YOUTH CYBERBULLYING – UNDERSTANDING CONTEXTUAL PATHS TO PREVENTION AND RESILIENCE

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Abstract

The purpose of this project is to explore cyberbullying processes in youths from 12 to 24 years old in relation to their surrounding environmental systems or assemblages. We aim to contribute to a better understanding of cyberbullying processes among young people in the chinese society, and its mental health, well-being, and psychosocial impacts (e.g., anxiety, depression, suicidality, and aggression). Youths are located within specific socio-ecological contexts and, therefore, are affected by their surrounding environmental systems. Accordingly, young people's interactions with their online environment, associated online risks, and experience of harm are shaped by a complex interplay between them and their wider social environment (Görzig & Machakova, 2015). Bronfenbrenner's socio-ecological framework considers the individual as the locus of analysis within a larger socio-ecological setting composed of different levels. We apply that framework to cyberbullying by considering different levels of the socio-ecological system, namely the: (1) micro and meso systems, such as family, school, peers, as proximal contexts which directly influence the situational context of cyberbullying processes; (2) exosystem, which involves the process external to the immediate environmental setting, such as the community, and mass-media or digital technology; and (3) macrosystem, nested within broader contexts, such as institutional policies, support frameworks, and online culture. To apply a socio-ecological perspective (Bronfenbrenner, 1979, 2005), we used a quantitative approach, collecting data from youth, but also from key-stakeholders involved in the larger context. We adopt the quantitative approach by using the self-response survey data from young people. A total of 327 research participants (207 college students and 120 middle school students) in this study. The finding showed that youth involved in the exerpeience of cymberbullying victimization is assoiated with cyberbullying perpetation behaviors. Implications for practice and policy are discussed.

Keywords: Cyberbullying prevention and resilience, youth psychosocial well-being, depression, interdisciplinary research.

1. Introduction

Daily, over 175,000 children go online for the first time. With that first exposure to the cyber world, young people become potential victims of cyberbullying. Cyberbullying is a new field of research; it is considered a public health issue closely related to youth' behaviour, mental health, and development (Zhu et al., 2021). Cyberbullying may lead to adverse effects, such as isolation, sleeping disorders, anxiety, depression, and even suicide (Waller et al., 2018). Similares insights were found in Hong Kong by Wong and colleagues (2014). The perpetration and victimization of cyberbullying negatively correlate with adolescents' self-efficacy, empathy level, and psychosocial conditions.

The increasing integration of digital technologies into young people's lives means more avenues are available for their online victimization, making them vulnerable to online risks. Cyberbullying is a complex multilayered process, that involves both the individuals and their families, but also the educational community, institutional agents, and the technology sector. Therefore, an overall picture of cyberbullying, its impacts, and how to prevent and deter it, can only be achieved by combining different fields of knowledge.

In Macau, research on cyberbullying is scarce, with a couple of empirical studies of traditional school bullying in Macau (Weng et. al., 2017; Wong & Choi, 2006). Using a sample aged 10 to 20 years old, Weng and colleagues (2017) indicated that victims experienced the strong feelings of anxiety, depression and negative affectivity, and expressed the low satisfaction with life. More recently, Wan Ali et al. (2018), surveyed 2.185 young people from Hong Kong, Macao and Guangzhou, and found that 71%

of participants had been victims, and 63.7% had been perpetrators. This shows that cyberbullying has an impact in the Greater Bay Area.

Increasingly, in local news, cyberbullying is presented as a serious problem which raises public health concerns. However, existing literature on this topic in Macau and the Greater Bay Area of China is limited in several ways. First, previous studies of cyberbullying in the Chinese contexts are limited in scope and number. Second, little is known about the gender differences and psychosocial impacts of cyberbullying in Chinese societies. Research is needed to update the field's understanding of the Macau situation and the Greater Bay Area. Third, most studies in the greater bay area only focus on the traditional school bullying of children and adolescents (Weng et. al., 2017; Wong & Choi, 2006).

1.1. Objectives

The purpose of this project is to explore cyberbullying processes in youths from 12 to 24 years old. The objectives of this study are to

1. contribute to a better understanding of cyberbullying processes among young people in the Chinese society, and its mental health, well-being, psychosocial impacts (e.g., anxiety, depression, suicidality, and aggression), and family factors.
2. explore the role gender plays in cyberbullying perpetration among youths.
3. provide a better understanding of the potential factors influencing cyberbullying behaviors, and can lead to more service initiatives enabling young people in Macau and Guangzhou to live better in the Greater Bay Area.

2. Theoretical framework

Bronfenbrenner's socio-ecological framework (1977: 2000) considered the individual as the locus of analysis within a larger socio-ecological setting composed of different levels. We applied that framework to cyberbullying by considering different levels of the socio-ecological system, namely the: (1) micro and meso systems, such as family, school, peers, as proximal contexts which directly influence the situational context of cyberbullying processes; (2) exosystem, which involves the process external to the immediate environmental setting, such as the community, and mass-media or digital technology; and (3) macrosystem, nested within broader contexts, such as support frameworks, and online culture.

2.1. Cyberbullying

Cyberbullying happens when one person, or a group try to hurt or embarrass others, using a computer or a mobile phone (Wensley & Campbell, 2012). It can include posting hurtful comments, excluding someone intentionally, sending derogatory or threatening messages, distributing embarrassing photos, and spreading rumors or secrets, through devices, such as mobile phones or the internet (Ehman & Gross, 2019). Hinduja & Patchin (2014) considered cyberbullying as a "willful and repeated harm inflicted through computers, cell phones, and other electronic devices." In sum, the perpetrator's intention is essential, the bullying behaviour was repeated over time, and perpetrators conduct behaviours through electronic devices.

2.2. Prevalence of cyberbullying

A high prevalence of cyberbullying has been found in Hong Kong, ranging from 12% to 72% for victimization and 13% to 60% for perpetration; while males seem to be slightly more involved in cyberbullying compared to females (Wong et al., 2014). Xiao and Wong (2013) found that perceived social acceptance of cyberbullying behavior, internet self-efficacy, motivations, and experience of cyberbullying victimization were strong predictors of cyberbullying perpetration behaviors in Hong Kong.

2.3. Capabilities for well-being and resilience against cyberbullying

A growing literature, has indicated that youth cyberbullying victimization is influenced by micro-level individual-level factors (e.g., gender, age) and family situation. The cyberbullying social context, beyond perpetrator and victim, has received less attention in research. To date, research has revealed mixed findings regarding gender effects in the cyberbullying context. For instance, Wong et al. (2014) found that males are more likely than females to engage in cyberbullying; Xiao & Wong (2013) noted that girls are more likely than boys to experience cyberbullying; while other studies have reported no gender difference in cyberbullying behavior (Hinduja and Patchin, 2014). Family cohesion has been reported to be negatively associated with cybervictimization (Accordino & Accordino, 2011; Ortega-Barón et al., 2016); There is also research indicating that families with a lower level of cohesion may increase the probability of adolescents being the target of electronic bullying (Buelga et al., 2017;

Makri-Botsari & Karagianni, 2014). Buelga and colleagues (2017) also found that family cohesion was associated with the perpetration of cyberbullying. The role of adaptability in cyberbullying is yet known (Arató et al., 2021). Adaptability refers to the ability of the family to change the power structure, relationship of roles or the rules to respond to situational or developmental stress (Phillips et al., 1998; Place et al., 2005). Ybarra and Mitchell (2004) compared the family's characteristics of cyberbullies, victims and youth that were not involved in cyberbullying. The bullies had the highest percentage of reported poor emotional bonding with their parents.

This component focuses on the individuals at the center of cyberbullying situations, as perpetrators and victims, to explore their profiles, perceptions, experiences, and capabilities towards wellbeing and resilience. The inquiry will be framed around the following research questions.

RQ1.1. How do the perceptions of risk of online sharing, motivations, power dynamics, and sociocultural norms shape cyberbullying victimization?

RQ1.2. How is cyberbullying experienced by youth? How do experiences vary by different age, and gender and what implications does this have for the experiences of harm? How do these relate to risks in the offline environment?

RQ1.3. What are the main predictors and outcomes of cyberbullying for perpetrators and victims?

3. Methodology

Quantitative: self-response questionnaires targeting youth, the age ranges from 12 -24 years old. One survey is for middle school students in Macau; the other is for colleges/universities in the Greater Bay area. The questionnaire spplied pre-validated measures using likert scales to assess: 1) cyberbullying experiences (e.g., frequency; role as perpetrator and victim); (2) personal and family factors; (3) cyberbullying related attitudes and behaviors (e.g., subjective-well-being, monitoring, and quality of relationship with youth); and (4) sociodemographic.

3.1. Sampling strategy

The geographic locus of this project is the Greater Bay Area of China, including Macau SAR and Guangzhou. This study used convenient sampling strategy by recruiting participants age from 12 to 18 to participate, which refers to form 1 to form 6 in Macau local schools. 120 participants was recruited into the sample. At the same time, we established contact with colleges/universities in the Greater Bay Area, Guangzhou to replicate the cyberbullying situation, collecting self-response questionnaire data from youth in different cities in the region. We intended to contact colleagues and universities by adopting the convenient sampling, and in the Greater Bay Area, leveraging connections with the community to recruit the different groups of participants, collecting self-response questionnaire data from youth to compare the phenomenon in different cities in the region. The project examines the cyberbullying situation *per se*. 207 participants were recruited into the sample using this strategy.

3.2. Measurements

Cyberbullying Behavior: The Cyber Bullying Inventory was revised by Topcu and Erdur-Baker (2010). The scale has two parts with 14 identical statements providing scores for being a bullying perpetration and a victim for the past six months. ***Family adaptability and cohesion:*** FACES II is a practical tool to assess families and is one of the most widely used instruments in the world (Kouneski, 2000). ***Depression, Anxiety, and Stress:*** The Depression Anxiety Stress Scale-21 (DASS-21) is a reduced version of the Lovibond and Lovibond (1995) scale used for the assessment of depression, anxiety, and stress. The highest score of the percpetion of cyberbullying behaviors, family adaptation and cohesion, and the depression anxiety determines more severe outcomes. **Socio-Demographic Variables** include age, sex, education, household, family structure, language used at home, education of parents, the time spent on the internet, the reason of surfing the internet.

3.3. Data analysis strategy

Descriptive statistics, including frequencies, means, and percentages, were generated to observe and summarize the parent characteristics in the sample. Regression analyses were used to address the research questions and determine whether and the extent to which the independent variables of family adaptation and cohesion and Depression, Anxiety, and Stress, predicated two dependent variables: experience victimization cyberbullying and perpetration cyberbullying behaviors. T-tests and ANOVA can provide further information to help understand the means difference among groups.

4. Findings and discussions

The aim of this study is to provide a better understanding of the potential factors influencing cyberbullying behaviors, and can lead to more service initiatives enabling young people in Macau and Guangzhou to live better in the Greater Bay Area. A total of 327 research participants (207 college students and 120 middle school students) in this research. The finding showed that youth involved in the exerpeience of cymberbullying victimization is assoicated with cyberbullying perpetation behaviors. The reults are aligned with the existing literature in Hong Kong (Xia and Wong, 2013).

The descriptive statistics of the middle school students' characteristics give a fully understanding about the participants. There was a total of 120 participants, with 72 (60%) girls and 48 (40%) boys between the age of 12-18. Of the 120 participants, 45.8% spent time on the internet 3-6 hours, and 29. 2% spent time on the internet 6-9 hours. In the sample of college stdents, there was a total of 207 participants, with 124 (40%) females and 83 (60%) boys between the age of 18-24, in particular in the Freshment year. Of the 207 participants, 31.9% spent time on the internet 3-6 hours, 32. 9% spent time on the internet 6-9 hours, and 22.7% spent time on the internet above 9 hours. College students may spend more time on the internet than adolescents. The majority of college students (73.9%) surfing on the internet is using social media platforms, such as QQ, WeChat, WhatsApp, Facebook, or Instagram, etc while 65.2 % of the participants play games online. In the sample of adolescents, 61.7% of the participants using social media platforms and 62.5% of the participants also watching videos on YouTube, TikTok. Compared with the college students, middle school students pay more online games (71.7%). In the sample of adolescents, the means of experience victimization cyberbullying is 1.19 and perpetration cyberbullying behaviors 1.13 while the means of experience victimization cyberbullying in the college students is 1.16 and perpetration cyberbullying behaviors 1.24 accordingly.

As much of the scholarly attention on cyberbullying has focused on adolescents, it is of interest to examine gender differences in cyberbullying among college students. Interestingly, the finding of this study found that the effect of males youth including adolescentes and colleges students engaged more in cyberbullying than females youth. Male youth are more likely than female to be both victims and perpetrators of cyberbullying, in particular for the experience of cybervictimization. The results are the same as the exisiting literature (Slonje & Smith, 2008; Wong et al., 2014). The finding provided schools with insights into gender at the school-level which contribute to preventing cyberbullying. As gender information about individuals is relatively easy to obtain, practitioners can effectively use such information to design appropriate interventions in the fight against cyberbullying.

Aspects of the role of parents and its family relationship between family adaptability and cohesion, there has no significant predictor of cyberbullying. We failed to find significant diferences that the bullied youth tend to have poor relationships with their parents (Bjereld et. al., 2017) nor children who are victims comes from a family with less cohesion and higher level of control and perceives a less positive father and more positive mother.

The results showed statistically significant association between cybervictimization and depression, anxiety, and stress. Results indicated that experiencing cyberbullying in school setting is associated with the lower psychological adjustment years later as university students. College students who were cyberbullied in the past currently score significantly higher on depression. These results support the need for psychosocial interventions from a broader perspective, addressing the different dimensions of this phenomenon and its impact on victims.

5. Conclusion

In summary, the current study is motivated by gaps in evidence and knowledge of the prevalence, risk factors, and drivers of cyberbullying in the Greater Bay Area, Macua and Guangdong. The research thus makes contributions to address these gaps and to enrich the related academic discourse. Baed on the research to date, the finding of this study contributed with actionable insights and outputs for the technology industry. In addition, the finding provids a nuanced understanding of the cyberbullying ecosystem and recommendations to the technology industry on design considerations to support better prevention, detection, and reporting of cyberbullying. Moreover, on the macrco-level, the local government, law enforcement, and policymakers, we provide evidence-based policy and practice recommendations for the improvement of local interventions and the strengthening of institutional coordination and stakeholder collaboration in the prevention of cyberbullying.

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