

Differential Effects of Bullying and Cyberbullying in Adolescent PTSD

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Abstract. School bullying and cyberbullying are common problems among adolescents, and studies show that both types of bullying are positively associated with symptoms of posttraumatic stress disorder (PTSD). The focus of this review is to compare the differences in the impact on PTSD symptoms between school bullying and cyberbullying among adolescents. This paper shows the distribution and severity of PTSD among the young participants. Participants in bullying have different roles, such as only victims, only perpetrators or witnesses. Poly-role participants are also found by other researchers. There is overlap in roles, so this study also includes this overlap, and the comparison of PTSD symptoms is mainly from the perspective of only victims and only perpetrators. Some factors for the high rates of PTSD and bullying are also mentioned in this review. For example, agreement with the aggressors and other traumas that have not been experienced. Given the significant symptoms of PTSD among adolescent participants and the negative impact of PTSD and bullying, it is important to implement practical ways to prevent bullying. In order to improve the juvenile protection, it is also necessary to identify the population most affected by bullying and the group of adolescents most likely to be targets of bullying from the overlaps.

Keywords: School bullying; cyberbullying; posttraumatic stress disorder; adolescents.

1. Introduction

Post-traumatic stress disorder (PTSD) is a mental health problem caused by a horrific event, either witnessed or experienced. PTSD can develop when people live through or witness an event in which they believe there is a threat to physical integrity and safety or life and experience terror, fear or helplessness. Flashbacks, severe anxiety, uncontrollable thoughts about the event and bad dreams are common symptoms of PTSD. Post-traumatic stress disorder is also a common problem among teenagers. Teenagers have a higher risk of experiencing trauma than other generations [1]. The overall rate of all types of PTSD among adolescents was 15.9% [2]. It is also associated with the type of exposure [1, 2]. The severity of PTSD in adolescents varies according to the type of trauma. Sexual trauma, war trauma and bullying trauma are common types of traumas. Sexual and combat trauma have the strongest correlation with the severity of PTSD. For adolescents, PTSD has a negative impact in many areas. For example, there is evidence that the severity of PTSD is inversely related to academic performance [3]. In order to improve the quality of education and the state of mental health, it is necessary to find available ways to reduce the manifestation of symptoms of PTSD by preventing the factors that can cause PTSD.

A strong positive association has been found between PTSD in adolescents and bullying [4]. Bullying is defined as aggressive behaviors, not only physical but also verbal, by someone who repeatedly and intentionally causes harm or discomfort to others. Among the different types of bullying, school bullying is a traditional problem in society. With the popularization of the internet and social media in the last 2 decades, cyberbullying has emerged. The rate of cyberbullying among adolescents varies widely between regions, studies and countries, ranging from 10% to 40% [5]. Both types of bullying have a negative impact on the mental health of both victims and perpetrators [5]. The focus of this review is to identify the differences between the impact of school bullying and the impact of cyberbullying on adolescent PTSD. For both school bullying and cyberbullying, the impact on participants depends on the character they 'play' in the event [5]. There may be some overlap between

school bullying and cyberbullying [6]. Although there is evidence that many people who use electronic forms to bully others are also traditional bullies, the author focuses on PTSD in school bullying and cyberbullying respectively. The character of the perpetrators may also not be uniform. In order to control for random variables, this paper focuses on people who are only victims and people who are only perpetrators.

2. The Situation of the Participants in School Bullying and Cyberbullying

2.1. The Influence of School Bullying of PTSD Symptoms on the Participants

School bullying is harmful, aggressive behaviour between school-aged young people that involves a real or perceived power imbalance. School bullying is a widespread problem among adolescents. Other work shows that the rate of peer maltreatment is between 20% and 45%, and bullying that occurs weekly or more can reach 32% [7]. Bullying is repeated over a long period of time, so bullying at school will affect participants in many different ways. For example, victims may be afraid to go to school or isolated in class. Bullying obviously affects the victims. Fernández-Aldana et al. research also shows that there is a high rate of PTSD among witnesses and aggressors. It is therefore necessary to find the most vulnerable group and the way to prevent bullying and mental health problems after trauma, such as PTSD. However, there are few papers on witnesses, so this review will mainly focus on the PTSD situation of victims and perpetrators of bullying.

There is evidence that there is a positive association between school bullying and symptom levels of PTSD in victims. The proportion of bullied adolescents with sufficient clinical evidence of PTSD ranges from 46.2% to 61.5% [8]. The result of Ossa et al. research shows that severely bullied adolescents show common performance on symptoms of PTSD with clinical patients. Thus, severe victims of school bullying show a strong correlation with clinical symptoms of PTSD. Among the different types of bullying, verbal abuse was reported most often, even more than social bullying and physical aggression. In bullying incidents, a high rate of PTSD symptoms occurs in witnesses and victims [9]. The research by Fernández-Aldana et al. also supports the idea that there is some overlap between different types of bullying and the participants. Participants who were bullied had a higher risk of symptoms of stress, anxiety, PTSD and depression. The frequency of reporting the high proportion of PTSD symptoms among witnesses is similar to the frequency among victims [9]. There are some factors that vary the results of this type of research, such as gender. However, there has been no consistent finding on the gender differences between PTSD symptoms and school bullying, although papers show that females have a higher rate of PTSD within trauma [10].

Although most papers focus on the influence of bullying on the victim, some research shows that perpetrators have a higher rate of developing PTSD symptoms than non-participants. In Fernández-Aldana et al. research, some of the witnesses and victims endorsed the behaviors of the perpetrators. This phenomenon is different from what people imagine. The author also hypothesizes that this unconscious admiration may be one of the factors behind the high rate of bullying in schools. This high rate of bullying at school may make PTSD a common problem among adolescents. Trauma is the main factor that causes PTSD to develop. Different types of aggressive behavior will cause trauma in the aggressors [11]. There were some researchers who imagined whether the correct progression is from aggression to PTSD or in the alternative path. Gumpel's study shows evidence that physical and other types of bullying to PTSD is the correct path. So, the theory that aggressors first develop PTSD and then become perpetrators of bullying is wrong.

2.2. The Influence of Cyberbullying of PTSD Symptoms on the Participants

Cyberbullying is behavior that embarrasses, harms, annoys or targets another person using technology such as the internet or social media. It includes online aggression, unfriendly messages, name-calling, harassing images and disrespectful nicknames. This type of bullying is carried out in a fictional way, unlike school bullying, which happens in real life. Therefore, the impact of cyberbullying on participants' PTSD may be different from that of school bullying. Cyberbullying can happen at home,

at school, during the day or at night. Because cyberbullying can spread across time and space, and because it is fast, it is much harder to prevent young people from being cyberbullied. Although cyberbullying can spread easily, school bullying is traditional and has a longer history. Therefore, school bullying seems to be more common among adolescents. In the studies by Baldry et al, the rates of cyber-victims and cyberbullies in a school are 26.3% and 24% respectively. This rate is lower than the rates of school bullying in the same study, 59.5% and 60% for victims and bullies respectively [12]. Research in Italy supports that cyberbullying is strongly associated with the development of PTSD in both victims and perpetrators [13]. The severity of PTSD symptoms also correlates with cyberbullying. In a study of adolescents in the United Kingdom, there was evidence that the severity of PTSD was higher among participants in cyberbullying than among non-participants [5].

Among all participants in cyberbullying, pure victims are the most affected by bullying. Higher levels of PTSD symptoms have been found among cyber-victims [13]. This study also shows that among different types of participants, only cyber-victims were found to have more significant symptoms of PTSD than only cyberbullies. For young cyber-victims, their real identity information is not well protected and it is difficult for them to get help from society. This is because it is hard to find cyberbullying perpetrators, and bullies can easily hide their real identities online. As a result, cyberbullying is more uncontrollable than other types of bullying, and cyber-victims suffer trauma at greater risk. In Ranney et al. research, both cyber and physical aggression are associated with current PTSD, although the correlation between cyberbullying experience and physical violence is not significant [14]. This study also shows that PTSD has a long-lasting impact on adolescents. Among adolescents who present to emergency departments for any reason, nearly 25% of these adolescent patients report that their current symptoms are consistent with their pre-existing PTSD. Finding stable ways to prevent the factors that lead to PTSD is therefore necessary for society and has practical implications for improving education.

Cyberbullies are not a tiny group of people, as cyberbullying is a widespread social problem. In a study conducted in an Italian school, the rate of students who used the Internet to bully others at least once or twice in the last 6 months was 23.8% [12]. It is therefore important to focus on the physical situation of these groups of young people. Young cyberbullies are in the opposite situation to young cyber-victims. They do not need to spend a lot of time or even money to bully others online. Thus, the cost of their crime is almost free, which could be one of the factors behind the high rate of cyberbullying among teenagers. However, similar to perpetrators of school bullying, cyberbullies also have higher rates of PTSD [13]. There is evidence of overlap between pure cyberbullying and pure school bullying [13]. Among the different types of cyberbullying participants, gender differences in PTSD symptoms were common. However, the study by Baldry et al. shows that gender is not a factor that can influence PTSD symptoms in cyberbullies only [13]. Compared to the situation of school bullying, where some victims and witnesses of school bullying endorse the behaviour of the perpetrators, the author hypothesizes that this kind of endorsement will also be found among participants in cyberbullying. That is, cyberbullies might be affected by this kind of unconscious approval.

3. Comparison between PTSD Symptoms in School bullying and Cyberbullying

Among the adolescents, the participants have different roles in the bullying event, only victims, only bullies, bully/victim and witnesses. There is sufficient evidence of overlap between the roles of participants in school bullying and cyberbullying. Several studies found significant overlap between only school bullying victims/bullies and only cyberbullying victims/bullies [5, 12, 13]. In a study of British adolescents, half of the cyberbullying participants were also involved in school bullying or other traditional bullying [9]. However, this study also showed that the role overlap was not the same for different groups of participants. The proportion of cyberbullies who did not participate in traditional bullying is 38%, but the proportion of cyber-victims is only 10.4%. The role overlap is not always the same or different between the different types of participants. Gender differences have also been found in role overlap, with role overlap being more significant among boys [12]. Therefore, it

is important for researchers to find and collect more details and to use concrete events to analyse the overlaps. This is necessary in order to find the most affected group of participants (the victims of poly-bullying) and to provide these groups of young people with protective measures in time.

Cyberbullying and school bullying have overlapping effects on participants. For example, significant depression and emotional anxiety were found in all bullying participants, and both school bullies and cyberbullies have significant symptoms of PTSD [5, 9]. There are also similarities and differences in the impact of school bullying and cyberbullying on PTSD. An Italian study made a comparison in this area. In the case of school bullying, both victims and perpetrators reported significant symptoms of PTSD, but pure bullies had lower levels of PTSD. In cyberbullying, however, only victims reported higher levels of PTSD symptoms [13]. The high rate of PTSD symptoms is found among both witnesses and targets of bullying. Victims of polybullying were also reported. In contrast, the high level of PTSD symptoms among perpetrators was not as significant as among other participants [9]. Compared to the distribution of PTSD symptoms among the participants, there is little work on the differences in severity and outcome of PTSD caused by school bullying and cyberbullying. Therefore, it is also necessary for researchers to find the difference in PTSD symptoms between these two types of bullying. The effects of school bullying and cyberbullying among teenagers also have some similarities, such as a drop in school grades, peer isolation, and so on. Finding practical ways to prevent bullying among adolescents, both on campus and online, therefore makes sense for society. It also has realistic implications for improving education and protecting teenagers.

There has been little research on cyberbullying witnesses. However, a Colombian study shows that witnesses of school bullying have higher levels of PTSD symptoms and greater symptoms of depression and anxiety than non-participants [9]. Although there have been many types of research that have included the situation of witnesses to bullying (or the 'bystander' group), there is insufficient evidence to show that cyberbullying witnesses also have these symptoms. It is therefore difficult to compare the situation of witnesses of cyberbullying and school bullying. The author has three hypotheses about cyberbullying witnesses: (1) Cyberbullying witnesses may also have higher levels of symptoms of PTSD or other mental disorders. (2) Cyberbullying witnesses are likely to take on other roles, such as victims or bullies. This may be one of the reasons why they developed PTSD and other disorders. (3) The role that witnesses take on may depend on their own experiences. For example, some studies show that parental attachment and childhood trauma influence the development of PTSD. Therefore, these factors may also influence role replacement. The population of witnesses is huge, especially in cyberbullying, so it is difficult to collect and analyse data on witnesses. As a result, it is also difficult to find the differences or special effects among the witnesses. Hope the hypothesis in this paper can provide some ideas and research directions for further researches.

4. Conclusion

This study is mainly concerned with the similarities and differences in the symptoms of PTSD caused by school bullying and cyberbullying. There are many different roles in bullying events, such as only victims, only bullies, multiple victims, witnesses, or both perpetrators and victims. The main topics are the role differences of the impact of bullying and the comparison between influence of school bullying and cyberbullying. The distribution and severity of PTSD in these participants are also mentioned in this study. There is limited work on other roles, and in order to control for the variables of influence research, the author only analyses some specific groups of participants. The populations that this paper focuses on are the pure victims and the pure perpetrators of bullying. The research of other researchers shows that both victims and bullies develop PTSD, and the symptoms of PTSD are more significant than other non-participants. However, PTSD symptoms are more prevalent among victims of both school bullying and cyberbullying. There was insufficient evidence to detect differences in the severity of PTSD symptoms. This paper also finds overlaps between roles in school bullying and cyberbullying. Participants in cyberbullying are more likely to play the same role in school bullying. And this phenomenon is more pronounced among boys. As far as the overlapping of roles in bullying is concerned, it is important to focus on the victims of both school bullying and

cyberbullying in order to avoid secondary damage to these young people. For other young participants, although there was limited work on witnesses, this review summarizes some data on witnesses to school bullying but limited information on witnesses to cyberbullying. The author has made three hypotheses about witnesses and hopes to contribute to further research in this area. It is necessary for people to find practical ways to prevent bullying and the development of PTSD. The comparison and data analysis in this paper are meaningful for society to improve the quality of education and pay more attention to the protection of teenagers.

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