Bullying, Resilience, and Victimization: An Investigation Among Special Needs High School Students

Sandy Dawoud

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Abstract

While there is extensive research done on high school bullying, there is very little research on bullying in special needs high school students. Resilience levels may have an impact on prevalence of bullying behavior. In this study, high school special needs students were surveyed the Illinois Bully Scale and a shortened Connor-Davidson Resilience Scale to learn about their bullying behavior and resilience levels. The questionnaire measured four different subscales: bullying, fighting, victimization, and resilience. It was hypothesized that resilience levels will have an effect on bullying behavior measured by the Illinois Bully Scale.
Resilience, Bullying, and Victimization: An Investigation Among Special Needs High School Students

By

Sandy Dawoud

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Montclair State University

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BULLYING, RESILIENCE, AND VICTIMIZATION: AN INVESTIGATION AMONG SPECIAL NEEDS HIGH SCHOOL STUDENTS

A THESIS

Submitted in partial fulfillment of the requirements
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By
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Montclair State University
Montclair, NJ
2020
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Table 2: 2x2x2 Anova for IBS (Resilience x Age x Gender)

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<th></th>
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<th>MS</th>
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*p<.05
Figure 1. Effect of Age on IBS score.

![Figure 1](image1.png)

Figure 2. Results for 2x2x2 Interaction of Age, Gender, and Resilience for IBS Score

![Figure 2](image2.png)

Table 3. Mean IBS Subscale Scores by Age Group (Unweighted Means)

![Table 3](image3.png)
[Wilks lambda=.89591, F(3, 76)=2.9432, p=.03830]

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**Figure 2.** Effect of Age on Fighting
Literature Review

Bullying

The Centers for Disease Control and Prevention (CDC) has studied violence prevention focusing mainly on bullying. The study identified that bullying is one of the types of violence propagated by the youth and threatens their well-being (Center for Disease Control and Prevention, 2016). Bullying often leads to physical injuries, problems in academic performance, social, and emotional difficulties. The CDC research also discovered that bullying may affect other individuals such as close friends and family members who witness the pain that the bullied person experiences. In the long run, bullying can hurt the whole society and in particular the safety of schools and neighborhoods (Center for Disease Control and Prevention, 2016).

The CDC, therefore, defines bullying as “any unwanted aggressive behavior by a group of youths or youth who are not siblings or current dating partners which involve an observed or perceived power imbalance repeated many times or is highly likely to be repeated” (Center for Disease Control and Prevention, Violence Prevention, 2017, p. 10). Bullying causes pain and stress to the individual who is targeted, which may be physical, emotional, social, or psychological. The teens may be involved in different capacities such as being the victim, the perpetrator and in some cases, both the victim and the bully. The research conducted by the CDC also stated that bullying might take place either in person or through technology (Center for Disease Control and Prevention, 2017). When bullying takes place through technology, it is referred to as cyber-bullying, and it may
take different forms such as the use of instant messages, social media, chat rooms or even content displayed on a website.

The Illinois Bully Scale (IBS) is one tool that has been used to define the term bullying. The subscales are mainly used to measure bullying and victimization by conducting surveys among students (Espelage & Holt, 2001). The definition used by the CDC suggested that bullying must be repeated often or have a high likelihood that the behavior will be demonstrated again (Center for Disease Control and Prevention, 2017). As such, the Illinois Bully Scale concentrates mainly on identifying the frequency with which the bullying behavior is repeated in a period of thirty days.

The IBS measures the extent of bullying in two sections. One section examines the involvement of the students who are the perpetrators of the behavior. The other section is a survey of the victims to determine how often the behavior was demonstrated towards them in the past thirty days. Research conducted on gender differences in direct and indirect forms of bullying identified that the types of bullying behavior have been changing over the years (Kristin, Esbensen, & Brick, 2010). As such, more information has been added to the Illinois bullying scale to capture these additional types of bullying.

For instance, in assessing the number of times an individual experienced the bullying behavior, the original scale had information such as ‘other students picked on me,' ‘other students called me names' and ‘I got hit and pushed by other students (Espelage & Holt, 2001). Additional information on the scale may include information such as ‘Other students threatened me,' ‘students spread rumors about me' and ‘I was excluded out of a group of friends on purpose.' The scale is intended to identify the rate
of bullying behavior, and as such, there are no set norms for schools to follow in determining these levels (Rose, Espelage, & Monda-Amaya, 2009).

The IBS also emphasizes the need for the survey administrator to explain the need for their involvement and clarify any unclear issues to ensure that the students give the most reliable information (Shujja & Atta, 2011). The information provided should be scored using numerical values which indicate the number of times a behavior was performed or experienced. The results are then summed to determine a victimization and bullying score.

**Bullying in Special Needs Communities**

Special needs communities include all the individuals who require specialized care or skill. The special care may be physical, medical, behavioral, or even emotional. They include people living with a disability, individuals with autism, the old, orphans and so on. Research conducted over the years has indicated that people with disabilities have a higher likelihood to get bullied as compared to those with no known disabilities (Rose, Monda-Amaya, & Espelage, 2011). As such, past researchers have identified that although these persons are more likely to be bullied, they may still be involved as the perpetrators rather than the victims (Torrance, 2010).

There has been recent research conducted on the prevalence of involvement among a large-scale sample of middle and high school youth with and without disabilities (Rose, Simpson, & Moss, 2015) The researchers found that disabled students are involved in bullying as both victims and perpetrators. Their findings indicated that the
prevalence rates that are used to represent students with disabilities are often limited by identification issues, personal need identification, and measurement.

Conway and Leach (2009) examined perceived bullying and social support in students accessing special inclusion programming. The study compared samples of disabled and non-disabled students. The researchers discovered that students with disabilities were at a higher risk of perceived bullying and were more likely to lack social support even in their own communities. Although disabled students are often the principal victims of bullying, the researchers concluded that they also take part in the bullying behavior.

Research conducted on bullying and ostracism among children with disabilities indicated that children with special needs have a higher likelihood of being bullied and victimized (Twyman, et al., 2010). The researchers further identified that the prevalence of bullying has been increasing gradually over the years. Bullying affects the self-esteem and social skills of individuals with special needs.

This special population often have a greater need for support in all aspects of their lives. These people require psychological support, emotional care, and general education on how to live with their conditions. Chitiyo et al., (2012) discuss in their research on how to provide psychosocial care to children living with disabilities and suggested that some individuals engage in bullying behavior as a means of expressing frustrations. Additionally, Chitiyo et al. (2012) even focused on children living with AIDS and other chronic conditions and found that the reason they were involved in bullying their peers was that they had not received enough information on how to live with their conditions.
When individuals with special needs are empowered on how to live with particular conditions, research indicates that it reduces the prevalence of bullying behavior among people with disabilities. Kelly and Brahm (2014), researched bullying in mainstream and special schools, they found that most of the individuals with disabilities have learning difficulties in school. As such, most of them are involved in bullying their peers because they often feel frustrated. However, the research also indicated that when the learning difficulties are managed by using tutoring plans and improved teaching methods, the prevalence of bullying decreased considerably (Brahm & Kelly, 2014).

Research that focused on implementing a “whole-school” approach towards bullying among children with disabilities also indicated that helping these individuals deal with any personal issues assisted in reducing the prevalence of bullying among these communities (Rebekah, 2013). The whole-school approach focused on developing a cohesive, collaborative and collective action by the school community that strategically involves the school leadership in reducing and responding to bullying through appropriate means (Rebekah, 2013). The research identified that a whole-school approach involves all the stakeholders in a school community. In her research, Rebekah identified that children with disabilities often suffer from personal issues such as a low self-esteem, difficulties in learning and even social issues. In her research, she identified a whole-school approach that focused on personal development, language improvement, personal branding and only specific teaching methods (Rebekah, 2013). This study also employed methods that improve the self-perception of students such as self-confidence, interpersonal skills, communication and social skills and self-esteem. The results
indicated that when the self-perception skills of students were improved through continuous mentorship and guidance, the number of bullying cases reported to the school administration decreased significantly. The students had learned how to live with one another and interact peacefully.

**Bullying in High School Students**

Research was conducted by the US Department of Education to find out the extent of the bullying behavior in different levels of schooling (Gladden et al., 2014). The research reported that although physical bullying decreases as students transition from middle school to high school, the levels of emotional and verbal bullying either remains at a constant level or increases in high school. Of the students in the high schools that were surveyed 35% indicated that they had been bullied either emotionally or verbally. Only 9% of the students reported being bullied physically (Gladden et al., 2014).

Emotional and verbal bullying is harder for high school students to report as compared to physical bullying. Research conducted on cyber bullying behaviors among middle and high school students showed that lately, students do not use physical bullying as there are higher chances of being caught (Mishna et al., 2010). However, in verbal and emotional bullying, the victims often do not have enough evidence to prove their case against their perpetrators. Similarly, the government research identified nearly 64% of the students who were bullied failed to report the matter. Only 36% of the students reported and more than half of them had experienced physical injury (Gladden et al., 2014).

Kessel et al., (2012) researched a regional census of high school students involved in bullying, and reported that it is mostly the senior students who bully the junior
students. The research further determined that most of the senior students used harsh words against the juniors or commented in ways that were meant to demean them causing emotional trauma. In a study on bullying among Turkish high school students, the researchers found similar patterns of harassment (Kepenekci, 2012). Kepenecki (2012) identified that most of the students who were bullied appeared to be the smartest students. The research reported that the senior students felt intimidated by such junior colleagues and as such, they were looking for ways to demean them. Ken (2009), who conducted research on peer victimization at school and the health of the secondary level students, found that bullies often have the need to feel stronger than their peers. The research showed that nearly all the students who had been reported as bullies have a history of being disorderly at school (Ken, 2009). Similarly, Anne (2010), in her research on high school practices associated with reducing bullying and victimization demonstrated that most of the bullies also had a series of other issues. Some of them were drug users who either brought drugs to school or used them at home while others were poor academic performers.

Some schools were also identified to have higher prevalence of the bullying behavior as opposed to others (Center for Disease Control and Prevention, 2011). The students who were enticed into bad behavior such as drug use and trafficking, stealing and sneaking out of school in their junior years are more likely to continue with the culture of bullying even after the seniors leave school or become subject to expulsion. A study on the rate of bullying among male Australian high school students also indicated that students in schools with higher academic performance have a lower likelihood to be
bullies as opposed to those who are in poor performing schools (Sakellariou, Caroll, & Houghton, 2012). Students in schools with high performance often feel the need to protect the reputation of their schools and maintain the standards therein, and therefore, they quickly shun any bullying behavior.

**Bullying in High School Special Needs Students**

Students with special needs are usually at higher risk to be bullied in high school as compared to other students. The disabilities of these students vary greatly from developmental issues, emotional problems to sensory disabilities. A study was conducted on the perceptions of young victims in the Midwestern USA (Hoover, Oliver, & Hazler, 2012) and found that students with disabilities are often an easy target for bullies for many reasons. Some of the perceptions shared by the adolescents included the social skill challenges that the special needs students have, their physical vulnerability and even the intolerant environment in the school.

Spillage and Swearer (2013) conducted research to understand the steps that stakeholders ought to take to ensure that bullying of special needs students is reduced in high schools. The study helped them to understand that physical bullying of the students with disabilities had reduced significantly due to the emphasis of the US Department of Education Office for Civil Rights on the need to take action on bullying (National Bullying Prevention Center, 2017). However, most of the students with disabilities often receive emotional and verbal harassment instead.
A study conducted on bullying among special students with intellectual disabilities found that the verbal and emotional techniques used by bullies such as hurling insults, use of demeaning words or calling the students names are just as dangerous as physical injury (Reiter & Lapidot-Lefler, 2007). The bullies often make fun of the students with special needs, and this makes the students with special needs feel exposed and they tend to become the “laughing stock”. Students living with disabilities become frustrated more quickly as compared to the other mainstream students. Moreover, they are less likely to fight back the bullies (Swearer et al., 2012). Since bullies are often seeking to appear stronger or gain control over a particular group of people, the students with special needs are easy targets.

Students with disabilities often get stuck in conversations because they may have difficulties paying attention to multiple pieces of information (Glew, Fan, & Katon, 2015). As such, this may make it difficult for them to communicate openly and make friends. They are often seen walking alone along school pavements and even in the dining areas. Research conducted on high school practices associated with lower bullying and victimization identified that bullies often walk in groups and as such, they are likely to attack the special needs students who are often alone (Anne, 2010). The study further suggested that if students with disabilities were taught how to improve their interpersonal and social skills, it would decrease the widespread prevalence of the bullying behavior significantly (Anne, 2010). The students would be in a better position to create friends and as such stand up to the bullies. Conway and Leach (2009) studied social support in students accessing special inclusion programming. They found that those students with
motor skill difficulties were also at high risk for experiencing bullying (Conway & Leach, 2009). The students with special needs also have difficulties engaging in healthy activities such as kicking a ball or artistic works which make them easier to segregate (Juvonen, Graham, & Schuster, 2013).

Students with disabilities in high school often study in the same settings as those who have no known disabilities (Frisen, Jonsson, & Persson, 2007). The students are also treated in similar ways especially regarding tests teachers assign and even grading of results. Thus, the special needs of the students become less visible, which makes it harder for their peers to understand the special needs of the students living with disabilities. The mainstream students do not understand their conditions and as such end up bullying them.

Bullying of students with special needs during their high school education is widespread, and it is necessary to reduce it. A study conducted to identify a means to ensure effective transitioning for students from middle to high school, found that if students were trained on diversity and how to cope with it, it would help them understand the challenges faced by students with disabilities (Cauley & Jovanovich, 2012). This diversity training would assist them in becoming more empathetic towards them, and this would reduce the rate of bullying behavior significantly. Moreover, there is a need to establish clubs and societies that involve the individuals with disabilities in the community to create an inclusive environment (Cook, Semmel, & Gerber, 2010). The clubs and societies will expose the students to the people living with disabilities and through continuous interaction, they will learn how to live with them. Thus, it will reduce the likelihood of the mainstream students bullying the students living with disabilities.
**The Impact of Bullying on Adolescents’ Well-Being**

Bullying not only affects the well-being of the victims in their adult life but also during their teenage years. A study conducted on the emotional impact of bullying on victims identified that they have a high probability of suffering from depression and anxiety which results in feelings of sadness and loneliness (Ortega, et al., 2012). The depression and anxiety may extend to other parts of their lives and even affect their relationships with their loved ones. Depression and anxiety in teenage years may lead to changes in sleep and eating patterns which also influence the health and well-being of the victims (Kowalski & Limber, 2013).

Victims of bullying also lose interest in most of the activities they used to enjoy (Arseneault, Bowes, & Shakoor, 2010). As a consequence, they fail to get involved with their peers. They also prefer to stay alone during social events at school, home and even avoid discussions. The impact of bullying ends up affecting their social life, and such issues may persist into their adult life if not handled efficiently.

Research conducted to understand multiple types of harassment among adolescents also indicated that individuals who have been bullied have a high tendency to drop in their academic performance (Carney & Merrell, 2011). The bullying behavior often makes the victims fearful, and as such, they resort to avoiding school. Moreover, their participation in school activities, especially in class activities, is also reduced and this affects their concentration in class.

In their research on bullying, cyberbullying and suicide, Hindu and Patchin (2010) discovered that the victims of bullying often choose to remain silent in class.
because their self-esteem is damaged. In severe cases, victims of bullying end up dropping out of school entirely (Salmivalli, Kama, & Poskiparta, 2011). The research further sought to identify the link between suicide and bullying among adolescents (Hinduja & Patchin, 2010). It was found that people who had been bullied had a higher likelihood of experiencing suicidal thoughts as opposed to individuals who had never been bullied. The victims of bullying view suicide as a means of ending their frustration and pain caused by their perpetrators, as they feel it will never stop (Hinduja & Patchin, 2010).

A study was conducted on long term effects of bullying on the bullies themselves. The researchers found that most of these kids end up engaging in violent and risky behaviors in their adult life (Turner, Exum, Brame, & Holt, 2013). During their teenage years, these individuals are likely to abuse alcohol and other drugs. Drug and substance abuse often influence an individual’s ability to make sound decisions. Bullies also get involved in other disciplinary issues such as fighting with their peers, vandalizing property and even selling drugs (Hershcovis, 2011). Moreover, most of them end up dropping out of school due to frequent suspensions from one or more institutions of learning (Perren, Dooley, Shaw, & Cross, 2010).

Vanderbilt and Augustyn (2010) investigated the effects of bullying and found out that most of the adolescents who were perpetrators were also likely to be involved in early sexual activity (2010). A similar study interviewed one hundred and eighty-seven individuals who had bullied their peers either in middle or high school (Espelage, Basile, & Hamburger, 2012). The respondents were aged between twelve and eighteen years.
Half of them stated that they were sexually active by the time they were fifteen years. Eighty of them also stated that they had been involved in sexual activity with more than four partners.

To assess bullying and suicidal behaviors among urban high school youth, one study indicated that most of the bullies are often abusive to their siblings (Hepburn, Azrael, Molnar, & Miller, 2012). Researchers also found that the bullies are problematic children and most of their relatives do not prefer spending time with them, which makes them distant from family (Murray-Harvey & Slee, 2010). Thus, the bullying behavior not only affects their social skills during their teenage lives, but may also later when they become adults.

Bullying also hurts bystanders who are the individuals who witness the bullying of their peers. Research indicates that the witnesses to bullying are likely to have increased mental health problems, such as depression and anxiety (Hymel & Swearer, 2015). In most cases, bystanders only watch as their friends are getting bullied because they are afraid that if they speak out, they may end up being the next victims. As such, they end up feeling helpless which makes them experience mental health problems. Although in some cases the bystanders intervene during the bullying, the images of the events also haunt them and may cause anxiety and depression (Harel-Fisch, et al., 2011).

The bystanders, who witness bullying, are also at high risk to use alcohol, tobacco, and other drugs when compared with their counterparts who have never witnessed any bullying (Carbone-Lopez, Brick, & Esbensen, 2010). The bystanders often are disturbed by the images in their mind. They also feel regret that they could not help
their peers who were being bullied. As such, they may resort to substance abuse with the hope that it will help them forget some of these unpleasant memories.

**The Role of Resilience in Bullying**

Resilience is the ability of individuals to recover quickly from the bullying behavior (Cauley & Jovanovich, 2012). Resilience is critical in managing the bullying behavior among adolescents. Resilience helps people develop methods that are specific for certain school environments.

A study conducted by the National School Climate Center indicated that 50% of all students feel insecure in their schools (Becher, 2017). They reported that the causes of this insecurity were mainly caused by the prevalence of bullying behavior in the school (Becher, 2017). Resilience helps in improving the climate in a school as it concentrates on providing care and support, increasing prosocial bonding and setting clear and consistent boundaries. Moreover, resilience also focuses on teaching life skills to the students (Espelage & Swearer, 2013). The life skills they are taught help in improving their confidence against the bullies in their schools.

Resilience helps in developing supportive relationships that work for both the students and staff at school. The relationships make it easy for the students facing emotional and verbal abuse to share these issues with the relevant arms of the school administration. The students feel that their teachers and support staff are likely to believe them more if they have close relationships. The relationships reduce the number of
bullying cases that are not reported and eventually the prevalence of the behavior (Chitiyo, Changara, & Chitiyo, 2012).

Harassment among high school students and individuals with disabilities is closely linked to the lack of empowerment (Frederickson, 2010). Resilience ensures that the students, especially those with special needs, are empowered on how to live with their disabilities and cope with harassment from their peers. It also helps ensure that the students with no known disabilities are educated on how to coexist comfortably with the disabled students. Due to this engagement, the prevalence of the bullying behavior is reduced significantly as the students view each other as valued members of the school community (Swearer, Wang, Maag, Siebecker, & Frerichs, 2012). The administration is also perceived as resources in the community, which makes it easy for them to deal with all reported cases of bullying.

Resilience also creates high presumptions both academically and behavior wise (Carrera & DePalma, 2011). As such, it establishes rules and boundaries that are clear to the students. Schools with high discipline standards and performance expectations are less likely to get involved in bullying behavior as opposed to those who do not set high expectations (Torrance, 2010). The students understand that the relevant authorities are always supervising and have policies in place to ensure compliance and failure to act in line with set standards may cause them problems such as expulsion or suspension. As such, resilience may reduce the prevalence of bullying by challenging the students to concentrate to meet established standards.
Resilience Training that Has Reduced Bullying

Resilience training in schools has been seen to reduce the rate of bullying in most cases (Rebekah, 2013). One of the most effective training programs is the awareness-raising efforts (Salmivalli, Kama, & Poskiparta, 2011). The awareness-raising program focuses on involving all the stakeholders which includes teachers, students, and parents by making them understand the prevalence of the bullying behavior in schools (Salmivalli, Kama, & Poskiparta, 2011). The stakeholders also understand how the bullying behavior affects the learning environment in the school. The awareness also includes empowerment session especially for both the teachers and the students. As a result of the awareness, the stakeholders join hands in altering the climate of a school which in turn reduces the prevalence of bullying therein (Salmivalli, Kama, & Poskiparta, 2011).

A study on perspectives for understanding and preventing bullying as a universal problem identified that school exclusion is also another resilience effort that has led to a reduction in the prevalence of the bullying behavior (Carney & Merrell, 2011). Most schools adopt the ‘zero tolerance’ policy which dictates that if a student is identified as a bully, he or she should be excluded from the school (Anne, 2010). When bullies realize that intervention may be so severe when their bullying is reported, they avoid the bullying behavior altogether. Serious response measures also encourage the victims and bystanders to report any bullying behavior because they feel protected when the bully is suspended from the school. This contributes to a reduction in the prevalence of bullying behavior.
Bullies have been identified as individuals coping with personal issues that may relate to poor upbringing, difficulties in learning, self-esteem issues, loss of a loved one or even depression and anxiety. Resilience programs that concentrate on therapeutic treatment for bullies have also contributed to a decrease in bullying behavior. The bullies also get the opportunity to interact with counsellors and psychologists who act as mentors to them. When the bullies learn better ways of channeling their personal issues and how to gain authority over their peers, they may be likely to quit the bad behavior. Better school involvement and intervention processes can reduce the prevalence of bullying.

**Hypothesis**

It is hypothesized there would be a strong positive correlation between high resilience levels and bullying behavior among special needs high school students. A secondary hypothesis is that age would be a determining factor for the reported rates of bullying on the Illinois Bullying Scale (IBS). Younger students would be more likely to exhibit bullying behavior. Those who are more resilient will report less victimization, less bullying instances, and less fighting. The bullying behavior will be measured by using the 18-item Illinois Bullying Scale. Resilience level will be measured using a 10-item modified version of the Connor-Davidson Resilience scale.
Method

Participants

The sample was collected from the population of special needs high school students exclusively attending one school in a small suburban city who were all on the autism spectrum. Participants were students between the ages of 15-21. This sample contained students representing many different disorders such as mild learning disabilities, developmental delays, occasional panic attacks, being prone to seizures, behavioral disorders, and different levels on the autism spectrum. All students were literate and cognitively able to complete the questionnaires independently. There were 56 male and 30 female subjects. Among the 86 participants, the mean age was 17.7, while the most frequently reported age was sixteen.

Procedure

All students received a letter describing the study and soliciting parental consent. An assent form for the students to read and sign was also included. Parents either returned the consent form to their child's teacher in person or had the child return it to the teacher in a sealed envelope (provided to parents along with the consent form). Two weeks from the time the letter was sent home, students' whose parents provided consent for the study (heretofore referred to as "potential participants") were presented with an opportunity in homeroom to learn about and participate in the study. Potential participants were recruited during their "enrichment" time (unstructured time in which students were permitted to disperse throughout the school and engage in a non-academic/recreational activity of their choice). On July 6th, 2017, at the end of their last
academic class, potential participants were asked to go to the auditorium to learn more about the study. Students whose parents did not consent were dismissed to enrichment time and were not present in the auditorium during recruitment. The researcher read verbatim from a recruitment script to describe the study (see Appendix). After the study was described briefly, potential participants had the opportunity to stay and participate in the study if they chose to do so or to leave the room and continue with their routine activities. At this time, the researcher left the room, leaving the school nurse (the monitor) in the room to supervise the students. The nurse was the designated monitor in case of a medical emergency as she has no jurisdiction over grades. Students were once again, made aware that this would not affect their grades or status at the school.

Students were seated one seat apart in the auditorium. The auditorium has labeled individual seating for up to 300 guests, leaving ample space between all students. The surveys were handed to the students in an unmarked manila envelope while they were seated one seat apart, to make sure nobody could see any others' answers during or after the survey. At the end of the survey, they placed their packets back into the manila envelope and stacked them in the front of the auditorium. They were then collected by the school nurse after the last questionnaire had been completed and then handed back to the researcher. Once students handed in their envelope, they were dismissed back to their enrichment period.

The Illinois Bully Scale (Espelage & Holt, 2001) was used in the study. The scale consists of eighteen item scales that are further broken down into three sub-scales that assess the occurrence of victimization, bullying, and fighting among a population. On
aggression, the victim sub-scale score has a minimum of 0 and a maximum of 16, the bully sub-scale a minimum of 0 and a maximum of 36, while the fighting sub-scale has a minimum score of 0 and a maximum of 20. The higher the score, the higher the occurrence of victimization, bullying or fighting.

To measure resilience, the shortened Connor-Davidson resilience scale was administered (Conner & Davidson, 2003; Campbell-Sills & Stein, 2007). This shortened scale consists of ten items that measure resilience with each item having a low score of 0 and an upper limit score of 4, the total score has a range of 0 to 40. A score closer to the maximum score of 40 indicated greater resilience and vice versa.

Each student was given a score per subscale: Bullying, Fighting, Victimization, and Resilience. The data collected from the students was also grouped by age into two categories: age category 1 (ages 15-17) and age category 2 (ages 18-21).

Results

Summary statistics for the Bullying scale and for the resilience Scale are shown in Table 1. The range for the Connor-Davidson resilience score was 24 to 38 with a mean of 30.8488. This indicates that the sampled persons had an above average resilience. The respective standard deviations are also shown in Table 1.

In order to examine the first hypothesis, a 2 (Resilience) by 2(Age) by 2 (Gender) ANOVA was conducted with the IBS total score as the dependent variable. Table 2 shows the results of the ANOVA indicating that there was a main effect for age and a 3-way interaction. These results reflect that the younger students had lower total IBS scores than the older students (F 84,1=6.623 p=.012). This is illustrated in Figure 1.
The three-way interaction is illustrated in Figure 2. Figure 2 shows that males and females differed in the relationship between resilience and IBS score. Males showed no difference in IBS score among the low resilience students across age while the younger boys in the high resilience group showed lower IBS scores than their older counterparts. The results for the girls had a different pattern of results for IBS score. Among the girls in the low resilience group, the younger girls showed lower scores on the IBS than the older girls while there were no age differences in the high resilience group.

In order to obtain greater clarity, it was decided to examine the sub scores that make up the IBS total. In order to do this, a MANOVA was conducted using the three sub scores, victimization, bullying and fighting as dependent variables. This analysis showed a main effect for age and no other statistically significant effects (F 76, 3 =2.943, p=.038). To further parse this effect into its component parts, three way ANOVAs were carried out on each of the subscores.

The means and standard deviations for the three sub scores that make up the IBS, victimization, bullying and fighting are presented in Table 3 according to the two age categories.

As can be seen, the older group has higher scores for each of three components. Accordingly, three way ANOVAS were carried out on the three sub scores. The results of the analyses for victimization and bullying showed no statistically significant main effects or interactions. The analysis for fighting, on the other hand showed a significant main effect for age (F 76,1 =7.07. p=.007). This is illustrated in Figure 2.
As can be seen, as the students get older, their likelihood of engaging in fighting behavior increases (Figure 2). Thus, age group and likelihood of fighting are strongly correlated.

Discussion

Resilience levels and age group were divided into two categories: low and high. Low resilience meant a score of 30 or less on the Connor-Davidson scale, and high resilience was anything over a score of 30. Age group 1 represented those between the ages of 15-17, and age group 2 represented those between 18-21.

The findings suggest that the initial hypothesis is not rejected, as there is a correlation between resilience and total bullying behavior (Table 2). There was a statistically significant interaction for resilience levels and age and gender (p=.040). Overall, the younger students had lower IBS scores (F 1,78) =6.6230, p=0.112). This may be due to the fact that they have not been in school as long as the older students (ages 15-17 are typically freshman and sophomores), so they have not experienced overall bullying activity as much as their older counterparts. Lower scores on the IBS are a good thing, as they indicate these students are less likely to partake in fighting, fall victim to bullying behavior, or be the bully. As students get older, they score higher on the IBS scale. This is important to consider when implementing any sort of bullying intervention program. Starting a prevention program early in the high school career may keep total scores down (and way less bullying behavior) as they continue to move up grade levels.
Additionally, resilience levels do play a role in male IBS scores. Figure 2 illustrates the relationship between both genders and their respective IBS and resilience scores. Younger males in the high resilience group had lower IBS scores. This relationship implies that within male groups, having a high resilience level at an early age may reduce the likelihood of the students partaking in bullying behavior over time. For females, the relationship between resilience levels and IBS scores did not show a direct positive relationship. Younger girls in the lower resilience group had lower IBS scores than their older counterparts, but the older girls did not have any main age differences. This may imply that resilience levels in females are not as important to their bullying experiences as it is for males.

The Secondary hypothesis was that there is a strong correlation between age and bullying behavior (IBS scores). The findings suggest there is no direct relationship with age and all IBS subscale scores, but rather a direct relationship between the fighting subscale and age category for our sample size, (F 76,1 =7.07. p=.007). The findings in figure 2 show that on average, the younger age group is less likely to partake in fighting behavior. Figure 2 also illustrates a positive trend that as students get older, they are more likely to partake in fighting behavior. This data can be explored further to see how resiliency levels and fighting behavior among special needs high school student’s changes during their stages of high school.

Unfortunately, resilience levels did not directly correlate with any of the subscales on the IBS. However, the mean resilience scores for each age category and gender can help to further explore why younger males have higher resilience than their female
counterparts, and how this in turn, leads to a lower chance of partaking in bullying behavior (figure 2). Older males show lower resilience levels than their female counterparts. A longitudinal study about resilience levels and any resilience building over the duration of high school between males and females may be able to better explore these scores.

Students with disabilities often have social difficulties which may make it hard for them to communicate or recognize bullying behavior (Brahm and Kelly, 2014). Bullying affects the victims to a large extent as they are likely to develop mental health problems and even drop out of school in the long run (Reiter & Lapidot-Lefler, 2007). The individuals who witness bullying also experience mental problems such as feelings of helplessness that may lead them to drug and substance use (Hershcovis, 2011). Based on the results showing there is a correlation with age, resilience, and IBS scores, using grade level as a mediator for anti-bullying programs in special needs students may be beneficial in teaching anti-bullying methods early in their high school career to avoid the likelihood of physical fighting. Therefore, resilience programs are important for the students as they empower them on how to live with each other amidst diversity. Resilience also helps to develop relationships between teachers and students which makes it easy to report the cases of bullying. While these results did not show a correlation between resilience and bullying behaviors (all IBS sub scores), resilience training and bystander intervention can alleviate bullying behaviors altogether if practiced early in high school. For students with special needs, a population-targeted bystander intervention program may also be an effective method to lessening bullying behavior and likelihood of fighting. The data was
conclusive enough to support the initial hypothesis, and did support the secondary hypothesis by showing relationships between age, gender, and specific fighting behavior.

**Limitations**

A limitation to this study is the convenience sample of all 86 participants being exclusively from one school. Additionally, there is no breakdown of each participant’s disorder. It would have been beneficial to know the prevalence of disorders and disabilities to compare to the gender differences across the resilience and fighting subscale. There were no direct strong correlations between high resilience levels and bullying behavior (total IBs scores) in both age groups and genders. If the sample size was extended to other schools from regions across the country, there may be a difference in reported rates due to anti-bullying policies and state regulations. This data set did not yield strong results because the school had an anti bullying policy in place. While students reported a higher chance of fighting, they did not report a high rate of victimization.

Due to the data being anonymous, it is difficult to confirm each individual’s self-assessment. While self-reported measures can be beneficial and reliable (Holfve-Sabel, 2014), future research on this subject should include assessments from school administrators and parents. Students who are on the autism spectrum or have a disability may not recognize bullying behavior to accurately report it. A large-scale study with individual diagnoses and data that is both reported and self generated can better help with understanding the prevalence of fighting, bullying, victimization, and resilience amongst special needs high school students within specific needs groups.
Conclusion

In summary, the findings suggest that special needs high school students are more likely to partake in physical fighting behavior than experiencing victimization or general bullying behavior (as defined in the IBS). This study highlighted gender differences in the fighting and resilience subscales. While there was no strong correlation between the resilience levels and overall bullying behavior, there was a difference between resilience levels and gender. Female participants showed that resilience levels increase as they get older, while male resilience levels decrease as age increases. This correlation could be studied on a larger scale to establish high school resilience or bystander intervention programs tailored for each gender or age group. The findings in this experiment can contribute in making effective bullying-prevention interventions for special needs youth by incorporating resilience as a leading piece in the intervention.
References


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