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# The Prevalence of Anxiety and Perfectionism in High School Students

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The Prevalence of Anxiety and Perfectionism in High School Students

Sarah Moore

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### Abstract

Academic performance is a major stressor for adolescents in high school. American high schools are offering more Advanced Placement (AP) courses than in the past and there has been an increase in enrollment in AP courses (Judson & Hobson, 2015). This study examines the presence of anxiety and maladaptive perfectionism in high school students. The purpose of this research is to determine if there is a connection between course difficulty (AP vs. Regents) and, anxiety and maladaptive perfectionism. The present study surveyed 65 eleventh and twelfth grade students using a self-report questionnaire. The questionnaire consisted of the Screen for Childhood Anxiety Related and Emotional Disorders and the Almost Perfect Scale-Revised. The results indicated that students enrolled in AP courses had more anxiety than students enrolled in regents courses. The group of students with the highest level of anxiety was the students enrolled in two AP courses followed by students enrolled in one AP course, and students in three or more AP courses. There was not a substantial difference in maladaptive perfectionism for students in AP courses compared to students in regents courses. This study suggests that students enrolled in two AP courses are the most at risk for negative outcomes including anxiety and maladaptive perfectionism. This study was limited to a convenience sample and there were a small number of students willing to participate at the researcher's internship state.

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### The Prevalence of Anxiety and Perfectionism in High School Students

Academic performance is a major stressor for adolescents in high school. High school students are under pressure from parents, teachers, peers, society and themselves to perform to high academic standards. American high schools are offering more Advanced Placement (AP) courses than in the past. Furthermore, there has been an increase in student participation in AP courses (Judson & Hobson, 2015). The AP program is a curriculum that offers high school students the opportunity to take college-level courses and earn college credit by obtaining a high score on the AP exam at the end of the semester. There are many benefits to the AP program including earning college credit in high school and opportunities for high-achieving students to be provided with rigorous curriculum. In addition, college admission boards view AP success as a predictor of success in college. However, there is concern that schools are pushing AP courses and that students are under pressure to perform to high standards (Judson & Hobson, 2015). Due to the elevated levels of stress experienced by students enrolled in high-level courses, these students appear to be at risk for mental health issues (Feld & Shusterman, 2015; Suldo, Shaunessy, & Hardesty, 2008).

In addition to stress, perfectionism and anxiety can be found in high-achieving students (Rice, Leever, Christopher, & Porter, 2006; Rice, Ashby, & Gilman, 2011; Shaunessy, Suldo, & Friedrich, 2011). Perfectionism can be adaptive or healthy perfectionism, or maladaptive or unhealthy perfectionism (Jaradat, 2013; Rice, Ashby, & Gilman, 2011). Adaptive perfectionism is related to high life satisfaction and academic achievement, however, maladaptive perfectionism is associated with negative outcomes (Jaradat, 2013). The literature suggests that maladaptive perfectionism is related to social stress and anxiety (Rice et al., 2011). Anxiety is a cause for concern with adolescents. The national average of children ages 13-18 diagnosed with

an anxiety disorder is 25.1 percent. This percentage is concerning because it signifies that one in four adolescents have difficulty controlling their anxiety, which negatively affects their daily functioning (National Institute of Mental Health, 2010).

The purpose of this study is to determine whether students in Advanced Placement courses have more anxiety and maladaptive perfectionism than students in Regents courses. The goal of this study is to investigate the prevalence of anxiety and maladaptive perfectionism in high school students enrolled in high level courses compared to students enrolled in general education courses. The literature indicates that there is a need for further research to understand what causes anxiety in adolescents and what interventions are effective (Mann, Paglia-Boak, Adlaf, Beitchman, Wolfe, Wekerle, Hamilton, & Rehm, 2011). According to the National Institute of Mental Health (2015), psychotherapy, specifically Cognitive Behavioral Therapy is useful in treating anxiety disorders. Other strategies for dealing with anxiety include stress reduction techniques, meditation, and self help or support groups (National Institute of Mental Health, 2015). A previous intervention used for maladaptive perfectionism in schools was education for counselors about the different types of perfectionism and interventions for working with students. The interventions for maladaptive perfectionism included education on the concept of discrepancy and how it can affect academic progress and wellbeing, and setting realistic goals and standards (Jaradat, 2013). Rice, Leever, Christopher, and Porter (2006) identified that awareness of students struggling with maladaptive perfectionism is an important part of intervention with this population. Previous interventions used were counseling and tutoring services starting at the beginning of the semester, and the awareness that students with maladaptive perfectionism may be at risk for mental health issues during high stress periods of the semester (Rice, Leever, Christopher, & Porter, 2006).

The data for this study was collected through anonymous surveys. Eleventh and twelfth grade high school students completed a survey consisting of The Screen for Childhood Anxiety Related Emotional Disorders (SCARED) and The Almost Perfect Scale-Revised. This study is important because there is little research on anxiety and maladaptive perfectionism related to course load and difficulty. It is important for schools to be aware of mental health issues that students may be experiencing. This research can help bring awareness to a possibly at-risk population of students. Furthermore, this research can lead to prevention and intervention programs for students struggling with anxiety and maladaptive perfectionism. The next section is a review of the current literature related to this research. The topics reviewed in the literature include high-level high school courses, anxiety in high school students and perfectionism in high school students.

### **High Level Courses in High School**

#### **Advanced Placement courses**

American high schools offer a wide variety of high-level courses in addition to standard regents courses. High-level courses include: Enriched/Honors courses, the International Baccalaureate (IB) program, and Advanced Placement (AP) courses (Judson & Hobson, 2015; Shaunessy, Suldo, & Friedrich, 2011). According to Judson and Hobson (2015), enrollment in AP courses in American high schools has been increasing rapidly. They suggest that from 1992 to 2012, the number of high schools offering AP courses nearly doubled. Specifically, there was been an increased participation in ninth and tenth grade students, as well as Hispanic students, participation in AP courses Although there was an increase in the number of students enrolled in AP courses, there has been a decrease in the number of students that pass the AP exam (Judson & Hobson, 2015). For example, Judson and Hobson (2015) found that the passing rate on AP

exams has decreased from 65.5% in 1992 to 59.2% in 2012. In addition, the number of students who earned a 1 on their AP exam also increased. Judson and Hobson (2015) suggest that more students enrolled in AP courses are underprepared for the AP exam. This is concerning because students are being placed in AP courses that cannot perform to the high level of the program. When students are having difficulty with school, they are more likely to experience stress and negative outcomes (Suldo et al., 2008).

### **High level courses and Stress**

A common theme experienced by students enrolled in high-level courses is increased stress (Feld & Shusterman, 2015; Suldo, & Shaunessy, 2013; Suldo, Shaunessy, & Hardesty, 2008). Suldo and Shaunessy (2013) compared the psychosocial functioning of students in general education to students in high achieving programs and found that students in the AP program and IB program experienced more stress than students in the general education program (Suldo & Shaunessy, 2013). Similarly, Feld and Shusterman (2015) found that high achieving students experience high levels of stress. For example, they surveyed 333 students enrolled in high-level courses at college preparatory high schools and found that more than one in five students experienced indicators of stress almost daily (Feld & Shusterman, 2015). Stress indicators included constant fatigue, inability to begin work, and lack of concentration. In addition, at least once a week, half of students experienced more severe symptoms including irritability, mood swings, restlessness, racing thoughts, and inability to sleep. One in three students experienced anger, back pain, neck stiffness, and headaches. One in four students reported experiencing depression, feelings of helplessness, and withdrawal from others. In addition, 12% of students experienced anxiety attacks or panic attacks at least once a week due to stress related to school (Feld & Shusterman, 2015). Feld and Shusterman (2015) suggest that

the stress experienced by students in high-level courses is a problem. The number of physical and mental symptoms that students reported was very high for a population that is young, healthy and high functioning (Feld & Shusterman, 2015).

Similarly, Suldo et al., (2008) found a link between stress and high-level courses. Students perceived stress, coping ability, and mental health in the IB program was compared to students in the general education program. Suldo et al., (2008) suggest that students enrolled in the IB program experience more stress than students enrolled in the general education program. IB students' stress did not affect their academic functioning, however, it did effect their coping mechanisms and mental health outcomes. Specifically, high levels of stress were related to anger coping and negative avoidance coping mechanisms of students. Suldo et al., (2008) found that students using negative avoidance tended to utilize legal and illegal substances as coping mechanism including smoking, drinking, and illicit drug. Anger coping strategies consist of an individual blaming others and yelling (Suldo et al., 2008). Suldo et al., (2008) indicated that anger coping strategies were related to externalizing problems, while negative avoidance coping strategies were related to internalizing problems. Specifically, Suldo et al., (2008) suggests that negative avoidance coping is a strong predictor of depression and anxiety.

### **Anxiety and High School Students**

Mental health disorders, specifically anxiety, experienced by high school students has been reported at a higher prevalence than in the past (Hess, 2014; Mann, Paglia-Boak, Adlaf, Beitchman, Wolfe, Wekerle, Hamilton, & Rehm, 2011; Merikangas, Burstein, Swanson, Avenevoli, Cui, Benjet, Georgiades, & Swendsen, 2010). Mann et al., (2011) focused on measuring the prevalence on anxiety and mood disorders (AMD) with the General Health Questionnaire (GHQ12). From a sample of 3,311 students in grades seven through twelve,

19.3% of the students qualified for AMD. Mann et al., (2011) found that the percentage of students that qualified for AMD on the questionnaire was higher than the original percentage of students that were identified with AMD (Mann et al., 2011). The results suggest that AMD are challenging to identify and are under diagnosed in the adolescent population. In addition, students with other identified health issues had a higher prevalence for AMD. Other identified health issues included family involvement with child protective services, hazardous/harmful drinking, drug use problem, gambling problem, bullying victimization, and seeking help for mental problems. Mann et al., (2011) results suggest that there is a positive relationship between anxiety and other health issues.

Comparatively, Merikangas et al., (2010) found that the prevalence of mental health disorders in adolescents was higher than those of previous studies. The sample consisted of 10,123 adolescents, ages thirteen to eighteen, to create a nationally representative sample of U.S. adolescents. Adolescents in the study were surveyed using the National Comorbidity Survey to measure lifetime prevalence estimates of mental disorders (Merikangas et al., 2010). Merikangas et al., (2010) found that nearly one out of three adolescents met the criteria for an anxiety disorder. In addition, 8.3% of the adolescents sampled met the criteria for a severe anxiety disorder. This suggests that anxiety is a mental health disorder affecting many adolescents today. In addition to prevalence estimates, Merikangas et al., (2010) found that female adolescents were more likely than males to have anxiety disorders, but less likely to have behavioral or substance abuse disorders, suggesting that gender acts as a mediator between adolescents anxiety disorders and substance concerns. This suggests that males are more likely to use externalizing coping mechanisms while females tend to internalize their emotions (Merikangas et al., 2010).

Similarly, Hess (2014) found a relationship between high school students and anxiety, as well as gender and anxiety. The Screen for Childhood Anxiety Related Emotional Disorders (SCARED) was used to measure anxiety in 146 high school students. Hess (2014) found that most of the students' scores were just below the number needed to indicate an anxiety disorder. However, 36% of the students scored higher than the number needed to indicate an anxiety disorder. This percentage is concerning because it is higher than the national average of adolescents with anxiety disorders, which is eight to twelve percent. Hess (2014) suggests that a significant number of adolescents that have an anxiety disorder are not being diagnosed. Similar to previous research, Hess (2014) found that female adolescents are more likely to have an anxiety disorder than males. The results suggest that gender plays a role in the prevalence of anxiety within adolescents.

### **Perfectionism and High School Students**

#### **Adaptive and Maladaptive Perfectionism**

Perfectionism is a trait that can be found in high-achieving students (Rice, Leever, Christopher, & Porter, 2006; Rice, Ashby, & Gilman, 2011; Shaunessy, Suldo, & Friedrich, 2011). Perfectionism is classified as adaptive or healthy perfectionism, or maladaptive or unhealthy perfectionism (Jaradat, 2013; Rice, Ashby, & Gilman, 2011). According to Rice, Ashby, and Gilman (2011), there is support for a three-dimension model for measuring perfectionism based on the Almost Perfect Scale-Revised. The Almost Perfect Scale-Revised uses three dimensions including high standards, discrepancy, and order to determine adaptive perfectionism, maladaptive perfectionism or non-perfectionist. A high standard score indicates perfectionistic strivings and high performance expectations. The discrepancy score indicates a perceived gap between personal standards and one's evaluation of having not met those

standards. The order score indicates an individual's preference for organization. Adaptive perfectionists have high standards and low discrepancy scores. Adaptive perfectionists are considered healthy perfectionists because they have high standards, but they can accurately evaluate themselves based on meeting those standards (Rice et al., 2011). Adaptive perfectionists only experience minimal amounts of distress when they do not meet their high standards (Jaradat, 2013). Maladaptive perfectionists have high standards and high discrepancy scores. Maladaptive perfectionism is considered unhealthy perfectionism because there is a disconnection between their high standards and their evaluation of themselves. This is concerning because when maladaptive perfectionists show high performance, they still do not believe that they have met their high standards (Rice et al., 2011). When maladaptive perfectionists do not meet their high standards, they experience distress. Non-perfectionists are individual that do not report high standards (Jaradat, 2013).

According to Jaradat (2013), counselors must be aware of the different types of perfectionism and how to best support students with maladaptive perfectionism. Interventions for maladaptive perfectionists can include education on the concept of discrepancy and how it can affect students' academic progress and wellbeing. Moreover, interventions may also include assisting students in setting realistic goals and standards. Jaradat (2013) measured, perfectionism, life satisfaction, academic achievement and self-efficacy within eleventh and twelfth grade high school students. Jaradat (2013) found that there were significantly more females in both the adaptive and maladaptive perfectionist groups. The results suggest that female students are more likely to be perfectionists than male students. In addition, adaptive perfectionists reported higher general self-efficacy, higher life satisfaction and higher academic achievement compared to

maladaptive perfectionists. This suggests that adaptive perfectionists are happier and perform better in school than maladaptive perfectionists. (Jaradat, 2013).

### **Perfectionism and Mental Health**

Rice, Leever, Christopher, and Porter (2006) studied the effects of adaptive and maladaptive perfectionism in high achieving college students. The Almost Perfect Scale Revised was used to measure the three dimensions of perfectionism. Rice et al., (2006) found that maladaptive perfectionism was a strong predictor of stress and psychological problems, suggesting that maladaptive perfectionism remains stable over time. In addition, Rice et al., (2006) found that during times of high stress the emotional effects of maladaptive perfectionism seem to worsen. Implications from this research include providing counseling and tutoring services to students starting at the beginning of the semester, and to increase school officials' awareness that students with maladaptive perfectionism may be at risk for mental health issues during high stress periods of the semester (Rice, Leever, Christopher, & Porter, 2006).

Rice, Ashby, and Gilman (2011) study measured 919 ninth grade students' levels of perfectionism using the Almost Perfect Scale-Revised. Rice et al., found that adaptive perfectionists had higher life satisfaction compared to maladaptive perfectionists and non-perfectionists. In addition to lower life satisfaction, maladaptive perfectionists scored the highest out of the three groups on social stress and anxiety. The results suggest that there is a relationship between maladaptive perfectionism, stress, and anxiety (Rice et al., 2011).

Shaunessy et al., (2011) study suggested a relationship between perfectionism and mental health. However, Shaunessy et al., (2011) research focused on the relationship between perfectionism and psychological functioning of students in the IB program compared to students in the general education program. The IB program is an internationally recognized, rigorous

program for high school juniors and seniors. The IB program combines advanced coursework with global awareness, critical thinking skills, communication skills, community service, extracurricular activities, and a self-directed research project. From the Almost Perfect Scale-Revised, Shaunessey et al., (2011) found that IB students had higher scores in adaptive perfectionism than general education students. In addition, a positive relationship was found between maladaptive perfectionism and anxiety for students in the IB program. Along a similar trend, a negative relationship was found between maladaptive perfectionism and life satisfaction for students in the IB program. Shaunessey et al., (2011) suggests that maladaptive perfectionism is a strong predictor of mental health outcomes for high-achieving students compared to general education students (Shaunessey et al., 2011).

It is important that personality factors and the mental state of high school students are studied. Understanding the needs of students in rigorous curricula is important due to the increasing popularity of students enrolled in AP courses. According to the literature, students that are enrolled in high-level courses are experiencing more stress than students enrolled in general education courses (Feld & Shusterman, 2015; Suldo, & Shaunessy, 2013; Suldo, Shaunessy, & Hardesty, 2008). Students that had high levels of stress were found to be at risk for negative outcomes including substance abuse, depression and anxiety (Suldo et al., 2008). In addition to stress, perfectionism was found to be more common in high-achieving students compared to general education students (Rice et al., 2006; Rice et al., 2011; Shuanessy et al., 2011). Maladaptive perfectionism was found to be a predictor of stress and psychological problems (Rice et al., 2006). The literature also indicates an increased presence of anxiety in the high school student population (Hess, 2014; Mann et al., 2011; Merikangas et al., 2010). Specifically, the research suggests that anxiety disorders and perfectionism are more common in

females than males (Hess, 2014; Jaradat, 2013; Merikangas et al., 2010). In conclusion from the literature, students enrolled in AP courses that experience maladaptive perfectionism and anxiety may be at an increased risk for negative outcomes.

This study investigates the prevalence of anxiety and maladaptive perfectionism in high school students enrolled in high level courses compared to students enrolled in general education courses. The significance of this research is to determine whether students enrolled in high-level courses are at risk for high levels of anxiety and maladaptive perfectionism. It is hypothesized that students enrolled in high-level courses will have higher levels of anxiety and maladaptive perfectionism compared to students enrolled in general education courses. The next section discusses the methods used in this study.

## **Method**

### **Participants**

Participants consisted of students at a suburban high school in New York State. The demographic at the high school is predominately white (91%). Other populations include 3% identifying as Black or African American, 3% identifying as Hispanic or Latino, 2% identifying as Asian or Native/Hawaiian/Other Pacific Islander, 1% identifying as Multiracial, and less than 1% identifying as American Indian or Alaskan Native. 50.6% of the students are female and 49.4% are male. 11% of the students are identified as economically disadvantaged (Nysed.gov, 2015). Participants consisted of eleventh and twelfth grade students whose course work ranged from regents courses to AP courses. In order to participate in the study, students had to be in eleventh or twelfth grade taking either regents courses or AP courses.

### **Sampling Procedures**

Written approval to conduct the study was received from the participating school district and the researcher's university Institutional Review Board (IRB). The study took place over a two-week period where the researcher made two visits to the classroom. The first visit was to provide students with parental consent and information forms. If the student wished, they could return the parental consent and student assent form to the Primary Investigator to be a participant in the study. The second visit was to administer the survey to students who had received parental consent to participate. Approximately 120 consent forms were given to students. 65 students returned the consent forms and completed the survey. The surveys were administered during the students' social studies class during the regular school day. The students were given as much time as needed to complete the survey. Students completed the survey in approximately ten minutes.

In order to maintain confidentiality, the surveys were anonymous. Consent forms and completed surveys were kept locked in the researchers office. All results were anonymous and identifying school information was kept confidential. At the completion of the research project, all consent forms and surveys were destroyed. There were no benefit for students to participate and minimal risks. Risks include potential emotional distress due to the topics addressed in the study. Another minimal risk is the time needed to complete the survey. Participants lost 20 minutes of instruction time in their social studies class to complete the survey. To minimize risk, participants were instructed to skip any questions they did not feel comfortable answering. In addition, the participants were made aware that the Primary Investigator was available for counseling services if they felt effected by any of the topics on the survey.

Convenience sampling was used for this study because participants were limited to those at the researcher's internship site who were willing to be involved in the study. 54% of the

students that were approached decided to participate in the study. Among the 65 participants, 62 were in twelfth grade and three were in eleventh grade. Participants included both male and female students. Ten students were enrolled in Regents courses, 17 were enrolled in one AP course, 18 were enrolled in two AP courses, and 20 were enrolled in three or more AP courses. The next section discusses the measures used in this study.

### **Measures**

**The Screen for Childhood Anxiety Related Emotional Disorders (SCARED).** The SCARED is a self-report questionnaire used to assess anxiety symptomology in children and adolescents. The SCARED consists of 41 items on a 3-point rating scale consisting of 0 = *Not True or Hardly Ever True*, 1 = *Somewhat True or Sometimes True* and 2 = *Very True or Often True*. A score of 25 or more indicates the presence of an Anxiety Disorder. In addition, the SCARED measures four specific types of anxiety that aligns with the DSM-5, including generalized anxiety, social phobia, separation anxiety and panic disorder. The SCARED also measures a final factor that is not included in the DSM-5, school avoidance or school phobia (Birmaher, Kheterpal, Cully, Brent and McKenzie, 1995). Previous research has shown that the SCARED is a reliable and valid instrument for measuring anxiety within children. The SCARED has been found to have good internal consistency with a Cronbach's alpha of .74. The SCARED also shows test-retest reliability with correlation coefficients ranging from .70-.90 (Birmaher, Khetarpal, Brent, Cully, Balach, Kaufman and Neer, 1997).

**The Almost Perfect Scale-Revised (APS-R).** The APS-R measures three aspects of perfectionism: an individual's expectations for personal performance (standards sub-scale), perceived failure to live up to his/her expectations (discrepancy sub-scale), and concern with organization and neatness (order sub-scale). The APS-R contains 23 items on a 7-point rating

scale consisting of 1 = *strongly disagree* to 7 = *strongly agree*. The standard sub-scale (7 items) and the discrepancy sub-scale (12 items) were used to determine non-perfectionism, adaptive perfectionism or maladaptive perfectionism. A standard score of 35 or higher indicates perfectionism. A discrepancy score of 43 or below indicates adaptive perfectionism and a discrepancy score of 44 or higher indicates maladaptive perfectionism (Slaney, Mobley, Trippi, Ashby, & Johnson, 1996). According to Slaney, Rice, Mobley, Trippi and Ashby (2001), The APS-R has been found to be internally consistent and valid in several studies. For the Discrepancy sub-scale, the Cronbach's alpha is a .91 and for the High Standards sub-scale, the Cronbach's alpha it is a .85 (Slaney et al., 2001). The next section discusses the research design used in this study.

### **Research Design**

This study followed a quantitative, nonexperimental descriptive design, examining the prevalence of anxiety and maladaptive perfectionism among eleventh and twelfth grade high school students. For each group of students (regents, 1 AP, 2 AP's, and 3 or more AP's), the number of students fitting the criteria for an anxiety disorder based off of their score on the SCARED was totaled. The total for each group was divided by the total number of participants to determine the percentage of anxiety for each group. The same process was used to determine the percentage of maladaptive perfectionism. The number of students from each group (regents, 1 AP, 2 AP's, and 3 or more AP's) that had a score on the Almost Perfect Scale-Revised that indicated maladaptive perfectionism was totaled. The total for each group was divided by the total number of participants to determine the percentage of maladaptive perfectionism for each group. The next section discusses the results of this study.

### **Results**

The study took place over a two-week period where the researcher made two visits to the classroom. The first visit was to provide students with parental consent and information forms. The second visit was to administer the survey and collect data. Originally, there were 66 participants in the study, however, one survey was eliminated from the data. The survey was eliminated because the student only completed one out of four pages. The researcher could not draw conclusions about the student's level of anxiety or perfectionism due to the lack of completed questions, therefore the survey was removed from the study. In addition, a set of four questions from the Almost Perfect Scale-Revised was eliminated from the data analysis. The set of questions removed was the order subscale, which measures preference for organization. The order subscale was removed from the analysis because it did not assist in identifying maladaptive perfectionists or an anxiety disorder. The order subscale did not pertain to the researcher's question, therefore it was not analyzed in the results.

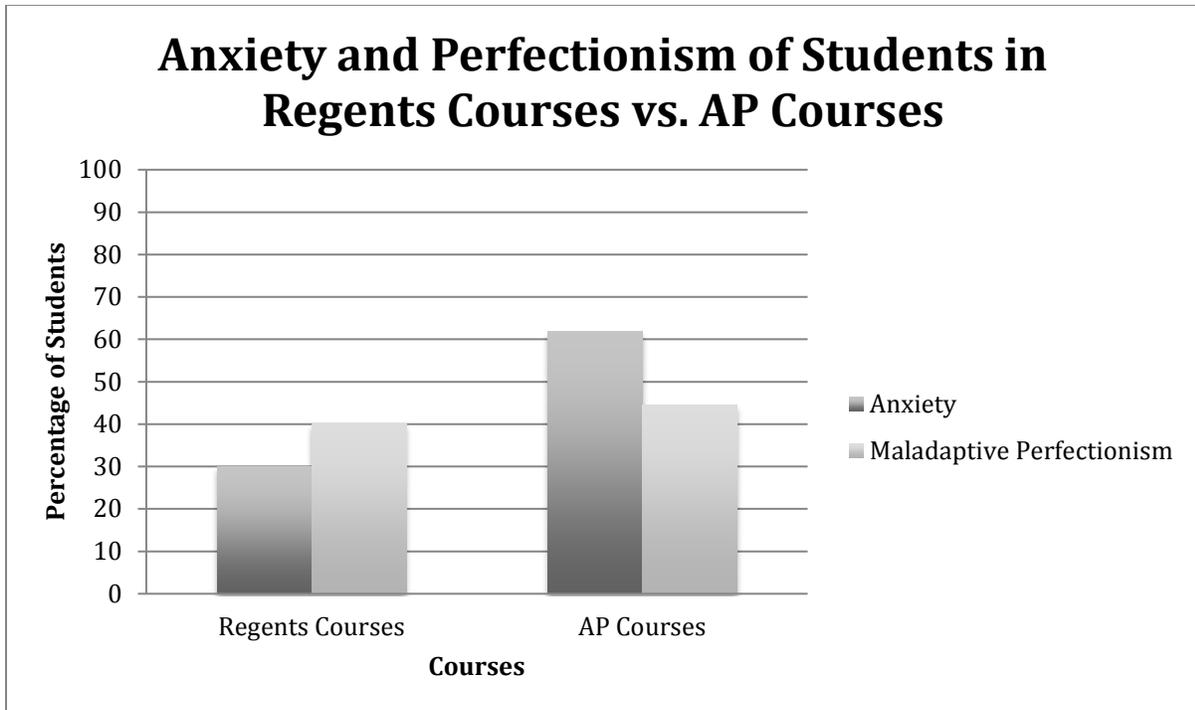
### **Statistics**

The total students surveyed, 56.9% scored a 25 or higher on the SCARED, potentially fitting the criteria for an anxiety disorder. 50.8% of the 65 students surveyed scored a 35 or higher on the standard subscale and 44 or higher on the discrepancy subscale of the APS-R, indicating maladaptive perfectionism. 30% of students enrolled in regents courses scored a 25 or higher on the SCARED, potentiality fitting the criteria for an anxiety disorder.

The participants were categorized into groups based on their academic course difficulty. Students enrolled in all regents level courses were compared to students enrolled in at least one AP course. Figure 1. Regents vs. AP Courses Comparison of Anxiety and Maladaptive Perfectionism is below. 40% of students enrolled in regents courses scored a 35 or higher on the standard subscale and 44 or higher on the discrepancy subscale of the APS-R, indicating

maladaptive perfectionism. 61% of students enrolled in AP courses scored a 25 or higher on the SCARED, potentially fitting the criteria for an anxiety disorder. 44% of students enrolled in AP courses scored a 35 or higher on the standard subscale and 44 or higher on the discrepancy subscale of the APS-R, indicating maladaptive perfectionism.

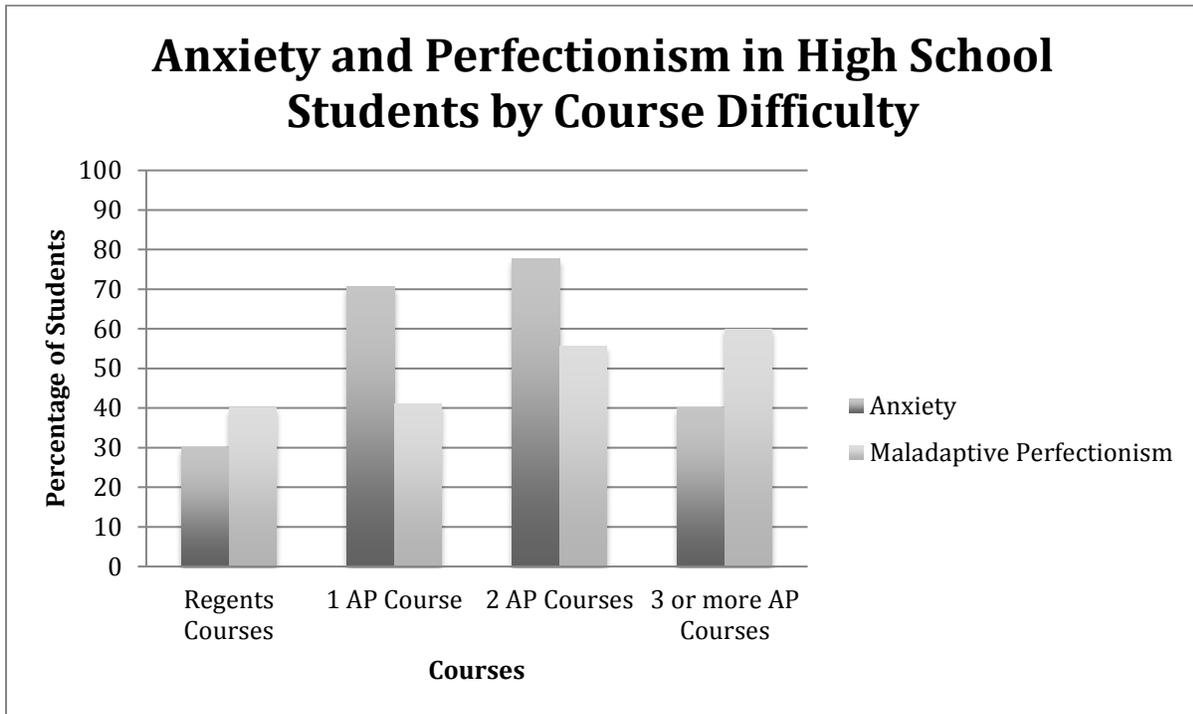
Figure 1. Regents vs. AP Courses Comparison of Anxiety and Maladaptive Perfectionism



Students were categorized based on the number of AP courses that they were enrolled in and compared to students that were enrolled in all regents level courses. Figure 2. Comparison of Anxiety and Maladaptive Perfectionism by Course Difficulty is below. 70.6% of students that were enrolled in one AP course scores indicated the presence of an anxiety disorder and 41.1% fit the criteria for maladaptive perfectionism. 77.8% of students that were enrolled in two AP courses scores indicated the presence of an anxiety disorder and 55.6% fit the criteria for maladaptive perfectionism. 40% of students that were enrolled in three or more AP courses

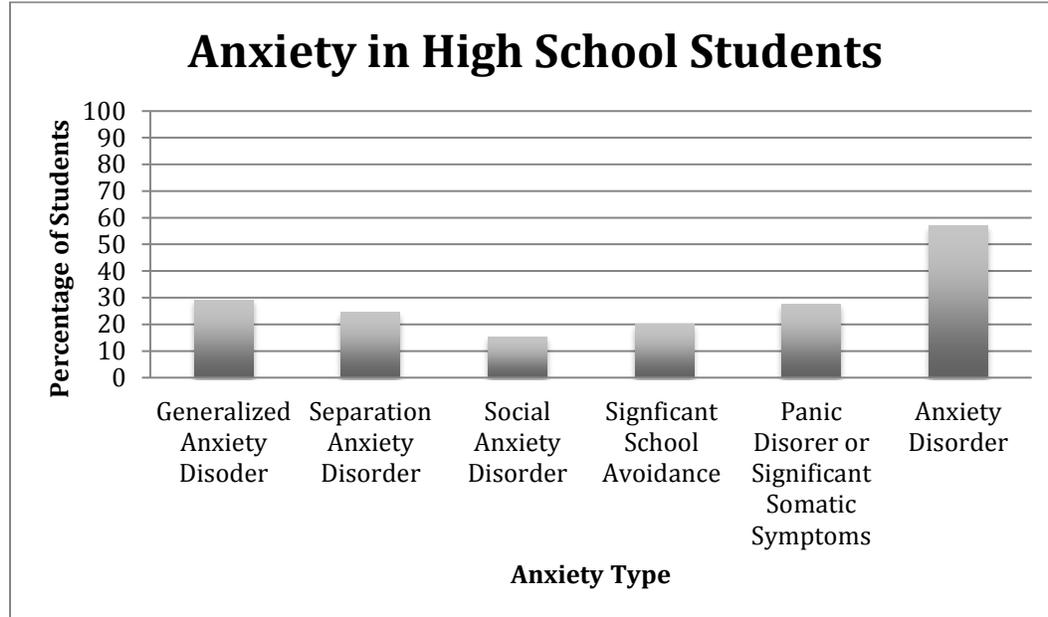
scores indicated the presence of an anxiety disorder and 60% fit the criteria for maladaptive perfectionism.

Figure 2. Comparison of Anxiety and Maladaptive Perfectionism by Course Difficulty



Further, the type of anxiety experienced by students was analyzed. Figure 3. Comparison of Anxiety Type in High School Students is below. 19 of the 65 students surveyed scored higher than a 30 on the SCARED, indicating a more specific type of anxiety. 29.2% of respondents potentially fit the criteria for Generalized Anxiety Disorder, 27.7% potentially fit the criteria for Panic Disorder or Significant Somatic Symptoms, 24.6% potentially fit the criteria for Separation Anxiety Disorder, 20% potentially fit the criteria for Significant School Avoidance, and 15.4% potentially fit the criteria for Social Anxiety Disorder.

Figure 3. Comparison of Anxiety Type in High School Students



### Discussion

The results supported the original hypothesis of the study. Students enrolled in AP courses had more anxiety and maladaptive perfectionism than students enrolled in regents courses. This finding suggests that there is a relationship between students enrolled in AP courses and anxiety and unhealthy perfectionism. Specifically, students enrolled in two AP courses had the highest levels of anxiety, followed by students in one AP course, students in three or more AP courses, and students in regents courses. This finding suggests that students enrolled in three or more AP courses are the high achieving students that are appropriately placed in high level courses. The students enrolled in one or two AP may have the highest percentage of anxiety because they are inappropriately placed in AP courses. These students may be pushing themselves to take one or two AP courses to be academically competitive, however they may not be developmentally ready to handle the rigorous coursework that an AP course requires. This is a problem because a high percentage of students are experiencing mental health

issues related to college level course curriculum in high school. Students enrolled in 3 or more AP courses had the highest levels of maladaptive perfectionism, followed by students in two AP courses, students in one AP course, and students in regents courses. This finding suggests that students enrolled in AP courses have set very high standards, however they do not believe they can meet those high standards. These students strive for perfect performance, but it is impossible to be perfect all of the time, especially in high level courses. Students measure their performance through grades and it is very difficult to earn an A in an AP course. Receiving a less than perfect grade is a reminder to students with maladaptive perfectionist tendencies that they are not achieving their high standards.

The results of this study support findings from previous research on anxiety disorders in adolescents. In the present study, the prevalence of anxiety was reported at much higher rates from past studies. For example, Hess (2014) found that 36% of adolescents fit the criteria for an anxiety disorder. Similarly, Merikangas (2010) found that nearly one in three adolescents fit the criteria for an anxiety disorder. In the present study, 30% of students in regents courses and 61.8% of students in AP courses fit the criteria for an anxiety disorder. This finding suggests that rates of anxiety disorders within adolescents may be increasing. Specifically, students enrolled in AP courses are at a higher risk of developing anxiety than students enrolled in regents courses.

### **Limitations of Study**

Time was a limitation of the study. In the future, more time should be dedicated to the recruitment of participants. If more time was allotted, the researcher could have surveyed a larger number of participants. It was difficult to find a large number of students that were willing to participate. There were no benefits for participants and students did not seem motivated to have their parental consent forms signed and returned to the researcher. Future studies may consider

offering a reward or benefits for students to participate. An incentive for students may increase motivation to participate. Due to the low number of participants, most of the students that participated in the study were enrolled in at least one AP course. The number of participants and unevenness of the regents versus AP groups are weaknesses of this study. In the future, it would be important to spend more time recruiting participants to find an even number of participants in regents courses and AP courses. Another limitation of the study was the racial makeup of the participants. The population was predominately white, therefore the findings cannot be generalized to a diverse population. It is important that future research use a more racially diverse sample. A racially diverse sample would allow the findings to be generalized to all students taking AP courses.

The findings from this research can be generalized to other high school students that are enrolled in college level course work. Specifically, the results can be generalized to students from predominantly white, middle class, suburban high schools because that population was used in the study. It would be difficult to generalize the results of this study to a racially and socioeconomically diverse group of students because the current sample lacked students representing those populations. The results of the study are important because they identify high achieving students as a population at risk for anxiety and maladaptive perfectionism. Future research is needed to continue investigating this problem and to bring awareness to high functioning students suffering from mental health issues. Future research is needed for the findings to be generalizable to all high school students enrolled in high level courses.

### **Implications for Counselors**

This study is important for counselors because it brings awareness to a population that is suffering from anxiety and maladaptive perfectionism. This knowledge provides school

counselors with an opportunity to take preventive steps towards addressing anxiety and perfectionism in high achieving students. This would involve offering support, including individual counseling, group counseling and tutoring services to students enrolled in AP courses from the beginning of the school year. In addition, this information has implications for school counselors when they are providing academic advisement to students. School counselors will be able to provide the students with both the positive and negative outcomes associated with taking AP courses. This information can help school counselors determine which students may be the best fit for AP or higher level courses. In addition, school counselors can be prepared to support students that may not be the best fit, but would like to pursue high level or college courses in high school.

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**Appendix A**

Grade: \_\_\_\_\_

How many AP classes are you currently taking? (Circle one) 0 1 2 3 or more

Instructions: Below is a list of sentences that describe how people feel. Read each phrase and decide if it is “Not True or Hardly Ever True” or “Somewhat True or Sometimes True” or “Very True or Often True” for you and check the appropriate box. You may skip any question.

	Not True or Hardly Ever True (0)	Somewhat True or Sometimes True (1)	Very True or Often True (2)
1. When I feel frightened, it is hard to breathe.			
2. I get headaches when I am at school.			
3. I don't like to be with people I don't know well.			
4. I get scared if I sleep away from home.			
5. I worry about other people liking me.			
6. When I get frightened, I feel like passing out.			
7. I am nervous.			
8. I follow my parents wherever I go.			
9. People tell me that I look nervous.			
10. I feel nervous with people I don't know well.			
11. I get stomachaches at school.			
12. When I get frightened, I feel like I am going crazy			
13. I worry about sleeping alone.			
14. I worry about being as good as other kids.			
15. When I get frightened, I feel like things are not real.			
16. I have nightmares about something bad happening to someone close to me.			
17. I worry about going to school.			
18. When I get frightened, my heart beats fast.			
19. I get shaky.			
20. I have nightmares about something bad happening to me.			
21. I worry about things working out for me.			
22. When I get frightened, I sweat a lot.			
23. I am a worrier.			

24. I get really frightened for no reason at all.			
25. I am afraid to be alone in the house.			
26. It is hard for me to talk with people I don't know.			
27. When I get frightened, I feel like I am choking.			
28. People tell me that I worry too much.			
29. I don't like to be away from my family.			
30. I am afraid of having anxiety (or panic) attacks.			
31. I worry that something bad might happen to my parents or loved ones			
32. I feel shy with people I don't know well.			
33. I worry about what is going to happen in the future.			
34. When I get frightened, I feel like throwing up.			
35. I worry about how well I do things.			
36. I am scared to go to school.			
37. I worry about things that have already happened.			
38. When I get frightened, I feel dizzy.			
39. I feel nervous when I am with my peers or adults and I have to do something while they watch me (for example: read aloud, speak, play a game, play a sport.)			
40. I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know well.			
41. I am shy.			

(Birmaher, Kheterpal, Cully, Brent and McKenzie, 1995).

**Appendix B**

Instructions: The following items are designed to measure attitudes people have toward themselves, their performance, and toward others. There are no right or wrong answers. Please respond to all of the items. Use your first impression and do not spend too much time on individual items in responds. Respond to each of the items using the scale below to describe your degree of agreement with each item. Check the appropriate box next to the question. You may skip any question.

	Strongly Agree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
1. I have high standards for my performance at work or at school.							
2. I am an orderly person.							
3. I often feel frustrated because I can't meet my goals.							
4. Neatness is important to me.							
5. If you don't expect much out of yourself, you will never succeed.							
6. My best just never seems to be good enough for me.							
7. I think things should be put away in their place.							
8. I have high expectations for myself.							
9. I rarely live up to my high standards.							
10. I like to always be organized and disciplined.							
11. Doing my best never seems to be enough.							
12. I set very high standards for myself.							
13. I am never satisfied with my accomplishments.							
14. I expect the best from myself.							

15. I often worry about not measuring up to my own expectations.							
16. My performance rarely measures up to my standards.							
17. I am not satisfied even when I know I have done my best.							
18. I try to do my best at everything I do.							
19. I am seldom able to meet my own high standards of performance.							
20. I am hardly ever satisfied with my performance.							
21. I hardly ever feel that what I've done is good enough.							
22. I have a strong need to strive for excellence.							
23. I often feel disappointment after completing a task because I know I could have done better.							

(Slaney, Mobley, Trippi, Ashby, & Johnson, 1996)