

Optimistic bias and resilience among child and adolescent victims of bullying

Abstract

This study evaluated a sample of children and adolescents (N=651) in order to examine the previously unexplored connection between optimistic bias and resilience in relation to views on bullying and the impact of bullying events and actions. Children and adolescents tend to view themselves as less likely than their peers to become the victim of bullying, thus displaying optimistic bias. While experience with bullying decreases this optimistic bias, optimistic bias contributes to individuals being less prepared for bullying and therefore less resilient following a bullying event. Moreover, experiences with bullying are not a desirable means of resolving optimistic bias. Our research found that while a bullying event may decrease optimistic bias for a child or adolescent, if the optimistic bias was high to begin with then that child or adolescent will be less resilient following the bullying event.

Keywords: optimistic bias; resilience; bullying; children and adolescents

Optimistic bias and resilience among child and adolescent victims of bullying

The Center for Disease Control and Prevention (CDC, 2020) defines bullying as “any unwanted aggressive behavior(s) by another youth or group of youths, who are not siblings or current dating partners, that involves an observed or perceived power imbalance, and is highly likely to be repeated.” Bullying is a common phenomenon as nearly 14 percent of public schools report that bullying occurs every week. With middle school students ranking first for most bullied students at 28%, high school students rank second at 16%. Students are at an even higher risk for cyberbullying. Bullying victims experience a multitude of issues including physical injury, social and emotional distress, self-harm, death, depression, anxiety, sleep difficulties, lower academic achievement, and dropping out of school. Bullies are at a higher risk for mental health and behavioral problems, substance misuse, academic problems, and experiencing violence later in adolescence and adulthood (CDC, 2020). To stop bullying, the CDC recommends universal school-based programs to strengthen the youths’ skills in combatting bullying and modify the physical and social environment of bullies. The purpose of this study is to explore the relationship optimistic bias, resilience, and bullying. The data was drawn from a school-based violence-prevention program.

Optimistic Bias

Optimistic bias (OB), as first defined by Weinstein in 1980, describes the mindset of people who believe both that negative events are *less* likely to happen to them than to others and that positive events are *more* likely to happen to them than to others. Over the last two decades, hundreds of articles continue to be published that apply OB to various unique and emerging contexts. Most recently, OB has been studied in terms of COVID-19 and the relationship between an individual's perceived risk of catching the virus and the preventative measures they did or did not take to avoid catching the virus (Park et al., 2021; Monzani et al., 2021). These studies found that individuals with greater optimistic biases were indeed less likely to make behavioral changes to lower their risk of catching the virus. Similarly, many studies have found connections between OB and the ease of quitting smoking as well as the perceived risk of continuing to smoke (Masiero et al., 2018; Jun & Nan, 2018). Beyond biological health, we also know that OB impacts our environmental and mental health by turning a blind eye to social risks such as school violence, various forms of assault, and bullying (Chapin 2016; Chapin & Pierce, 2012; Chapin & Coleman, 2006).

High levels of optimistic bias contribute to an unwillingness to acknowledge personal risk; and without the realization of personal risk there is little motivation to prepare oneself to recover from a negative event. Moreover, OB impacts the likelihood of updating one's views on various life events in the face of new evidence. Essentially, if a person believes they are unlikely to be bullied and are then confronted with new information showing how high their likelihood actually is, (if they have a high OB) they are still *unlikely* to update their mindset regarding their risk of being bullied. This points to the pervasiveness of optimistic bias: it rebukes most efforts to update attitudes about the perceived risk of a possible negative outcome despite conflicting

information about actual rates of incident. Ironically enough, it is precisely the resilience of optimistic bias that interferes with developing actual resilience.

Optimistic Bias and Experience

One silver bullet against OB seems to be personal experiences. A person may believe they can drive recklessly without getting into an accident despite warnings from others or information presented to them, but if that person's driving does end up causing an accident, then they are more likely to recognize the actual risk associated with their behavior. Essentially, personal experiences have a high chance of reducing or removing OB related to the experience in question (Weinstein 1987; Van der Velde, Hooykaas, & Van der Pligt, 1992; Helweg-Larsen, 1999). The impact of this experience is more complex than simply eliminating OB, though, if individuals with high levels of OB are less likely to develop resilient behaviors and mindsets.

Resilience

There are five types of resilience: adaptability, emotion regulation, optimism, self-efficacy, and social support (APA, 2021). Adaptability is the capacity to make appropriate responses to changed or changing situations. Emotion regulation, also known as emotional regulation, is defined as the ability of an individual to regulate an emotion or set of emotions. Optimism is defined as hopefulness or the attitude that good things will happen and that people's wishes or aims will be fulfilled. An individual who is an optimist anticipates positive outcomes and is confident that they will accomplish their goals. Self-efficacy, also known as perceived self-efficacy, is an individual's perception of their capability to perform in a given setting to attain desired results. Social support is the assistance provision or comfort to others, typically to help them cope with biological, psychological, or social stressors. An individual may receive social support through interpersonal relationships within their social network such as family, friends, neighbors, religious institutions, colleagues, caregivers, or support groups.

Based on a study of over 6,000 middle school students (Aldridge, 2019), higher levels of resilience are positively associated with strong and positive peer relationships, a sense of belonging and being valued by the school, and clear school rules and expectations. Aldridge also explored the relationship between school climate and bully victims and found that positive student perceptions (affirming diversity, reporting, and seeking help) were positively associated with slightly higher levels of bullying than past research has shown. Results indicated that students' life satisfaction is positively associated with perceptions of school connectedness, school-wide order, and discipline; and bully victimization was negatively associated with life satisfaction. Students who reported more resilience were more likely to report satisfaction with life (Aldridge, 2019).

Another study (Folayan, 2020) explored the relationship between childhood experiences (ACE), bully victimization, self-esteem, resilience, and social support in adolescents in Nigeria. Folayan found that resilience was positively associated with fewer ACE, higher self-esteem, and higher bully victimization. In addition, social support was negatively correlated with ACE and bully victimization. However, social support was positively associated with higher resilience and self-esteem. Finally, higher self-esteem was positively associated with fewer ACE and lower bully victimization, whereas bully victimization was positively associated with ACE.

Kabadayi (2018) explored the role of resilience in predicting cyberbullying perpetrators and their victims, finding negative and significant relationships between cyberbullying perpetration and resilience. Kabadayi reported negative and significant correlations between cyber victimization and resilience. Resilience was a significant predictor for cyberbullying perpetration and cyber victimization.

Past research has shown that anti-bullying programs improve resilience and self-efficacy in adolescents (Greco, 2021). Greco examined the effect of a 12-week extracurricular multilateral teaching course on the risk of bullying in adolescents. Students were surveyed and assigned to an experimental group that performed psychoeducational activities combined with physical exercise

training and team games or a control group. Overall, they found that the program improved resilience and self-efficacy in adolescents.

Alternative anti-bullying strategies have also been documented to improve resilience and self-efficacy in adolescents (Greco, 2019). One hundred students from three high schools, consisting of students ages 14-16, were surveyed and randomly assigned to an experimental group that performed technical Shotokan karate practice and psychoeducational activities or a waitlist control group. Findings indicated that karate-based psychosocial interventions may improve resilience and self-efficacy in adolescents and make them less likely to engage in aggressive behavior or be bullied.

Adaptability

In an attempt to explore mobile phone use, cyberbullying, and emotional intelligence in adolescents, Mendez (2020) examined whether there were significant differences in emotional intelligence and cyberbullying between adolescents with a mobile phone use problem. Among tests to establish socio-demographic variables, a questionnaire related to students' phone experiences and students' perceptions of bullying, a questionnaire on students' emotional inventory looked at the dimensions: intrapersonal, interpersonal, adaptability, stress management, and general mood. Eight hundred and ten students from secondary schools in Murcia, Spain, participated in the study and were separated into groups. Mendez found that group one obtained significantly higher values in interpersonal, adaptability, and general mood variables and significantly lower values in stress management compared to group three. Group two obtained significantly higher values in adaptability and general mood variables compared to group three. Finally, group one obtained significantly lower values than groups two and three in cyberbullying, and group two obtained significantly lower levels than group three in cyberbullying.

Another study (Mendez, 2019) analyzed the extent to which some dimensions of emotional intelligence predict manifestations of bullying and cyberbullying in adolescents. Three hundred and nine students from secondary schools in Murcia, Spain, participated in the survey.

The survey consisted of two scales: the first scale consisted of the school violence questionnaire; it measured violence of teachers towards students, physical direct violence between students, physical indirect violence by students, verbal violence among students, verbal violence of students among teachers, social exclusions, disruptive behavior in the classroom, and violence through new information and communication technologies. The second scale consisted of the emotional quotient-youth questionnaire; it measured intrapersonal, interpersonal, stress management, adaptability, and general mood. Overall, Mendez found that for each increase in adaptability and in stress management, students were at a greater risk to perceive violence of teachers towards students. In addition, for each increase in adaptability and in stress management, students perceived more verbal violence among students.

Emotion Regulation

A 2020 study (Rey, 2020) examined the relationships among cyber victimization, maladaptive cognitive emotion regulation strategies, and somatic complaints among 1,024 European high school students. Rey found that cyber victimization predicted somatic symptoms. Emotion regulation strategies, such as self-blame and rumination, partially mediated the link between cyber victimization and somatic symptoms four months later.

Gul (2019) aimed to define the prevalence of cyberbullying and cyber victimization and examine relationships between problematic smartphone use, psychiatric symptoms, and emotion regulation difficulties in adolescents. In addition, Gul aimed to predict risk factors of being an e-victim and e-bully. Gul found that emotion regulation problems are stronger than the relationship between problematic smartphone use, the e-victimization scale, and the e-bullying-scale. Emotion regulation was not an independent predictor of being an e-victim or e-bully; based on these findings, Gul suggests that emotion regulation problems and psychiatric symptoms could be risk factors for problematic phone use and cyberbullying.

Optimism

Evans (2018) examined how cumulative experiences of victimization, perpetration, and bystander behavior impact both behavioral and mental health in adolescents and academic

achievement outcomes at the end of high school (N = 8,000). Evans found that cumulative bullying victimization was positively associated with aggression and internalizing symptoms but negatively associated with self-esteem and future optimism. In addition, cumulative bullying perpetration was positively associated with aggression but negatively associated with future optimism. Further, cumulative negative bystander behavior was positively associated with aggression and internalizing symptoms and negatively associated with academic achievement and future optimism. Finally, cumulative prosocial bystander behavior was positively associated with internalizing symptoms, academic achievement, self-esteem, and future optimism.

Self-Efficacy

To better understand adolescent's health-related quality of life, Haraldstad (2019) examined the relationships between self-efficacy, bullying, and health-related quality of life in Norwegian adolescents. Seven hundred and twenty-three students, ages 12-18, from 19 randomized schools participated in the study. After surveying the students, Haraldstad found that 13% reported being bullied; while there were no gender differences with this finding, Haraldstad found that more boys than girls reported that they had bullied others. Findings also showed that both being bullied and bullying others were associated with lower health-related quality of life. In addition, higher self-efficacy was associated with better health-related quality of life and contributed significantly to predicting variation in health-related quality of life.

Another study examined the effectiveness of an anti-bullying P.E.A.C.E. (Preparation, Education, Action, Coping, and Evaluation) program in students from Italian high schools (Guarini, 2020). Five hundred and fifty-one students participated in the study by completing a survey on bullying victimization, self-efficacy, and bystander behavior before and after the intervention. The students were divided into three groups (not involved students, occasional, and severe victims) based on their self-reported victimization. Findings showed that after the intervention, severe victims (victimized once/week or more often) showed a significant decrease in victimization and higher scores in self-efficacy. However, in the not involved students, there

was a significant increase in victimization. All groups reported that classmates were perceived as more likely to intervene when a bullying episode occurred. In contrast, the students' teachers were perceived as less likely to intervene by occasional and severe victims.

Social Support

A 2020 study (Xiong, 2020) examined the influence of academic achievement on bullying behavior and explored the effects of perceived social support and age cohort in Chinese adolescents. In this study, 3,227 middle and high school students were surveyed and asked to complete a self-assessment based on academic achievement, social support, bullying, and demographic variables. Xiong's findings revealed that the relationship between academic achievement and bullying behavior was moderated by the perceived social support of adolescents and their age cohort. More specifically, social support moderated the relationship between academic achievement and bullying behavior positively in the middle school group and negatively in the high school group.

Gutierrez (2020) analyzed how social support, affiliation, and social self-perception are associated with involvement in different school bullying roles. Findings indicate that participation in bullying affects perceived social support in school, family, and peers. More specifically, the results show a strong inverse relationship between bullying, victimization, and the perception of peer, family, and school support and affiliation. Further, bullying is associated with a low perception of support in school environments, and victimization is associated with lower parental, peer support, and affiliation.

Based on the preceding review of the literature, the following hypotheses are posited:

H1: Children and adolescents believe classmates are more likely than them to be bullied by peers (Optimistic bias).

H2: As experience with bullying victimization increases, optimistic bias decreases.

H3: As optimistic bias increases, resilience decreases.

Method

Procedures and Participants

Participants were middle school and high school students participating in school-based violence prevention education programs offered by a local domestic violence counseling and support agency in the mid-Atlantic United States ($N = 651$). Due to Covid-19 restrictions in the 2020-2021 school year, most sessions were conducted remotely with pre/post-tests collected online using Qualtrics. To increase return rates, surveys were collected in real time before and after planned sessions. Participants ranged in age from 11 to 18 ($X = 13.2$; $SD = 1.2$). Gender was evenly distributed: 52% identified as male; 47% identified as female; the remaining 1% identified as trans, non-binary, or other. Consistent with local demographics, most of the participants identifies as white Euro-Americans (79%), with 6% identifying as black/African-American, 5% identifying as Hispanic/Latin X, 5% identifying as Asian, and the remaining 5% identifying as mixed, international, or other. Students had the option to decline participation or skip individual items. The most frequently skipped item was race (11%). Study variables were completed by most students: 3% skipped the optimistic bias item; less than one percent skipped the resilience items.

Materials

Optimistic bias was measured using a standard instrument (Weinstein, 1989): “Compared to other students in my grade, my chances of being bullied by classmates are” (Much less than peers = -3; Much greater than peers = 3). Optimistic bias is indicated by a mean significantly less than zero. A mean of zero indicates realistic risk perception.

Resilience was measured using the Five-by-Five Resilience Scale (DeSimone et al., 2017). The scale includes 25 items using a five-point Likert scale (1 = very inaccurate; 5 = Very accurate). The scale yielded good internal consistency: $\alpha = .74$. Sample item for Adaptability: "I am open to change." Sample item for Emotion Regulation: "Keep my emotions under control." Sample item for Optimism: "See difficulties everywhere (R)." Sample item for Self-Efficacy: "Can tackle anything." Sample item for Social Support: "Feel isolated from other people (R)."

Experience with violence was measured using Adolescent gender-based Violence Scale (Penado-Abilleira & Rodicio-Garcia, 2018). The scale consists of 30 items measured on a 5-point Likert-type scale (0 = Never; 4 = Often). Half the items measured experience as a victim: "They have pushed or hit you." Half the items measured experience as a perpetrator: "You have made fun of something they said." The scale yielded very good internal consistency: $\alpha = .86$.

Participants also provided their age, gender, and race. There were no significant relationships or differences in study variables attributable to gender or age. There was not enough variance in race to merit testing.

Results

SPSS software was used for statistical analysis. T-tests, correlations, and linear regressions were used.

The first hypothesis predicted optimistic bias, that children and adolescents believe classmates are more likely than them to be bullied by peers. Recall that optimistic bias is indicated by a negative mean. Most of the students (76%) exhibited optimistic bias. A single-sample t-test was used to test the hypothesis. H1 was supported, ($M = -1.6$, $SD = 1.5$), $t(628) = -25.0$, $p < .000$.

The second hypothesis predicted optimistic bias would decrease as experience with bullying victimization increases. Victimization was a common experience, with 98% of the students reporting they experienced at least one form of bullying. The most frequent type of bullying reported was verbal abuse with 98% of students experiencing some level of verbal abuse and 28% reporting it happened often. Physical violence was the least frequent form of abuse reported. 93% of the students said they had been shoved or hit at school, but only 12% said it happened often. The results for perpetration of bullying/violence at school followed similar patterns. 94% of the students acknowledged engaging in at least one form of bullying behavior with verbal abuse being the most frequent (19% said they frequently engaged verbal bullying) and physical abuse the least (10% acknowledged frequent physical aggression). Table 1 shows the predicted inverse relationship between optimistic bias and experience as both victim and perpetrator emerged. Table 2 shows experience with victimization as the strongest predictor of optimistic bias. H2 was supported.

The third hypothesis predicted as optimistic bias increases, resilience decreases. Responses to the resilience scale ranged from 13 to 47 with only a few students falling at the top or bottom of the scale ($M = 28.3$, $SD = 5.9$). Table 1 shows the predicted inverse relationship between optimistic bias and resilience as well as two of the five resilience sub-scales: Adaptability and Optimism. Table 2 shows resilience as a relatively weak but significant predictor of optimistic bias. H3 was supported for the full scale and two of the five sub-scales.

Discussion

Our research was consistent with literature documenting optimistic bias and showing that experiences with bullying increases risk assessment of future bullying (i.e. Reduces OB) which tends to reduce the victim's sense of safety (Zacharia & Yablon, 2021; Nobel & Jardin, 2020;

Benbenishty & Astor, 2019). However, no literature exists which examines the relationship between optimistic bias, personal experience and resilience. The primary contribution of our work is the documentation of the inverse relationship between optimistic bias and resilience. Individuals who experienced bullying did tend to have lower OB, but experiences with bullying are never desirable as means to resolve OB especially given the inverse relationship between OB and resilience. Our work shows that prevention education initiatives and programming must address and resolve optimistic bias because of the central role that OB plays in both the avoidance of, and recuperation from, negative events.

Our research found that, for an individual with a high OB, the experience of something they believed was unlikely to happen to them not only removes their OB, but it also leaves them less prepared to recover from the event. Therefore, personal experience may be one of the easiest methods of dispelling OB, but it is not recommended for multiple reasons, one of which is that individuals with high OB also tend to have low resilience.

On the subject of bullying, our research found that middle-school and high-school aged youth exhibit OB and do not usually consider themselves at risk of becoming victims, even if there is behavior in family or peer groups that is clearly identifiable as bullying (e.g., name calling, physical abuse, harassment). Instead, because of their optimistic bias, students may dismiss these bullying behaviors as unintended or misinterpreted (“my friend didn’t mean to hurt my feelings, they were just messing around” or “my sibling was just trying to toughen me up by hitting me”). While examining the relationship between OB, bullying, and resilience, we proposed that youth who demonstrated higher levels of OB would also be less likely to display resilience in the face of bullying. The reasoning behind this view being that individuals who feel no need to be resilient will be less likely to spend time developing behaviors and mindsets that

make it easier to be resilient. Ultimately, our argument is that OB makes it more difficult to develop and display resilience because it prohibits youth from identifying a situation that could (and should) change or improve through their own actions.

A number of limitations should be considered before interpreting the results. While the work was conducted in the field, the study was based on a convenience sample of middle school and high school students from one mid-Atlantic state in the United States. Results may not be generalizable to children and adolescents from other states and other countries. Participating school districts would not grant access to children in elementary schools. Bullying starts young. Expanding the participant pool to younger children would broaden our understanding of risk perception and resilience.

Future research should expand on this work by engaging larger and/or more diverse populations, as well as testing techniques that reduce optimistic bias while also promoting resilience. Additionally, conducting these studies with even younger children would be helpful as the New York State Department of Health notes that bullying behaviors can be seen as early as preschool (although these do intensify in middle school). If bullying behavior is at work in preschool environments, then we can safely assume that children are observing it and making assessments about their own likelihood of encountering this behavior.

Lastly, schools should be providing prevention education that addresses bullying behaviors and mindsets while also building resilience. Whether or not a school accepts that its students have optimistic biases about bullying, a learning institution does its students a disservice if it allows for an environment to be created that makes it difficult to live, learn, and persevere. Recognition of a bullying problem should not be a prerequisite for actions that help improve the

lives of students. Even if, by some miracle, bullying is not a problem at a given school, prevention education that develops resilience is always beneficial.

References

- Aldridge, J. M., McChesney, K., Afari, E. (2019). Associations between school climate and student life satisfaction: resilience and bullying as mediating factors. *Learning Environments Research*, 23, 129-150. <https://doi.org/10.1007/s10984-019-09296-9>
- American Psychological Association. (2021). *Dictionary of psychology*.
<https://dictionary.apa.org>
- Benbenishty, R., & Astor, R. A. (2019). Conceptual foundations and ecological influences of school violence, bullying, and safety. In M. J. Mayer & S. R. Jimerson (Eds.), *School safety and violence prevention: Science, practice, policy* (pp. 19–44). American Psychological Association. <https://doi.org/10.1037/0000106-002>.
- Centers for Disease Control and Prevention. (2020). Preventing bullying. In *Violence Prevention*.
<https://www.cdc.gov/violenceprevention/youthviolence/bullyingresearch/fastfact.html>
- Chapin, J. (1999). Third-person perception and sexual risk-taking among minority 'at-risk' youth. *Mass Communication and Society*, 2 (3/4), 163-173.
- Chapin, J. (2016). Adolescents and Cyber Bullying: The Precaution Adoption Process Model. *Education and Information Technologies: The Official Journal of the IFIP Technical Committee on Education*, 21(4), 719. <https://doi-org.authenticate.library.duq.edu/10.1007/s10639-014-9349-1>
- Chapin, J., & Coleman, G. (2006). Perceiving the Enemy within: Optimistic Bias and School Violence. *Journal of School Violence*, 5(1), 29–42.

- Chapin, J. R., & Pierce, M. (2012). Optimistic bias, sexual assault, and fear. *Journal of General Psychology, 139*(1), 19–28. <https://doi-org.authenticate.library.duq.edu/10.1080/00221309.2011.635724>
- DeSimone, J., Harms, P., Vanhove, A., & Herian, M. (2017). Development and validation of the Five-by-Five Resilience Scale. *Assessment, 24* (6), 778-797. <https://doi:10.1177/1073191115625803>
- Evans, C. B. R., Smokowski, P. R., Rose, R. A., Mercado, M. C., Marshall K. J. (2018). Cumulative bullying experiences, adolescent behavioral and mental health, and academic achievement: An integrative model of perpetration, victimization, and bystander behavior. *Journal of Child and Family Studies, 28*, 2415-2428. <https://doi.org/10.1007/s10826-018-1078-4>
- Folayan M. O., Oginni, O., Arowolo, O., Tantawi M. E. (2020). Internal consistency and correlation of the adverse childhood experiences, bully victimization, self-esteem, resilience, and social support scales in Nigerian children. *BMC Research Notes, 13*, 33. <https://doi.org/10.1186/s13104-020-05174-3>
- Greco, G. (2019). Karate as anti-bullying strategy by improvement resilience and self-efficacy in school-age youth. *Journal of Physical Education and Sport, 19*, 1863-1870. <https://doi.org/10.7752/jpes.2019.s5276>
- Greco, G. (2021). Multilateral teaching in physical education improves resilience and self-efficacy in adolescents and could help reduce bullying behaviors. *Sciendo, 90*, 1-9. <https://doi.org/10.2478/pcssr-2021-0008>
- Guarini, A. Menabo, L., Menin, D., Mameli, C., Skrzpiec, G. (2020). The P.E.A.C.E. pack program in Italian high schools: An intervention for victims of bullying. *Environmental Research and Public Health, 17*, 5162. <https://doi.org/10.3390/ijerph17145162>
- Gul, H., Firat, S. Sertcelik, M., Gul, A. Gurel, Y., Kilic, B. G. (2019). Cyberbullying among a clinical adolescent sample in Turkey: Effects of problematic smartphone use, psychiatric

- symptoms, and emotion regulation difficulties. *Taylor & Francis Online*. 4, 547-557. <https://doi.org/10.1080/24750573.2018.1472923>
- Gutierrez, R. B., Herraiz, E. D. (2020). Social support and self-perception in bullying roles. *Universidad De Murcia*. 36, 92-101. <https://doi.org/10.6018/analesps.301581>
- Haraldstad, K., Kvarme, L. G., Christophersen, K., Helseth, S. (2019). Associations between self-efficacy, bullying and health-related quality of life in a school sample of adolescents: a cross-sectional study. *BMC Public Health*. 19, 757. <https://doi.org/10.1186/s12889-019-7115-4>
- Helweg-Larsen, M. (1999). (The Lack of) Optimistic Biases in Response to the 1994 Northridge Earthquake: The Role of Personal Experience. *Basic & Applied Social Psychology*, 21(2), 119–129. <https://doi-org.authenticat.library.duq.edu/10.1207/15324839951036461>
- Jun, J., & Nan, X. (2018). Comparative risk assessment and cessation information seeking among smokeless tobacco users. *Addictive Behaviors*, 80, 14–21. <https://doi-org.authenticat.library.duq.edu/10.1016/j.addbeh.2017.12.031>
- Kabadayi, F., Sari, S. V. (2018). What is the role of resilience in predicting cyber bullying perpetrators and their victims? *Journal of Psychologists and Counsellors in Schools*. 102-117. <https://doi.org/10.1017/jgc.2017.20>
- Masiero, M., Riva, S., Oliveri, S., Fioretti, C., & Pravettoni, G. (2018). Optimistic bias in young adults for cancer, cardiovascular and respiratory diseases: A pilot study on smokers and drinkers. *Journal of Health Psychology*, 23(5), 645–656. <https://doi-org.authenticat.library.duq.edu/10.1177/1359105316667796>
- Mendez, I., Jorquera, A. B., Ruiz-Esteban, C., Martinez-Ramon, J. P., Fernandez-Sogorb, A. (2019). Emotional intelligence, bullying, and cyberbullying in adolescents. *Environmental Research and Public Health*. 16, 4837. <https://doi.org/10.3390/ijerph16234837>

- Mendez, I., Jorquera, A. B., Esteban, C. R., Garcia-Fernandez, J. M. (2020). Profiles of mobile phone use, cyberbullying, and emotional intelligence in adolescents. *Sustainability*, 12, 9404. <https://doi.org/10.3390/su12229404>
- Monzani, D., Gorini, A., Mazzoni, D., & Pravettoni, G. (2021). Brief report - “Every little thing gonna be all right” (at least for me): Dispositional optimists display higher optimistic bias for infection during the Italian COVID-19 outbreak. *Personality and Individual Differences*, 168. <https://doi-org.authenticate.library.duq.edu/10.1016/j.paid.2020.110388>
- Park, T., Ju, I., Ohs, J. E., & Hinsley, A. (2021). Optimistic bias and preventive behavioral engagement in the context of COVID-19. *Research in Social and Administrative Pharmacy*, 17(1), 1859–1866. <https://doi-org.authenticate.library.duq.edu/10.1016/j.sapharm.2020.06.004>
- Penado-Abilleira, M. & Rodicio-Garcia, M. (2018). Adolescent gender-based violence scale. Retrieved from *PsycTESTS*, <http://doi.org/10.1037/t67939-000>
- Perloff, L. S. (1983). Perceptions of vulnerability to victimization, *Journal of Social Issues*, 39, 41-61.
- Rey, L., Neto, F., Extremera, N., (2020). Cyberbullying victimization and somatic complaints: A prospective examination of cognitive emotion regulation strategies as mediators. *International Journals of Clinical and Health Psychology*. 20, 135-139. <https://doi.org/10.1016/j.ijchp.2020.03.003>
- Van der Velde, F. W., Hooykaas, C, & Van der Pligt, J. (1992). Risk perception and behavior: Pessimism, realism, and optimism about AIDS-related health behavior. *Psychology and Health*, 6, 23-38.
- Weinstein, N. D. (1980). Unrealistic optimism about future life events. *Journal of Personality and Social Psychology*, 39, 806-820.

- Weinstein, N. D. (1987). Unrealistic optimism about susceptibility to health problems: Conclusions from a community-wide sample. *Journal of Behavioral Medicine*, 10, 481-500.
- Weinstein, N. (1989). Perceptions of personal susceptibility to harm. In V. Mays, G. Albee & F. Schneider (Eds.), *Psychological approaches to the primary prevention of acquired immune deficiency syndrome* (142-167). Newbury Park, CA: Sage.
- Williams, S., Schneider, M., Wornell, C., & Langhinrichsen-Rohling, J. (2018). Student's perceptions of school safety: It is not just about being bullied. *The Journal of School Nursing*, 34(4), 319–330. <https://doi.org/10.1177/2F1059840518761792>.
- Xiong, Q., Shi, S., Chen, J., Hu, Y., Zheng, X., Li, C., Yu, Q. (2020). Examining the link between academic achievement and adolescent bullying: A moderated moderating model. *Dovepress*. 13, 919-928. <https://doi.org/10.2147/PRBM.S278453>
- Zacharia, M. G., & Yablon, Y. B. (2021). School bullying and students' sense of safety in school: the moderating role of school climate. *European Journal of Psychology of Education: A Journal of Education and Development*, 1. <https://doi-org.authenticate.library.duq.edu/10.1007/s10212-021-00567-9>

Tables

Table 1*Zero-Order Correlations among Variables Related to Optimistic Bias*

	2	3	4	5	6	7	8	9
Optimistic Bias	-.19**	-.11**	-.12**	-.09*	-.08*	.04	.03	.03
Bullying (Victim)	—	.84**	.13**	.13**	.11**	.02	.17**	.05
Bullying (Perpetrator)		—	.11**	.12**	.08*	.07	.12**	.03
Adaptability			—	.64**	.25**	.33**	.25**	.36**
Resilience (full scale)				—	.58**	.77**	.46**	.74**
Optimism					—	.25**	.29**	.22**
Social Support						—	.08	.57**
Emotion Regulation							—	.08
Self-Efficacy								—

Note. **p< .01; *p< .05

Note. Optimistic bias is indicated by a negative mean, The signs in row 1 have been reversed for ease of interpretation.

Table 2*Summary of Linear Regression Analysis for Variables Predicting Optimistic Bias*

Adj. $r^2 = .24$ N = 596			
Predictor	B	SE B	β
Bullying (victim)	.17	.04	4.7***
Bullying (perpetrator)	-.11	.04	-2.8**
Adaptability	.10	.06	2.0*
Resilience (full scale)	.10	.02	1.8*
Optimism	.10	.05	1.7*

Note. *p<.05, ***p<.001