement during Time 3 were significantly predictive of students' engagement in drug, alcohol, and cigarette use, as well as lower academic performance.

Significant stability was also found from Time 1 to Time 3 for all three labeling variables. Ratings of helplessness (.47), behavioral engagement (.30), and emotional engagement (.67) were all found to be positively correlated from Time 1 to Time 3 indicating that students labeled as more helpless, less behaviorally engaged, and less emotionally engaged at Time 1 were also likely to be labeled as more helpless, less behaviorally engaged, and less emotionally engaged at Time 3. At Time 1, ratings of helplessness and behavioral engagement were found to be significantly correlated to each other (-.44) indicating that the more helpless a teacher saw a student, the more likely they were to also see that student as being less behaviorally engaged. This relationship was again observed at Time 3 (-.45). Although behavioral engagement and

emotional engagement were not significantly correlated with each other at Time 1, at Time 3, a significant relationship emerged between the two labeling variables (.44) indicating that teachers who rated their students low on behavioral engagement were also likely to rate them low on emotional engagement.

SES and Academic Performance

In order to determine if those students labeled negatively by their teachers in lower SES schools were at an even greater disadvantage academically than the negatively rated students at higher SES schools, a T-test was performed. Compared to negatively rated students at higher SES schools, negatively rated students at lower SES schools were seen as more helpless $t(341) = -3.39$, $p < .001$, $M = 2.28$, $SD = 1.00$ vs. $M = 1.8$, $SD = .89$, less behaviorally engaged $t(332) = 4.64$, $p < .001$, $M = 2.61$, $SD = .33$ vs. $M = 2.8$, $SD = .26$, and less emotionally engaged $t(332) = .96$, $p = .34$, $M = 2.4$, $SD = .05$ vs. $M = 2.45$, $SD = .27$, supporting the initial hypothesis.

Hierarchical Regressions

Hierarchical regression analyses were performed to examine the impact of teacher labeling on change in adolescent academic performance and engagement in health risk behavior. For each analysis, pre-transition levels of the outcome of interest were entered into Step 1 and teachers' post-transition labels (i.e. post-transition ratings of behavioral and emotional engagement, as well as teachers' ratings of helplessness) were entered into Step 2. Results of these analyses can be found in Tables 4 and 5.

The first analysis examined the influence of teachers' labeling on change in academic performance. In Step 1, the analysis demonstrated that pre-transition teacher ratings of performance were significantly predictive of post-transition ratings of academic performance ($R^2\Delta = .21$, $p < .001$, $\beta = .46$). In Step 2, teacher labeling added significantly to the prediction of

academic performance, with teachers' ratings of behavioral engagement at Time 3 ($R^2\Delta = .40$, $p<.001$, $\beta = .28$) and teachers' ratings of helplessness at Time 3 ($R^2\Delta = .40$, $p<.001$, $\beta = -.52$) significantly adding to the prediction.

The influence of teachers' labeling on students' academic behavior, specifically their grades, absences, and detentions, were also measured using hierarchical regression analyses. The results of these can be found in Table 5.

The effects of teachers' labels on students' grades was the first examined. In Step 1, the analysis demonstrated that students' grades at Time 1 were significantly predictive of students' grades at Time 3 ($R^2\Delta = .60$, $p <.001$, $\beta = .78$). In Step 2, teacher labeling did add significantly to the prediction of students grades at Time 3, specifically teachers' ratings of students' behavioral engagement at Time 3 ($R^2\Delta = .06$, $p =.03$, $\beta = .12$) and teachers' ratings of students' helplessness at Time 3 ($R^2\Delta = .06$, $p< .001$, $\beta = -.21$) contributed to this prediction.

Absences were then studied as another outcome of teachers' labels of students' academic effort. In Step 1, the analysis demonstrated that absences at Time 1 were significantly predictive of students' absences at Time 3 ($R^2\Delta = .30$, $p <.001$, $\beta = .54$). In Step 2, teacher labeling did add significantly to the prediction of students' absences at Time 3, specifically teachers' ratings of students' emotional engagement at Time 3 ($R^2\Delta = .07$, $p =.03$, $\beta = -.13$) contributed to this prediction.

Referrals were then studied as the last outcome of teachers' labels of students' academic effort. In Step 1, the analysis demonstrated that referrals at Time 1 were significantly predictive of students' referrals at Time 3 ($R^2\Delta = .51$, $p <.001$, $\beta = .71$). In Step 2, teacher labeling did not add significantly to the prediction of students referrals at Time 3.

The next set of analyses examined the influence of teacher labeling on adolescent health risk behavior. The first regression analysis examined the influence of teachers' labeling on harmful behavior; specifically students' experimentation with cigarettes (i.e. did the student ever try cigarettes?). In Step 1, the analysis demonstrated that experimentation with cigarettes during Time 1 was not predictive of experimentation with smoking at Time 3 ($R^2\Delta = .00$, $p = .917$, $\beta = -.01$). Yet in Step 2, teacher labeling did significantly add to the prediction of students experimentation with smoking, specifically teachers' ratings of behavioral engagement at Time 3 ($R^2\Delta = .07$, $p = .004$, $\beta = -.21$).

The influence of teacher's labeling on lifetime use of cigarettes was then assessed using regression analysis. In Step 1, the analysis demonstrated that students' lifetime engagement in smoking cigarettes at Time 1 was significantly predictive of students' lifetime engagement in smoking cigarettes at Time 3 ($R^2\Delta = .26$, $p < .001$, $\beta = .51$). Yet in Step 2, teacher labeling variables did not significantly add to the prediction of students' lifetime engagement in smoking.

Consumption of alcohol was then measured as a possible outcome of teachers' labels. In Step 1, the analysis demonstrated that lifetime consumption of alcohol at Time 1 was significantly predictive of students' alcohol use at Time 3 ($R^2\Delta = .43$, $p .001$, $\beta = .66$). In Step 2, teacher labeling significantly added to the prediction of students' engagement in alcohol consumption, specifically teachers' ratings of behavioral engagement at Time 3 ($R^2\Delta = .02$, $p = .004$, $\beta = -.14$) contributed to this prediction.

Students' alcohol consumption in the past 30 days was also measured as a possible outcome of teachers' labels. In Step 1, the analysis demonstrated that whether students consumed alcohol within the past 30 days at Time 1 was significantly predictive of students' consumption of alcohol in the past 30 days at Time 3 ($R^2\Delta = .12$, p, $.001$, $\beta = .35$). In Step 2, teacher labeling

did add significantly to the prediction of students engagement in alcohol consumption over the past 30 days, specifically teachers' ratings of students' emotional engagement at Time 3 ($R^2\Delta =$ .03, $p =.05$, $\beta = -.18$) contributed to this prediction.

Students' experimentation with marijuana (i.e. had the student ever tried marijuana?) was then examined. In Step 1, students' experimentation with marijuana at Time 1 was significantly predictive of students' experimentation with marijuana at Time 3 ($R^2\Delta = .27$, $p< .001$, $\beta =.52$). In Step 2, teacher labeling did add significantly to the prediction of students engagement in marijuana use, specifically teachers' ratings of students' helplessness at Time 3 ($R^2\Delta = .04$, $p<$ .001, $\beta = -.17$) contributed to this prediction.

Whether students had used marijuana within the past 30 days was the last possible harmful behavior outcome that was studied as a result of teacher labeling. In Step 1, the analysis demonstrated that whether a student had used marijuana within the past 30 days at Time 1 was a significant predictor of students using marijuana at Time 3 ($R^2\Delta = .19$, $p> .001$, $\beta = .44$). In Step 2, teacher labeling did add significantly to the prediction of students' engagement in marijuana use in the past 30 days, specifically teachers' ratings of students' helplessness at Time 3 ($R^2\Delta =$ .05, $p< .001$, $\beta = .19$) contributed to this prediction.

Positive Labels

In order to determine if students labeled positively at Time 1 were still motivated to do well academically at Time 3, in spite of having a difficult time transitioning, teacher evaluations of students' behavioral and emotional engagement, their helplessness, as well as their actual grades during Time 2 were measured. The mean of these four variables was then calculated and those who had the lowest scores (i.e. were the least behaviorally/emotionally engaged, most helpless, received lowest grades, etc.) during Time 2 were further analyzed. Out of these students

(82), those who had scored above the mean on all four measures during Time 1 (i.e. were rated as behaviorally/emotionally engaged, not helpless, doing well academically, etc.) were compared to those who scored above the mean during Time 3 to see if there was any overlap. It was reasoned that if the overlap of students from Time 1 to Time 3 was high, that is, if the same students did well academically during Time 1 and then again during Time 3, despite their difficulty during Time 2, then the hypothesis would be supported.

For emotional engagement, out of the 12 participants who scored above the mean at Time 1 ($M = 2.37$, $SD = .23$), 8 of these same participants, or 67%, also scored above the mean at Time 3 ($M = 2.44$, $SD = .28$), indicating that even though these students experienced a difficult transition, their positive labels motivated them to still be emotionally engaged in the classroom setting.

Evaluating behavioral engagement, out of the two participants who scored above the mean at Time 1 ($M = 2.72$, $SD = .30$), both failed to score above the mean at Time 3 ($M = 2.78$, $SD = .28$), indicating that for high achieving students who were negatively impacted by the transition, being behaviorally engaged in the classroom setting was much more difficult.

In regards to helplessness, out of the 35 participants who scored below the mean at Time 1 ($M = 1.60$, $SD = .80$; which indicated lower levels of helplessness), 13 of these participants, or 37%, scored below the mean at Time 3 ($M = 1.87$, $SD = .92$), indicating that for more than half of the high achieving students at Time 1, feelings of helplessness were still persistent even after the initial transition period had passed.

For teacher ratings of students' academic performance, out of the 32 participants who scored above the mean at Time 1 ($M = 3.69$, $SD = 1.26$), 13 of these participants, or 41%, scored above the mean at Time 3 ($M = 3.60$, $SD = 1.167$), indicating that for close to half of the high

achieving students at Time 1, having a difficult transition was not found to be correlated with impaired performance at the high school level.

In relation to performance, students' grades at Time 1 and Time 3 were also compared. Out of the 25 students who scored above the mean at Time 1 ($M = 85.74$, $SD = 7.98$), 20 of these students, 80%, also scored above the mean ($M = 80.38$, $SD = 10.93$) at Time 3, indicating that while the transition for these high achieving students may have been difficult, it did not prevent the majority of them from earning high grades like they did in middle school.

Discussion

The purpose of this study was to identify if teacher labeling of students not only occurs in the classroom setting, but if these labels carry over from one academic setting to another, specifically from middle school to high school. Teacher evaluations of students' behavioral and emotional engagement, along with ratings of helplessness, were identified as the labeling variables while academic performance (e.g. grades, absences, and referrals) and engagement in health risk behaviors were identified as the outcome measures.

The findings indicate that labeling in the classroom setting is a real occurrence which has the potential to have long lasting, and even negative, consequences for students as they transition to higher levels of education. Teachers' labels of students' behavioral engagement and school related helplessness were the best predictors of students' academic performance and engagement in health risk behaviors. The stability of these two outcomes across Time 1 and Time 3 was another significant indicator of how labels can continue to affect and impact students as they transition from one grade to another. Notably, teachers' labels of students' emotional engagement had little influence on student outcomes. Although ratings of emotional engagement were not seen as being significantly correlated with academic performance and engagement in

health risk behaviors, this labeling variable was predictive in regards to whether or not students, who demonstrated positive eighth grade adjustment, continued to do well in high school, despite a difficult transition. The effects of labeling were also found to be exacerbated by whether or not the student attended a low vs. high SES school. Specifically, poor performing students at low SES schools were rated as more helpless and less behaviorally and emotionally engaged than poor performing students at high SES schools.

The stability of students' negative adaptation from Time 1 to Time 3, specifically in regards to decreased academic performance and increased participation in health risk behaviors, can be interpreted as evidence of labeling theory. Researchers have illustrated that while high school can be a stressful transition for students, it also gives them the opportunity to start over, to meet new friends, get involved in more activities, even challenge themselves academically (Smith, 2006). Yet if poorly adjusted students from middle school have internalized this label, if they now see themselves as being incapable of being a good student, they will inevitably continue to do poorly in high school despite the opportunity to "shed" that image and start anew. This would explain why individuals who did poorly in eighth grade continued to do poorly in ninth grade, as well as continued to engage in risky health behaviors.

Although there were four significant correlations found between Time 1 teacher labeling variables (i.e. behavioral engagement and helplessness), and the outcome measures of academic performance and health risk behavior, at Time 3, all three labeling variables were found to be significantly correlated with every single outcome measure. What is particularly significant about this finding is that it illustrates that negative labels at the high school level tend to have even greater negative implications for students than they did at the middle school level. This certainly validates the previous point about how the stability of outcomes from middle school to

high school can be viewed as evidence of labeling theory, specifically in regards to how persistent labels can be. If an individual sees themselves as a poor student in middle school, not only is this label likely to impact them as they transition to high school, but as the results indicate, it may affect them to a much greater extent, further increasing their likelihood of engaging in health risk behaviors. As previous findings have indicated, the more these poorly adapted students become disengaged with the schooling process, the more isolated and helpless they become. In turn, they may involve themselves in risk seeking behavior, ultimately resulting in an increased drop out rate (Caraway et al., 2003; Little & Garber, 2004). Such negative consequences are further exacerbated as a result of transitioning to a new school (i.e. middle school to high school). Transitioning to another school environment tends to be a highly emotional and stressful time for some students (Barber & Olson, 2004; Smith, 2006), perhaps suggesting why students' decreased emotional engagement was so much more predictive of their engagement in health risk behaviors in ninth grade than it was when they were in eighth grade.

In addition to labeling variables being predictive of negative outcomes, they were also found to be stable across Time 1 and Time 3. As the results indicate, a positive correlation was found for all three labeling variables at Time 1 and Time 3, illustrating that the pervasiveness of labels, from one school environment to another, was observed within this study. Clearly this finding supports the original hypothesis and ultimate purpose of this current research, which was to illustrate that negative labels have the potential to follow a student as they progress to higher levels of education as a result of their academic information being passed from one teacher to the next. It was reasoned that these evaluations would influence the current teacher's perception of the poor performing student, resulting in confirmation bias, or seeking out information that supports the label of that student, enabling that label to persist as a result of a self fulfilling

prophesy, where students continue to act out the behaviors expected of them (Lilly, Cully, & Ball, 2007). This would explain why students who were engaged in negative health risk behaviors and had low academic performance in eighth grade continued to abuse substances and perform poorly in school in ninth grade, illustrating the long term consequences labeling can have if such labels become internalized and used as a measure of academic capability.

While the data supported the hypothesis that negative labeling of helplessness by teachers of their students does have a negative impact on these students' academic potential and involvement in risk seeking behavior, it is not clear as to whether it is the label per say that led to these significant results. What makes interpreting this data difficult under the lens of labeling theory is that in the questionnaires that were given to students, they were never asked to state whether or not they saw themselves as good vs. poor students, nor was there ever any direct observation of teacher-student interaction to determine if these different types of students were, in fact, treated differently, as was documented in the Rosenthal (1963) experiment. Without this crucial information regarding students' own self perception of themselves as a result of positive/negative interactions with their teachers, it cannot be concluded, with certainty, that negative outcomes of low grades and involvement in health risk behaviors is a direct result of negative labels. Moreover, it is not clear that teachers necessarily had access to previous teachers' "labels" regarding these students and, as such, that their impressions and future labels of these students were shaped by this information. Instead, these negative outcomes may just be evidence of typical coping strategies enacted by adolescents when they are having a difficult school transition vs. an act of secondary deviance, or evidence of a self fulfilling prophesy. Further, teachers may be making valid inferences regarding students' engagement and approaches to school and if indeed they are disengaged and have few active approaches for

coping with school challenges, poor academic performance and engagement in risky behavior may be the result.

       While research has clearly shown that there is a racial bias in terms of labeling individuals socially deviant, specifically that minority individuals tend to carry this label more often than White individuals (Lilly, Cully, & Ball, 2007), it was the hopes of this current research to identify if such bias also made its way into the classroom setting. According to the results, in terms of teacher ratings, individuals at the lower SES schools were perceived as being the least engaged and the most helpless compared to students at the higher SES schools. Unfortunately, because demographic information of the student body was not collected for each of the schools, identifying if more ethnic minorities attended the lower SES schools cannot be determined, and thus it cannot be confirmed that ethnic minorities are at a greater disadvantage when it comes to being negatively labeled by their teachers. Yet this finding is nevertheless significant because it still illustrates a system of bias occurring in the school system, specifically a class bias that can potentially put poorer students at a greater disadvantage academically than their more affluent peers. Similar to how the "roughnecks" in William Chambliss' experiment were seen as being more likely to engage in criminal behavior simply because of their decreased economic standing (Lilly, Cully, & Ball, 2007), students at low SES schools may be perceived as less behaviorally and emotionally engaged, and more helpless, by their teachers for this same reason. Yet because GPA's from the lower and higher SES schools were not calculated separately, and thus were not compared to one another, it cannot be determined if students at the lower SES schools, who were labeled negatively, performed worse academically than their counterparts at the higher SES schools as a result of these more severe, negative labels.

Although we had hypothesized that engaged students would perform well in school as a result of this positive label, results indicated that high achieving students were able to maintain their high performance despite the fact that very few of these students were rated high on behavioral engagement by their teachers. Notably, few of the students who were labeled as behaviorally engaged during Time 1 remained engaged during Time 3. Although these findings were not consistent with the initial hypothesis, perhaps these findings emerged because positive labels were not needed for these high achieving students to continue to do well post transition. These high achieving students were rated as being highly emotionally engaged by their teachers during Time 1 and Time 3, and thus perhaps showing enthusiasm or interest in class was enough to illicit a positive response from a teacher, prompting that teacher to encourage that student to continue to do well despite the challenges they may be facing as a result of transitioning. As the Rosenthal (1963) study demonstrated, when teachers know their students have the potential to be great students, they are willing to work harder and help that student reach their potential, even if that student does not exhibit clear behavioral instances of interest, such as volunteering to solve a problem in class or handing in their homework. As such, while these students may not be behaviorally engaged in the classroom setting, it does not mean they do not understand the material. They may just need extra encouragement, or they may be intimidated by their new class environment, specifically the hierarchical setup, explaining why they continue to feel helpless. As mentioned earlier, high school is the first time students are segregated into specific classes based on their academic performance. The added work and increased independence of these new classrooms can be overwhelming, and the fear of not being seen as a good student by their new teacher (Little & Garber, 2004) may inhibit their engagement in class, preventing the student from adequately participating. Thus because teachers are more likely to invest time and energy

with students who exhibit the potential to do well academically, these high achieving students continue to do well in school despite the negative labels of low behavioral engagement and high helplessness.

Limitations

The most significant limitation of this study was not being able to conclude with certainty that the labeling variables teachers used to evaluate their students (i.e. behavioral engagement, emotional engagement, and helplessness) as high vs. low performing were indeed internalized by these same students, leading to either positive or negative outcome variables (i.e. academic performance and engagement in health risk behaviors). Thus although there were significant and stable relationships found between these labeling variables and outcomes, without self report data from the students' themselves identifying whether or not they believed teachers labeled them, and thus whether they were treated differently because of that label, there is much more research that needs to be conducted in order to obtain more definitive and conclusive results regarding the extent and consequences of labeling in the classroom.

Another limitation of this study which makes it difficult to determine whether negative outcomes in high school were solely a result of negative teacher labels is the difficulty in separating the effects of teacher expectations on students from the effects of having a stressful transition once entering high school. Researchers have concluded that for many students entering high school, there tends to be a decline in their GPA as a result of more challenging classes and thus a more stressful, academic environment (Barber & Olson, 2004; Smith, 2006). Thus with this in mind, students' declines in performance may be the result of transition stress and change rather than negative labeling by teachers. While negative labeling and experiencing a stressful transition are certainly interdependent on one another, the ultimate goal of this study was to

determine if teacher expectations alone contribute to negative outcomes for students, which is why the post transition period of these students freshman year (i.e. second semester) was specifically analyzed. Yet it is not clear if giving these students a mere semester to adjust to high school was, in fact, enough time to separate these two variables from one another, and thus it is difficult to predict with certainty as to whether it was the negative labels vs. the transition itself which led to negative outcomes for students, specifically in regards to academic performance. Thus more research needs to be conducted regarding students' academic performance post freshman year in high school in order to conclude, with certainty, that students' poor performance in high school is in fact due to teacher expectations vs. a stressful transition to a new, academic environment.

Simply depending on GPA to identify which students are well vs. poor performing is problematic since it cannot be concluded with certainty that students who earn low marks are necessarily seen as poor students by their teachers. These students may very well be receiving low marks because they are in more challenging classes, yet because they are challenging themselves as students by taking these more advanced courses, and thus have the potential to do well, they may still be labeled positively by their teachers despite their lower academic performance. As such, without knowing what type of classes students are enrolled in, it is difficult to conclude if teachers' labels of these students truly correlate with their academic performance. It would have been more ideal if the students had been separated via their academic levels (i.e. basic, Honors, AP, etc.), specifically in terms of their racial make up as opposed to their SES standing. Without this information, it is difficult to conclude if, similar to social deviance, minority students are more likely to be labeled as academically deviant and thus more likely be placed in lower level classes simply because of their skin tone, severely limiting their

academic potential. The absence of these two demographic features severely decreases the ability of this study to identify the effects of labeling in the classroom setting, ultimately reducing the strength of the reported findings.

In terms of the stability of labels from eighth to ninth grade, previous research had concluded that prior evaluations from eighth grade could effect, and thus bias, the evaluations ninth grade teachers gave about their students (Harris, 1991). In this manner, one of the goals of this study was to illustrate the relationship between eighth and ninth grade labels. Yet because this study did not ask the ninth grade teachers whether or not prior evaluations from eighth grade teachers biased their interactions and their evaluations of their incoming students, and because evaluations were only administered during the second half of they year, it is difficult to conclude if the stability of these labels was the result of teachers depending on prior evaluations. Then again, labeling, like stereotyping, tends to be an unconscious action (Link & Phelan, 2001), and so even if teachers had access to, and were influenced by, past teacher evaluations, they may be quick to deny that such evaluations effected them, specifically if these evaluations were negative in nature.

Conclusion

While it may be difficult to conclude from this specific study that teacher expectations alone have profound effects on students in regards to their academic potential and involvement in negative health risk behavior, labeling in the classroom setting is not simply a phenomenon: it is an important reality that should continue to be addressed and researched by future studies.

As stated before, what makes labeling in the classroom so problematic is that like other types of stereotyping, it is an unconscious process and thus done automatically. After all, the goal of the educational system within this country is to provide every student with equal access

and equal opportunity to a quality education, and thus many individuals who become teachers do so because they want to enact these goals within their own classrooms, with their own students. Yet these good intentions are quickly undermined when these teachers begin to treat their students differently based on their academic achievement, and because they believe so strongly in creating an environment free of discrimination and favoritism, it becomes difficult for them to acknowledge the discrepancy between their cognitions and their actions. Thus similar to unintentional, covert racism, unintentional labeling is probably the most dangerous kind of labeling, because it is practiced by well intentioned individuals who do not see themselves as being biased, which makes eliminating it extremely difficult (Mio, Barker, Tumambing, 2009). The more awareness that is brought to teachers' attention about how detrimental this unintentional action can be for their students, the better prepared teachers will be in recognizing this differential treatment they enact with their students, preventing poor students from internalizing this label and allowing it to dictate their potential as both a student, and as an individual.

References

Aikins, J., Bierman, K., & Parker, J. Navigating the transition to junior high school: The influence of pre-transition friendship and self-system characteristics. *Social development, 14*. 42-26.

Alspaugh, J. (1998). Achievement loss associated with the transition to middle school and high school. *The Journal of Educational Research, 92*. 22-25.

Ames, Carol. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*. 261-268

Barber, B. & Olsen, J. (2004). Assessing the transitions to middle and high school. *Journal of Adolescent Research, 19*. 4-23.

Brenner, N., Collins, J., Kann, L., Warren, C., & Williams, B. (1995). Reliability of the youth risk behavior survey questionnaire. *American Journal of Epidemiology, 141*. 575-580.

Caraway, K., Tucker, C., Reinke, W., & Hall, C. (2003). Self-efficacy, goal orientation, and fear of failure as predictors of school engagement in high school students. *Psychology in the School, 40*. 417-419.

Davis, Heather. (2003). Conceptualizing the role and influences of student-teacher relationships on children's social and cognitive development. *Educational Psychologist, 38.* 221-223.

Fritzberg, G. (2001). Less than equal: A former urban schoolteacher examines the causes of educational disadvantagement. *The Urban Review, 33*. 109-119.

Furrer, C. & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*. 148-159.

Harris, M. (1991). Controversy and cumulation: Meta-analysis and research on interpersonal expectancy effects. *PSPB, 17*. 317-319.

Hilton, J. & Von Hippel, W. (1996). Stereotypes. *Annual Review Psychology, 47*. 245-252.

Lilly, J., Cully, F., & Ball, R. (2007). *Context & consequences.* Sage Publications.

Link, B. & Phelan, J. (2001). Conceptualizing stigma. *Annual Reviews Sociology, 27*. 368-375.

Little, S. & Garber, J. (2004). Interpersonal achievement orientations and specific stressors predict depressive and aggressive symptoms. *Journal of Adolescent Research, 19*. 64-73.

Lotz, R. & Lee, L. Sociability, school, experience, and delinquency. *Youth & Society, 31*. 199-207.

Mio, J., Barker, L. & Tumambing, J. (2009). *Multicultural Psychology: Understanding our diverse communities*. New York: McGraw-Hill.

Moulton, M., Moulton, P., Housewright, M., & Bailey, K. (1998). Gifted and talented: Exploring the positive and negative aspects of labeling. *Roeper Review, 21*. 153-154.

Nolen-Hoeksema, S, Girgus, J.S. & Selgiman, M. E. P. (1992). Predictors and consequences of childhood depressive symptoms: A 5-year longitudinal study. *Journal of Abnormal Psychology, 101*. 405-422.

Rosenfeld, L., Richman, J., & Bowen, G. (2000). Social support networks and school outcomes: The centrality of the teacher. *Child and Adolescent Social Work Journal, 17*. 205-220.

Rudolph, K., Lambert, S., Clark, A. & Kurlakowsky, K. Negotiating the transition to middle school: The role of the self-regulatory processes. *Child Development, 72*. 935.

Samdal, O., Wold, B., Klepp, K., & Kannas, L. (2000). Student's perception of school

    and their smoking and alcohol use: A cross-national study. *Addiction Research, 8*. 142-

    146.

Schultz, R. (1983). Sociopsychological climates and teacher-bias expectancy: A possible

    mediating mechanism. *Journal of Educational Psychology, 76*. 167-168.

Solorzano, D. & Ornelas, A. (2002). A critical race analysis of advanced placement

    classes: A case of educational inequality. *Journal of Latinos and Education, 4*. 220.

Smith, J. (2006). Examining the long-term impact of achievement loss during the

    transition to high school. *The Journal of Secondary Gifted Education, 17*. 211.

Stevens, P., & Griffin, J. (2001). Youth high risk behaviors: Survey and results. *Journal*

    of Addictions and Offender Counseling, 22. 33-34.

Wellford, C. (1975). Labelling theory and criminology: An assessment. *Social Problems,*

    22. 337-339.

Table 1

Means and Standard Deviations for all Time1 and Time 3 Variables

Variables	Time 1		Time 3	
	Mean	Standard Deviation	Mean	Standard Deviation
Behavioral Engagement	2.79	.30	3.04	.51
Emotional Engagement	2.37	.23	2.99	.53
Helplessness	1.61	.80	1.87	.92
Smoking	.27	.83	.26	.44
Lifetime Smoking	.45	.50	.24	.97
Alcohol Use	.75	1.29	1.21	1.59
Alcohol Consumption (30 days)	.17	.60	.43	.99
Marijuana Use	.09	.58	.35	1.06
Marijuana Use (30 days)	.05	.35	.14	.58
Grades	85.74	7.98	80.39	10.93
Absences	5.59	5.15	6.09	6.20
Referrals	2.01	7.37	.81	2.30

Table 2

Correlations among Time 1 and Time 3 Labeling Variables and Outcomes

	Time 1 Variables			Time 3 Variables		
Outcomes	Behavioral Engagement	Emotional Engagement	Helplessness	Behavioral Engagement	Emotional Engagement	Helplessness
Smoking	.02	-.10	-.02	-.23**	-.27**	.21**
Lifetime Smoking	-.16**	.05	.17			.16**
Alcohol Use	-.12*	-.02	.13*	-.25**	-.19**	.11**
Alcohol Use (30 days)	-.02	.06	.1	-.22**	-.15**	.16**
Marijuana Use	.05	-.01	.04	-.23**	-.18**	.17**
Marijuana Use (30 days)	.05	.04	.06	-.18**	-.16**	.19**
Grades	.45	.05	-.73**	.38**	.30**	-.60**
Absences	-.13*	.14*	.24**	-.26**	-.16*	.25**
Referrals	-.05	-.02	.42**	-.37**	-.09	.34**

*p <.05, **p <.01

Table 3

Correlations: Stability of Outcomes between Time 1 and Time 3

| Outcomes | Smoking | Time 3 | | | | | |
		Lifetime Smoking	Alcohol Use	Alcohol Use (30 days)	Marijuana Use	Marijuana Use (30 days)	Grades
Time 1							
Smoking	.002						
Lifetime Smoking		.51**					
Alcohol Use			.65**				
Alcohol Use (30 days)				.35**			
Marijuana Use					.49**		
Marijuana Use (30 days)						.41**	
Grades							.77**

*p <.05, **p <.01

Table 4

Summary of Hierarchical Regression Analyses Examining Labeling Variables on Outcome Drug Measures at Time 1 and Time 3

	Smoking		Lifetime Smoking		Alcohol Use		Alcohol Use (30 Days)		Marijuana Use		Marijuana Use (30 days)	
	β	ΔR²	β	ΔR²	β	ΔR²	β	ΔR²	β	ΔR²	β	ΔR²
Step 1 Time 1 Drug Use	-.01	.00	.51*	.26**	.67**	.43**	.35**	.12**	.52**	.27**	.44**	.19**
Step 2 Time 3 Behavioral Engagement	-21	.07	-.03	.01	.06	.02**	-.02	.03*	-.06	.04**	-.05	.05**
Emotional Engagement	.00	.07	.03	.01	-.14*	.02**	-.12*	.03*	.02	.04**	-.03	.05**
Helplessness	.10	.07	.07	.01	.09	.02**	.11	.03*	.17**	.04**	.19**	.05**

* *p* <.05, ***p* <.01

Table 5

Summary of Hierarchical Regression Analyses Examining Labeling Variables on Outcome Academic Measures at Time 1 and Time 3

	Performance		Grades		Absences		Referrals	
	β	ΔR²	β	ΔR²	β	ΔR²	β	ΔR²
Step 1 Time 1 Academic Measures	.46**	.22**	.78**	.60**	.55**	.30**	.71**	.51**
Step 2 Time 3 Behavioral Engagement	.28**	.40**	.12*	.06**	-.11	.07**	-.09	.05**
Emotional Engagement	.02	.40**	.03	.06**	-.13*	.07**	-.11	.05**
Helplessness	-.52**	.40**	-.21**	.06**	.12*	.07**	.11	.05**

**p* <.05, ***p* <.01