

Functions of cognitive reappraisal in cyberbullying and the well-being of cyber-victimized Chinese students

Cyberbullying is a serious problem, whose victims include 67% of middle school, 65% of high school, and 45% of university students in Hong Kong, China. Cyber-victims are often anxious or depressed, and are twice as likely as others to show suicidal behaviors. Moreover, angry cyber-victims who poorly regulate their emotions often cyberbully others, creating a vicious cycle. Cyber-victims urgently need effective training to cope with cyberbullying, improve their psychological well-being, and reduce their inclination to become cyber-bullies, but current school-based interventions rarely address their needs.

Past studies showed that reappraising or re-evaluating an emotion-eliciting situation can change its meaning (i.e., *cognitive reappraisal*, Gross & John, 2003), which often reduces its negative impact. However, no published study has applied this adaptive, effective, low-cost strategy to cyber-victims. Therefore, this study will develop and evaluate a training program by applying cognitive reappraisal to help cyber-victims.

Specifically, we propose a mixed methods study. At Time 1, we will survey secondary and college students about their past experience with cyberbullying and cyber-victimization, psychological well-being, and cognitive reappraisal. Students who report being cyber-victimized will be randomly assigned to one of three evidence-based, 4-session 2-week training programs (i.e., cognitive reinterpretation vs. distancing vs. psychoeducation [active control group]). The training programs for cognitive reinterpretation and distancing will feature an interactive design with multi-media content, behavioral exercises with simulated cyberbullying scenarios, practices, and reflections. The active control group will receive a successful local psychoeducation program which increases awareness about cyberbullying (*Leung et al., 2018a; 2019). We will interview a subgroup of students before and after the training to collect qualitative information about the effectiveness of the intervention.

As both cognitive reinterpretation and distancing can be effective cognitive reappraisal strategies, we will compare their efficacy with an active control group. Both experimental and control groups will complete the re-administered Time 1 survey as a post-test immediately after completing the training programs (Time 2) and two months later (Time 3). *Difference-in-differences structural equation modelling with residual centering* will examine cognitive reappraisal mechanisms and their effects on students' well-being and subsequent cyberbullying behavior, along with the moderating effects of cyber-victims' characteristics.

Our results will inform future interventions and local school curricula to help cyber-victims, improve their mental health, and eventually stop the vicious cycle of cyberbullying.