High School Cyberbullying and Adolescents’ Depression in China
Yihan Zhang\textsuperscript{1, *}, †, Zixi Zhang\textsuperscript{2, †}

\textsuperscript{1} McMaster University
\textsuperscript{2} Shandong Experimental High school
\textsuperscript{*} Corresponding author. Email: zhany558@mcmaster.ca
\textsuperscript{†} Those authors contributed equally.

ABSTRACT
This paper focused on cyberbullying in a Chinese context and its relationship with Chinese adolescents’ depression, self-harm, and suicidal ideation based on past literature. Mainly, five articles related to this topic were analyzed respectively to give a comprehensive discussion. The literature suggested that cyberbullying is prevalent among adolescents in diverse Chinese societies and cyberbullying is positively correlated with several negative mental states for Chinese adolescents. However, none of the research can draw a causal conclusion, indicating more longitudinal tracking designs as a future direction. Furthermore, therapy and advice on preventing cyberbullying and depression are suggested based on conclusions drawn. Research in China should further investigate cyberbullying from the social-ecological perspectives and explore more concerning the prevention tactic and potential intervention about cyberbullying.

Keywords: Cyberbullying, Adolescent, Depression, Suicide, Self-harm

1. INTRODUCTION

From the developmental perspective, more understanding about cyberbullying among adolescents is necessary and meaningful. On one hand, because the self-concept of adolescents changes profoundly, they are more concerned about how other people evaluate them [1]. Thus, cyberbullying victimization can pose severe threats to adolescents’ mental health. On the other hand, adolescents are at a period of rebellion and aggression [1], resulting in a higher likelihood of adolescents being involved in cyberbullying perpetration, which can cause guilt and anxiety.

According to the ecological system theory [2], there are also other factors relevant to cyberbullying, including individual factors and environmental factors at diverse levels. For example, factors including one’s personality, which is at the individual level, one’s relationship with classmates and parents, which is at the micro-level, one’s school climate, which is at the macro level, the policies or atmosphere in the online community, which is at the exo-level, and the culture, which is at the macro level, are interacting with each other and affect the consequences of cyberbullying.

As said by Jung and Moro [3], mass media provides information to individuals at three levels: macro, meso, and micro. Micro communication often happens with people that one is familiar with, whose examples include Signal, WhatsApp, or WeChat which is more commonly used among Chinese people. Macro-level communication, Netflix, or online broadcasting as examples, involves a higher degree of anonymity. Meso-level activities take place in online groupings (e.g., WeChat groups) or social media (e.g., Facebook, Weibo), which involve both familiar and anonymous interaction.
This review paper aims to find out whether there is a positive correlation or any relationship between cyberbullying engagement and several negative mental states of Chinese adolescents’ (e.g., depression, suicidal ideation). Furthermore, other factors that are relevant to cyberbullying among Chinese adolescents will be explored by reviewing and integrating previous literature. Five main articles, which this paper will base on, were selected from a total of twenty recent studies operated during 2019-2020 about cyberbullying in China. By using the conclusion drawn based on previous research, therapies and advice on preventing cyberbullying and depression are suggested.

2. LITERATURE REVIEW

2.1 Current Background of Cyberbullying and Depression

2.1.1. Cyberbullying

Cyberbullying is a kind of bullying that can take place over digital devices, i.e., computers or phones, which can occur through text, social media, or share content. To be more specific, cyberbullying includes posting, sending, and sharing negative, harmful, insulting, or even mean content about someone’s personal or private information, which may result in humiliations and embarrassment of individuals [4].

Cyberbullying engagement primarily consists of being bullied by others, which is called cyberbullying victimization, and bullying others, which is known as cyberbullying perpetration. The most commonly used method to assess cyberbullying engagement in China is the Chinese version of Cyberbullying Inventory, which is composed of cyberbullying victimization subscale and cyberbullying perpetration subscale [5].

2.1.2 Major Depressive Disorder

With the rapid development of information technology, Internet use is incredibly increasing among modern people, which brings people benefits and convenience. However, cyberbullying is also becoming more common. According to Canada Mental Health Commission, one in three adolescents were bullied [6]. Over 40% of adolescents have experienced or are experiencing cyberbullying [7]. Cyberbullying victims are two times more likely to attempt self-harm or even commit suicide [8]. A study operated by CBC news analyzed 41 cases of adolescents who committed suicide from 2003 to 2012, 78% of them were bullied both at school and online [9].

In China, cyberbullying is also common in adolescents, and it influences the life of Chinese adolescents. To deepen the insights about cyberbullying in China, this paper will analyze previous studies on cyberbullying in a Chinese context and its relationship with Chinese adolescents’ depression, self-harm, and suicidal ideation.

2.2 Causes

2.2.1. Cyberbullying

Rates for the perpetration of cyberbullying in three different societies in China were 20.4% for HK, 7.7% for CN, and 20.6% for TW, as for victimization, the rates were 33.0%, 23.8%, and 31.7%. The data collected showed that the prevalence of cyberbullying varies in these Chinese societies. Behavioral ranking orders across these societies were more different than similar, which indicates that cyberbullying behavioral patterns had more disaccords than accords [10].

2.2.2. Social Anxiety and Neuroticism

Cyberbullying can have a direct impact on depression caused by bullies, but it can also have an indirect impact on their depression rate through mediating variables like social anxiety. The emotional reaction of social avoidance, intense anxiety, uneasiness, or dread in one or more interpersonal settings is referred to as social anxiety [11].

Cyberbullying has a strong positive significant impact on depression, with social anxiety functioning as a mediator and neuroticism functioning as a moderator. The positive effect on depression and the relationship between depression and social anxiety were both moderated by neuroticism. College students who have lower levels of neuroticism are more easily impacted by cyberbullying perpetration [12].

2.2.3. Psychological Security

Psychological security is defined as a sense of safety and belonging, as well as a sense of control over one's social surroundings and confidence in one's ability to be fearless. It is the foundation of individual well-being and mental health as one of the most fundamental psychological requirements. People who lack psychological security may feel rejected and alienated, and they may see the outside world and other people as frightening, untrustworthy, and uncontrolled. These negative sentiments and views can lead to a pessimistic outlook on the future and life, as well as maladaptive results including problem behaviors (e.g., Internet addiction), anxiety, and poor academic performance [13].

Social contextual variables have a direct impact on psychological security. Numerous researches have shown that poor interpersonal settings and interactions lead to negative views about the world (e.g., the world is unpredictable and unmanageable) and about oneself.
(e.g., they are isolated), compromising psychological stability. Bullying victimization was found to be adversely linked with psychological security in relevant empirical research, and teenagers who were bullied by peers tended to report lower degrees of psychological insecurity. Victimization by cyberbullying is also unpleasant and can have negative effects. Teenagers who are bullied online often feel hopeless in terms of protecting themselves, and even hopeless in terms of the future and the surroundings. As a result, cyberbullying victimization may have a detrimental impact on psychological well-being [13].

2.3 Impacts

Depression (major depressive disorder) is a widespread and significant mental condition that has a harm on how you feel, think, and behave. Fortunately, it is a treatable mental illness. Major depressive disorder can causes unhappiness, loss of interest in previous activities that were interested in. It may cause a variety of mental and physical issues, as well as a reduction in your capacity at study, at work, and at home [14].

Cyberbullying is a major societal problem that may have a significant negative impact on people's physical and mental health. Cyberbully victims, including elementary and middle school children as well as college students, face a slew of negative effects, including adjustment issues, academic failure, anxiety, despair, Internet addiction, drug abuse, and suicide thoughts [12]. Cyberbullying may lead to a variety of emotional and behavioral issues, including loneliness, despair, and poor self-esteem, all of which serve to reinforce the relationship between cyberbullying and depression, as low self-esteem, loneliness, and hopelessness are all risk factors for depression [12].

In a self-reported study, compared to victims who reported one form of bullying, victims of both conventional and cyberbullying have the highest risk of attempting self-harm, suicidal ideation plus self-harm, and commit suicide. Victims of cyberbullying only have the second-highest risk of suicidal ideation, attempting self-harm, and commit suicide [15].

2.4. Therapies

2.4.1. Medication – Fluoxetine, Sertraline, Paroxetine

Fluoxetine is an antidepressant that works by blocking serotonin reuptake, which is called selective serotonin reuptake inhibitor (SSRI). Fluoxetine helps patients with depression, panic, anxiety, and obsessive-compulsive symptoms by inhibiting the absorption of serotonin by nerve cells (neurons) [16]. Sertraline is also in the class of SSRI which is used to treat depression. It works by boosting serotonin levels in the brain, which is a natural chemical that helps mental equilibrium [17]. Another commonly used SSRI is called paroxetine, it can be used to treat OCD, anxiety disorders PTSD, panic attacks, and depression. It works by assisting the restoration of serotonin equilibrium in the brain [18].

2.4.2. Evidence-Based Treatment

2.4.2.1. Cognitive Behavioral Therapy (CBT)

CBT is a type of psychological treatment that has been proved to be useful for a variety of issues, including anxiety disorders, major depressive disorders, eating disorders, alcohol and drug abuse, marital issues, and serious mental disease. Many research studies proved that CBT could lead to a significant improvement in daily functioning at school, work, and home. CBT is proved to be as useful as, or even more effective than other kinds of therapies and medications [19].

2.4.2.2. Interpersonal Therapy (IPT)

IPT is a type of short-term psychotherapy that focuses on improving interpersonal function to relieve mental illness symptoms. It can link current issues to childhood or developmental problems. The idea of IPT is that psychological issues can be understood as a relationship with current issues and everyday relationships with others. Events that occur in the context of interpersonal interactions do not lead to depression. However, depression happens in the context of interpersonal interactions and has an impact on the roles that people play in those relationships. Through treating interpersonal issues, interpersonal therapy for depression focuses on how symptoms are connected to a person's connections, particularly family and peers [20].

2.4.2.3. Psychodynamic Therapy

Psychodynamic therapy is the psychiatric interpretation of emotional and mental processes. It is founded in traditional psychoanalysis and is based on object relations, ego psychology, and self-psychology. It was created as a quicker and less time-consuming alternative to psychoanalysis. The goal of psychodynamic therapy is to treat the psychological processes' basis and development. It aims to alleviate symptoms and enhance people's lives in this way [21].

Psychodynamic therapy revolves around the therapeutic relationship. It might show how a person interacts with his or her friends and family. In addition, transference in therapy can reveal how a person's early connections have influenced them now. The act of transferring one's sentiments for a parent, for example, to a therapist is known as transference. This kind of close examination of interpersonal interactions can treat can cure people in comprehending their roles in
different relationship patterns. It can provide them the ability to change the dynamic [21].

2.5 Prevent Cyberbullying

The identification and intervention of cyberbullying and victimization is still a challenge for researchers, parents, and educators. But other than paying attention to the perhaps victims, there are other measures that the educators can do. Adolescents are also encouraged to protect themselves.

2.5.1. Raise Awareness.

More research about cyberbullying victimization and depression should be done to raise awareness in researchers and schools to make sure the awareness of the negative impact of cyberbullying has been raised. Besides, programs about preventing cyberbullying also need to include understanding the significance of promoting subjective well-being for its contribution to a quality life [22].

2.5.2. Report Cyberbullying

When facing cyberbullying, it is encouraged that adolescents should report the situation to the adults that they trust (e.g., parents, familiar teachers, and school counselors) to ask for help to avoid more harmful effects.

It is worth mentioning that programs teaching children to be aware of the importance of well-being should be set up to improve their resilience to cyberbullying and to provide a buffer for the victims. Furthermore, the intervention with perpetrators is specifically necessary for them to realize the consequences and negative influences made on the victims [22].

2.5.3. Protect Individual Privacy

Self-protection while using the internet is also important to prevent cyberbullying. First, check privacy settings. Most teenagers leave social media accounts on “public” to share their personal life or to be popular among classmates, but it also gave access to the perpetrators to your privacy. Therefore, teenagers are encouraged to use privacy settings wisely. Secondly, be careful with the content of posting and avoid taking compromising photos. What you post on the internet is permanent and public which people with malicious intentions can use to assault and accuse you.

2.6. Prevent Depression

2.6.1. Self-adjustments

For the adolescents who had gone through cyberbullying before or still suffered from it, there is one thing that had to be remembered: Cyberbullying is never the victims’ fault.

Improve self-esteem is an important part to prevent depression and other negative emotions for both victims of cyberbullying and usual adolescents experiencing puberty. Interventions and prevention strategies that concentrate on enhancing self-concept may have a positive influence on decreasing depression and suicide rates among adolescents [23].

Physical health is also a part of self-modulation. As teenagers, getting enough sleep, eat well, and exercise regularly helps adjust emotions and re-energize from memories of cyberbullying.

2.6.2. Seek for Help

Furthermore, educators should take part in offering preclusions of depression, for example, cognitive-behavioral preventive can be taken to prevent depression among adolescents [24]. And if they think they’re depressed, it is suggested that parents and teachers should offer medical help and checkups for depressed adolescents.

Adolescents themselves can talk to parents or friends as communication is very important. There is no need to hide negative feelings or be ashamed about being depressed, therefore, sharing experiences with loved ones can help victims recover sooner.

3. LIMITATIONS AND FUTURE IMPLICATIONS

This study has several limitations that require future studies. We mainly make a statement from the following three aspects

3.1. More Level in Ecological Systems Need to Be Take into Account

Though previous studies have demonstrated the interplay between various ecological systems, researchers have not fully investigated factors in all ecological systems. Most of the researchers emphasize individual factors (e.g., personality or personal belief) and research on environmental factors influencing the consequences of cyberbullying is inadequate in a Chinese context. This paper, despite mentioning factors at the meso and macro level, fails to include studies about environmental factors relevant to cyberbullying at micro and exosystem level. Review and analysis on factors in the microsystem (e.g., adolescents’ relationship with their parents, peer relationship) and exosystem (e.g., the situation of the online community, social support system concerning cyberbullying) are necessary for the future.
Most of the previous studies about cyberbullying in the framework of ecological systems theory tend to investigate cyberbullying as a dependent variable and explore the potential risk factors of cyberbullying in different ecological systems. However, cyberbullying itself also happens at different levels of ecological systems which can cause different consequences. Studies regarding cyberbullying as an event across multiple levels and comparing the difference between diverse levels of cyberbullying are still insufficient in a Chinese context and more research in this direction is expected.

3.2. Lack of Causal Relationship

Furthermore, little previous research could draw causal conclusions concerning the relationship between cyberbullying and adolescents’ mental states because of the methodology. The most widely applied methods in this topic are questionnaires, which made the results prone to biases (e.g., self-reporting bias). A potential reason why questionnaires are so commonly used in this domain may be that empirical studies can face difficulties to obtain approval, since creating a cyberbullying event in the laboratory is, of course, immoral. Longitudinal studies can be considered in the future.

Although without rigorous empirical designs, causal conclusions will still be difficult to draw, longitudinal studies can provide us with more insights into the process of psychological changes after cyberbullying experiences. In fact, uncovering a causal relationship can be indeed difficult because the true underlying rationale is highly likely to be an intertwined relationship, and thus researchers can hardly rule out all confounds in real-life situations.

3.3. Potential Applications in Real Life

Finally, although many articles mentioned the implication of their research in clinical settings, studies concerning the prevention tactic to reduce cyberbullying among Chinese adolescence and effectiveness of intervention in reducing the negative consequences is deficient. Due to the prevalence and severe consequences of cyberbullying, more attention should necessarily be allocated to research about the potential applications in real life.

4. CONCLUSIONS

To sum up, cyberbullying is prevalent among adolescents in diverse Chinese societies (i.e., mainland, HK, Taiwan), although the prevalence differs in different districts. Cyberbullying victimization is positively associated with adolescent depression, suicidal ideation, suicide attempts, and self-harm, indicating that cyberbullying is significantly correlated with adolescents’ negative mental states in China. Many therapies and medications can be a positive support to adolescents who are suffering from a bully or being bullied, such as SSRI medications, CBT therapy, IPT therapy, and psychodynamic therapy.

To prevent cyberbullying, parents and teachers should make their children or students aware of this kind of bullying and give them support so they can seek help immediately if they are suffering. To prevent depression, gaining the specific knowledge is also extremely important. If an adolescent feels depressed, they should self-adjust and seek help if needed.

For the limitations of the researches, studies should research on other types of ecosystems and use not only self-reported questionnaires to prevent self-report bias and memory bias.

REFERENCES


