



# Intervention for Reactive/ Proactive Aggressors and Aggressive/ Pure Victims of School Bullying in Hong Kong: A Review and New Developments

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## Abstract

No prior study has focused on intervention specifically for high-risk schoolchildren with both subtypes of aggression, reactive and proactive aggression, as well as both subtypes of victimization, aggressive and pure victimization. It was being ignored by the researchers that not much work has been done on evidence-based evaluations of longitudinal study of the effectiveness of interventions for such the above specific children. Based on the pioneering longitudinal mixed-methods study of the effectiveness of Cognitive-behavioral Group Therapy on aggressive victimization conducted by Fung in 2012, recent further studies have proven the effectiveness of Cognitive-behavioral Group Therapy for schoolchildren with pure victimization as well as those with reactive or proactive aggression. A review of quantitative and qualitative results found consistent findings indicating that schoolchildren's cognition, emotion, and behavior were positively reconstructed by group interventions. Furthermore, an evidence-based study on adopting Cognitive-behavioral Group Therapy in the parallel parent-child group, child-only group, and parent-only group for reducing schoolchildren with reactive and proactive aggression, the most significant outcome was found in child-only group rather than parent-only and parallel parent-child group. It confirmed that children directly involvement was the most effective format. These studies have had important short- and long-term impacts, such as lessening school bullying, violence, and peer victimization in school settings, reducing juvenile delinquency and adult crime including intimidation, assault, and homicide. There will be enormous across-the-board financial savings to society. It is believed that by intervening before these adult problems fully develop; a more cost-effective way to reduce the long-term burdens on society can be achieved. However, limitations such as the attrition rate and the availability of control groups limit the power of the research. Implications for future research direction and intervention were discussed.

## Keywords:

Bullying, Aggressive victimization, Pure victimization, Proactive aggression, Reactive aggression, Intervention, longitudinal study

## Introduction

Bullying at school is an alarming problem in Hong Kong. An increasing trend of aggressive behavior and peer victimization has been found among schoolchildren, which is cause

for serious concern among parents, teachers, school counsellors, and social workers [1]. Yet, no evidenced-based outcome evaluation for school bullying has been developed to improve quality of life for children and adolescents

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[2,3]. Previous studies of intervention for schoolchildren with aggressive behavior and peer victimization associated with school bullying have mainly focused on two target groups: bullies and victims [1,4,5]. The efficacy of interventions has been questioned [6], the reason might be not tailor-made for specific subtypes of aggressive behaviour or victimization.

### Discussion

The distinctions between the reactive and proactive subtypes of aggression, as well as the aggressive and pure subtypes of victimization, have been well known for three decades [7] and four decades [8] respectively. Proactive aggression represents deliberate behaviour that is aimed at obtaining desired goals and is motivated by the anticipation of rewards, while reactive aggression refers to hostile or angry responses to provocation or perceived threats [7]. However, to the author's knowledge, there was no previous study on designing specific interventions targeting high-risk schoolchildren with reactive and proactive aggression as well as aggressive and pure victimization until Fung started her evidence-based outcome support studies in 2012 [9]. Since then, a series of pioneering longitudinal studies evaluating the outcome effectiveness of a Cognitive-behavioural Group Therapy intervention in reducing aggressive behaviour and peer victimization in school bullying have been gradually published. Moreover, the studies had generated research interests and discussions in other parts of the world as to effectiveness of Cognitive-behavioural Group Therapy intervention for anti-bullying programs [10-12].

The Fung (2012a) study was the first of a series of longitudinal studies to evaluate all aspects of the outcome effectiveness of Cognitive-behavioral Group Therapy intervention specifically for high-risk schoolchildren with aggressive victimization [9]. By employing multi-stage assessment procedures and mixed-methods in a one-year longitudinal design, significant improvements were found in physical and verbal victimization and social exclusion over time. Significant decline was found in anxious/depressed levels and trait anger. By distinguishing between aggressive and pure victims, who are positively associated with externalizing and internalizing behavior respectively [13], a further longitudinal tailor-made evidence-based intervention study for high risk schoolchildren with pure victimization, targeting the distinct cognitive, emotional and

behavioral characteristics of the Cognitive-behavioral Group Therapy intervention has been proved recently [14]. Aggressive victims have been associated with externalizing problems, being easily provoked and taking revenge [15], whereas pure victims have been associated with internalizing problems and low self-esteem [16]. The above studies revealed that aggressive and pure victimization have different foundations and correlates, so that targeted intervention is needed according to the characteristics of each subtype. Fung found that aggressive victims used a more externalized attribution style and were easily provoked [9]. Cognitive-behavioral Group Therapy Intervention should thus focus on reducing external attribution bias and anger management. Fung found that pure victims used a more internalized attribution style and were self-blaming and fearful [14]. Cognitive-behavioral Group Therapy intervention in this group should thus focus more on reducing internal attribution bias, improving self-worth and relationships with others.

As noted above, as with victimization, there are two subtypes of aggression, proactive and reactive [17], which exhibit distinct features. Proactive aggressors have been associated with positive outcome expectancies and actual rewards linked to instrumental aggression [18] and with antisocial behaviour [19]. Reactive aggressors were associated with early-stage information-processing deficits and hostile attributional bias [18] and hostile impulsive anger-driven aggression [20]. The studies reviewed in this article showed that proactive and reactive aggression have different underlying structures, functions, and correlates, so specialized Cognitive-behavioral Group Therapy interventions have been developed that match the particular characteristics of each subtype. Fung stressed that proactive aggressors overestimate themselves and are highly correlated with callous-unemotional traits; Cognitive-behavioral intervention for this group is based on empathy building and moral development [21]. To treat reactive aggressors, Fung reduced their hostile attributional bias through expanding cue-picking away from selective attention to others. The intervention also emphasized identifying and changing negative self-talk and anger management skills [22] (**Table 1**).

In terms of screening instruments, three scales have been the most useful. First, the Reactive and Proactive Aggression Questionnaire (RPQ) was used to screen proactive and reactive aggressors

**Table 1: Summary of Cognitive-behavioral Group Therapy intervention studies in schoolchildren with reactive/proactive aggression and aggressive/pure victimization.**

Author	Target Group	Grade & Age Range	Clinical Sample Size after screening 1SD or above	Screening Instruments & Other Scales	No. of CBGT Intervention sessions	Follow-up Study Duration after intervention	Quantitative Results with Significant Reduction	Qualitative Results with Improvements
Fung [9]	Aggressive victims	Grade: 7 - 9 Age: 11-16	68	Screening: RPQ, CBCL-YSR, PVQ Other Scales: STAXI, ESB	10	1 year	Physical and verbal victimization; social exclusion; anxious/depressed level; trait anger	Attribution style; outcome evaluation; attribution to others; anger management; problem solving
Fung [14]	Pure victims	Grade: 7 - 9 Age: 11-17	68	Screening: RPQ, CBCL-YSR, PVQ	10	1 year	Physical and verbal victimization; social exclusion; anxious/depressed level	Self-esteem; Self-blame; negative outcome evaluation; fearfulness, problem solving
Fung, <i>et al.</i> [21]	Proactive aggressors	Grade: 7 - 9 Age: 11-17	63	Screening: RPQ, CBCL-YSR Other Scales: IRI	10	1 year	Reactive and proactive aggression, verbal and physical aggression	NA
Fung [22]	Reactive aggressors	Grade: 7 - 9 Age: 11-16	66	Screening: RPQ, CBCL-YSR Other Scales: HIWC, ARI, IPA	10	2 years	Reactive aggression, aggressive behavior	Attribution to others; anger management; problem solving
Fung [28]	Reactive and Proactive aggressors	Grade: 4 to 6 Age: 8-14	126	Screening: RPQ Other Scales: RPQ-PRF	8	6 months	General aggression and reactive aggression	NA

[20,23]. Second, the Peer Victimization Scale (PVQ) was used to select aggressive and reactive victims [24]. Finally, the Child Behavior Checklist-Youth Self-Report (CBCL-YSR) was used to identify schoolchildren with aggressive behavior, attention problem, and delinquency subscales [25]. All three scales had high internal consistencies. The Chinese version of the RPQ, PVQ and the CBCL-YSR had Cronbach's alpha values ranged from .7 to .9 in samples of Hong Kong schoolchildren [9,14,21,22,23,27,28]. In addition to the high conceptual relevance to the constructs, the items were kept general and appropriate to a wide range of school situations. Instructions and items were written in a lexically and grammatically simple manner, so most 8-year-old schoolchildren and adolescents could understand. Other scales were adopted to measure more fully the subject behavior variables. The State-Trait Anger Expression Inventory (STAXI) measures the experience (State-Anger [S-Anger]) and expression (Trait-Anger [T-Anger]) of anger [26]. They were useful in operationalizing trait anger, anger temperament, and anger expressions.

To derive quantitative results, multivariate analysis of variance (MANOVA) was conducted on the student self-reports and parent and teacher ratings, if available, for all levels of variables across

three to four time points (pre- and post-test and six-month and one year follow-ups, if available). Qualitative results were obtained by individual structured interviews with the students, parents and teachers, when possible, before and after the intervention. One common observation across studies was the strong delayed effect one year or two years after the studies [9,22].

In general, there were some common limitations across studies. First, the attrition rate averaged about 30% which was inevitable because two of ten schools closed down and some students changed schools. It raises the question of the external validity of the results. Second, most studies did not have a control group, due to ethical issues. This lack of a standardized control group limits the power of the studies. Thus, it is suggested that control groups are included in future studies. Third, the small sample size for one primary school study also limits the generalizability of the results [27]. Finally, the long-term positive delayed effect might not be due to the Cognitive-behavioral Group Therapy intervention, but to other factors, like maturation or regression to the mean. A control group would remedy this limitation.

These studies have implications for social work practice, by providing a useful methodology to screen for high-risk students, and providing

relevant Cognitive-behavioral Group Therapy intervention session plans tailored to the cognitive, emotional and behavioral background of the at-risk treatment group. Also, a number of studies show that parents' and teachers' support played a significant role in sustaining the positive improvements of schoolchildren [9,27,28].

### Conclusion

Overall, the effectiveness of each Cognitive-behavioral Group Therapy intervention in reducing school bullying and violence as well as peer victimization at school has been consistently verified. Recently, an evidence-based study of Cognitive-behavioral Group Therapy for reducing children's reactive and proactive aggression, featuring not only a child-only group but also a parent-only group and a parallel parent-child group, found a more significant effect in the groups including children than in the parent-only group [28]. Adopting Cognitive-behavioral Group Therapy intervention in peer counselling with mentors and mentees rather than in a group

format should be further explored to determine which is the most effective way to reduce the aggressive behavior associated with bullying at schools.

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