

# The Impact of Bullying Prevention:

An Examination of Change in  
Participants of the Canadian Red Cross  
*Beyond the Hurt* Program

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### Executive Summary

Given the scarcity of economic resources allocated to school programs, it is important that bullying prevention programs are properly evaluated so that school officials can make sound, evidence-based decisions about program implementation. The present study evaluated a bullying prevention program developed by the Canadian Red Cross (2013), called *Beyond the Hurt*.

A sample of 149 Grade six students were recruited from three schools in an Anglophone school district in southern New Brunswick. These students were recruited from schools implementing the *Beyond the Hurt* program, and one school that did not implement the program.

Participants filled out two surveys approximately four months apart, between which they were either given the *Beyond the Hurt* program (experimental group) or continued on with their regular school programming (comparison group). These surveys included (a) the Olweus Bully/Victim Questionnaire (Olweus, 1996), which measures the frequency of engaging in bullying behaviour, experiencing bullying victimization, and witnessing of bullying, (b) the Level of Bullying Knowledge Index and Tolerance of Bullying Scale, which were developed for this study as a measure of bullying-related knowledge and bystander (in)tolerance of bullying, and (c) the Reactive-Proactive Aggression Questionnaire (Raine, Dodge, Loeber, Gatzke-Kopp, Lynam, Reynolds, Stouthamer-Loeber & Liu, 2006), which measures instrumental and reactive levels of general aggression tendencies.

The present study provided support for the *Beyond the Hurt* program as it was found that the youth most vulnerable to bullying (i.e., youth who had a history of either engaging in or being victimized by bullying in the 2-3 months before program implementation) reported significant reductions in their experiences of bullying perpetration and victimization after receiving the program. Thus, there was evidence of benefit of *Beyond the Hurt* as a secondary prevention tool for vulnerable youth. However, there was no overall change in bullying experiences for the total sample, who had reported general low levels of bullying victimization and perpetration at baseline. Thus, the program's impact as a general prevention tool is less powerful in terms of having a direct impact on bullying.

These results also inform our understanding of the differential need to target reactive (i.e., emotionally-triggered) and proactive (i.e., personal gain) motives for aggression in the context of bullying prevention. Specifically, the current study found that *Beyond the Hurt* was most impactful for youth who engaged in proactive forms of aggression rather than for reactively aggressive youth. Thus, prevention programs that focus on decreasing social rewards for bullying may increase the effectiveness of the program with youth who engage in proactive bullying. It is from this perspective that school-wide prevention programs have their value as they may create an atmosphere that is intolerant of bullying, thereby reducing the social reinforcement of engaging in this behaviour for proactively motivated youth.

Finally, the current findings provide general insight into targets for bullying prevention programs and support the notion that short-term evaluations of bullying prevention programs can detect meaningful changes in bullying. Long-term outcomes are required of the *Beyond the Hurt* program to determine whether these secondary prevention effects are sustained over time.

## **BULLYING PREVENTION: AN EXAMINATION OF CHANGE IN PARTICIPANTS OF THE CANADIAN RED CROSS *BEYOND THE HURT* PROGRAM**

### **Context of Bullying and Bullying Prevention Programs**

Countless young Canadians experience the negative effects of bullying on their behavioural, social, physical, and mental health functioning every day. The experience of being the target of bullying is related to many adverse outcomes, such as depression, anxiety, headaches, reduced social functioning, lower academic achievement, and physical injury (Fekkes, Pijpers, & Verloove-Vanhorick, 2004; Hawker & Boulton, 2000; Kaltiala-Heino, Rimpelae, & Rantanen, 2000; Schwartz, Gorman, Nakamoto, & Toblin, 2005; Smokowski & Kopasz, 2005; Strabstein, McCarter, Shao, & Huang, 2006). Tragically, hundreds of youth are bullied to the point of suicide every year (Kim & Leventhal, 2008; Statistics Canada, 2012). Those who perpetrate bullying are not exempt from these negative outcomes, as they also often report experiencing depression, substance abuse, academic problems, and higher rates of violence and delinquency across the lifespan (Haynie, Nansel, & Eitel, 2001; National Institute of Child Health and Human Development, 2010, 2012; Smokowski & Kopasz, 2005). Additionally, emerging research suggests that even those who witness bullying as bystanders are negatively impacted by it, as these witnesses report experiencing increased levels of depression, anxiety, substance abuse, and somatic complaints, regardless of previous victimization (Rivers, Noret, Poteat, & Ashurst, 2009).

Research has demonstrated that at least one in three Canadian adolescents report having been bullied in the recent past, and 47% of Canadian parents report having a child who has been bullied (Molcho, Craig, Due, Pickett, Harel-Fisch, & Overpeck, 2009). Another Canadian study found that 42% of boys and 23% of girls in middle school reported that they had bullied others in the past two months (Pepler, Craig, Connolly, Yuile, McMaster, & Jiang, 2005). Rates of bullying victimization and perpetration paint a rather bleak picture of the scope of the problem in Canada, emphasizing the need for bullying prevention (Smith, Cousins, & Stewart, 2005).

All of the provinces and territories in Canada are addressing the issue of bullying through a variety of strategies and initiatives, and several have opted to formalize their efforts through legislation. For example, Nova Scotia, Quebec, Alberta, and Manitoba all have passed Bills in their respective education-focused legislation that require schools to have clear policies and procedures regarding bullying and punishment (i.e., Promotion of Respectful and Responsible Relationships Act, 2012; An Act to Prevent and Stop Bullying and Violence in Schools, 2012; Education Act, 2012; and The Public Schools Amendment Act [Safe and Inclusive Schools], 2012, respectively). Prince Edward Island and the Northwest Territories are also currently considering similar legislation. Ontario and New Brunswick have taken the legislation one step further by requiring that every school implement programs to address and prevent bullying and submit annual progress reports to the office of their provincial Departments of Education (An Act to Amend the Education Act with Respect to Bullying and Other Matters, 2012; and An Act to Amend the Education Act, 2012, respectively).

Since the mid-1990s, there has been an increase in bullying prevention programs across Canada in an effort to address the issue (Smith, Cousins, & Stewart, 2005), a trend that will likely continue given these new legislative advances. Given that economic resources being allocated to school programming are sparse, a stronger case can be made for specific bullying prevention programs when they are evidence-based (Black & Jackson, 2007). However, there are limited data available on

the evaluation of bullying prevention programs, and the research that does exist is largely inconclusive (Salmivalli, 2001; Smith, Cousins, & Stewart, 2005; Teglasi & Rothman, 2001).

Research on bullying prevention programs report outcomes that range from positive effects on bullying (i.e., decreases in bullying), to negligible effects (i.e., no changes in bullying), to negative effects (i.e., increases in bullying). Moreover, some research has found both increases and decreases in bullying, moderated by variables such as age and gender. For example, Salmivalli (2001) evaluated a peer-led bullying program by examining bullying rates and attitudes in 196 grade seven and eight students before and after the intervention. This study found that the program was effective for girls, but not for boys. In fact, boys experienced an increase in pro-bullying attitudes. Baldray and Farrington (2002) investigated a middle school bullying program that targeted social cognitive competence skills to address bullying. This investigation involved 239 students aged 10-16 years, for whom the frequency of victimization before and after the intervention was assessed. They found that the intervention was effective for older students, whereas it actually led to an increase in reported victimization in younger students. Similarly, Teglasi and Rothman (2001) evaluated a bullying prevention program that targets social problem solving skills with a sample of 59 fourth- and fifth-grade students. They also found disparate and negative results. Specifically, non-aggressive children experienced decreases in bullying, whereas aggressive children experienced increases in bullying.

Smith, Schneider, Smith, and Ananiadou (2004) conducted a meta-analysis to synthesize the existing evaluative research on whole-school approaches to bullying prevention programs. This meta-analysis included 14 studies evaluating 14 programs, including two Canadian studies. They found that only one of these programs resulted in a significant decrease in bullying (i.e., the Olweus Bullying Program developed in Norway; Olweus, 1993). The remaining 13 studies demonstrated either negligible or negative effects on bullying (Smith et al., 2004). Undoubtedly, the quality of these programs likely accounted for some of the variation in the existing evaluative literature on bullying prevention programs, but these contradictory findings make it difficult to understand the true impact of such programs.

There are many challenges involved in evaluating bullying prevention programs, which contributes to these noted equivocal findings across studies. One of these challenges revolves around how to best define bullying. Although it is a term that is used colloquially with relative ease, its operational definition is often debated. There are four main features that arise in definitions of bullying: (a) harm, (b) power, (c) intentionality, and (d) repetition. These four features have been combined in various ways to develop several possible definitions. The first of the more commonly accepted features of bullying definitions is harm, which refers to the experience of some sort of hurt or distress inherent in bullying. The second feature commonly accepted feature is power, which refers to the presence of a power imbalance and/or the misuse of power (Smith et al., 2004).

Among the more debated features of the definition of bullying are intentionality and repetition. When included as a feature, intentionality refers to the need for behaviour to be intentional (i.e., purposefully hurtful) to be considered bullying. This definition serves to rule out the hurtful actions of certain groups of persons, such as (a) young children, (b) those with impaired social functioning due to mental illness, and (c) those who acted in good-faith but caused inadvertent harm. It could be argued, however, that the inclusion of intentionality is not appropriate in the context of older children and adolescents who developmentally should have the ability to foresee the potential impact of their behaviour (e.g., IMDiversity, 2014). Relatedly, repetition is sometimes included in the

definition of bullying based on the view that intentionality cannot be established from a single behavioural occurrence. That is, the persistence of the behaviour is what is thought to capture true bullying. Featuring the concept of repetition in definitions of bullying is more empathetic and lenient towards the perpetrator, following the “good people do bad things” mentality. Still, others have suggested that repetition should not be included in the definition of bullying on the grounds that: (a) a single event can have a lasting, serious effect on those involved (Psychological Harassment Information Association, 2010), (b) a perpetrator of bullying may target a given individual only one time, but have multiple targets, (c) the bullying may have been taking place long before the first detected incident, and (d) intervention should ideally occur after the first incident as it may be an indicator of future behaviour. Additionally, infrequent but severe incidents of bullying can be detrimental, but may not necessarily be included in definitions of bullying that require bullying to be repetitive in nature.

The variety of definitions of bullying allow for great disparity in the literature on this behaviour, both in general and with regards to bullying prevention programs specifically. Considerably different results might emerge even if the same bullying prevention program was evaluated from two definitional perspectives, one specifying bullying as repetitive/intentional and the other without these specifications. For example, in Baldry and Farrington’s (2004) study evaluating the impact of a peer-led middle school bullying prevention program, they included repetition as part of their definition of bullying. In their study, participants who indicated that they had been victimized “once or twice” in the previous three months were not considered to have experienced bullying because it did not meet the repetition aspect of this definition. Regardless of their actual results, it is clear that their sample (and therefore findings) could have been different if repetition was not part of their definition of bullying.

Although the precise wording of a definition of bullying is less important than its content, developing a standard in terms of the inclusion of harm, power, intentionality, and repetition would go a long way in establishing consistency in the bullying literature. Harm and power are important aspects of bullying; these elements are typically not refuted. Further, given that single events of bullying could be precursors for more persistent engagement in these behaviours, bullying ought not be limited in definition to only include repeated behaviours. Only one incident of bullying is required for the experience of its negative effects (Psychological Harassment Information Association, 2010).

The definition of bullying ought to also recognize the importance of intention in differentiating between behaviours that purposely cause harm and those behaviours that are inadvertently hurtful. Although bullying is typically recognized as an intentional behaviour, two principles should be used to qualify the intentionality of bullying. The first principle involves reasonable foresight. That is, even if unintentional, a behaviour should be considered bullying if the perpetrator is at an age or level of development for which it would be reasonable to be able to foresee the negative impact of their behaviour. The second principle involves repetition. Specifically, the behaviour would be considered bullying if it was unintentionally harmful at its onset, but the actor repeatedly carried out the behaviour despite learning about the negative effect experienced by the targeted person. In its simplest form, bullying can be defined as intentionally hurtful or harmful behaviour that involves the misuse of power. An expanded definition of bullying should also note that bullying is not always intentional (such as when the impact of the behaviour is foreseeable), nor is it necessarily a repeated event.

Another challenge for evaluating bullying prevention programs involves how to measure the problem. It is often difficult to determine the actual incidence rates of the target behaviours as these rates depend on various data sources (e.g., victim reports, police reports, school records, hospital records) and willingness to report. In addition, awareness can increase reporting and detection. For example, in the 1980s, widespread child abuse awareness and prevention campaigns led to a drastic increase in reporting rates to local police and child protective services in Canada and the United States, which artificially increased incident rates (Knudsen & Miller, 1991; Reidel & Welsh, 2008). This reporting increase led to a public outcry that there was a “child abuse crisis” (e.g., Fagan, 1997). However, official national survey data indicated that, at the same time that local police and other agencies were being overwhelmed with reports of child abuse, the national incidents rates were actually steadily decreasing (Knudsen & Miller, 1991).

The trend of discrepant reporting and incident rates suggests that as people are more aware of a social injustice, they are more likely to notice it when it occurs (sensitivity hypothesis) and to feel justified in reporting it to the proper authorities (validation hypothesis; Knudsen & Miller, 1991). This practice speaks to the success of the awareness campaign through the decreased tolerance of the perceived injustice. This trend can be generalized to the bullying discourse as well. Although the national conversation about bullying may be more prevalent now than ever, it does not necessarily indicate that the true incidence rate of bullying has also increased. In fact, the Health Behaviour in School Aged Children survey in Canada suggests that national bullying rates are slowly declining (The Evangelical Fellowship of Canada, 2013).

The differentiation between reporting rates and true incident rates poses a relevant challenge in bullying prevention program evaluation on an individual school basis. If a bullying prevention program was successful in promoting awareness about bullying within the school, then theoretically there would be an increase in reported bullying incidents as the result of increased sensitivity to and validation of the issue (Smith et al., 2004). The exception would be if the school already had high rates of awareness prior to the bullying prevention program (i.e., high sensitivity and validation), in which case no reported increase would be expected in the rates of reported bullying (Beran, & Shapiro, 2005). Thus, the challenge therein lies in determining whether an increase in reported bullying after a bullying prevention program implementation is due to increased sensitivity to and validation of the issue, or whether this increase is because the program is actually producing negative effects. Moreover, using frequency of bullying as a standalone, context-independent measure of bullying prevention program success results in very complicated interpretation of the outcome of such evaluations.

Overall, more research is needed to aid in the disentanglement of the equivocal findings within the existing literature on bullying prevention programs. Specifically, research needs to examine additional outcome variables that will allow for meaningful interpretation of reported bullying frequency. The importance of this research would have implications both in research and in practice. That is, it would help establish a more efficient and consistent method of evaluating bullying prevention program effectiveness. In turn, such research will advance the bullying prevention field in terms of developing and implementing more effective prevention programs.



## Current Study

In light of the noted limitations in bullying prevention program evaluations noted above, the current research adds to the literature by examining the effectiveness of a commonly implemented bullying prevention program in Canada. This research also provides a template for future evaluative research that is more sensitive to short-term effectiveness of bullying prevention programs by examining outcome variables above and beyond bullying frequency, such as tolerance of bullying (related to the validation hypothesis) and bullying-related knowledge (related to the sensitivity hypothesis; Knudsen & Miller, 1991). For the purposes of the current study, bullying was defined as intentionally hurtful or harmful behaviour that involves the misuse of power. It was also recognized that bullying is not *always* intentional (such as when the impact of the behaviour is foreseeable, or the behaviour is repetitive), nor is it necessarily a repeated event.

The current research represented an evaluation of the bullying prevention program offered by the Canadian Red Cross called *Beyond the Hurt* (Canadian Red Cross [CRC], 2013). *Beyond the Hurt* trains middle and secondary school students to deliver workshops to their peers on issues related to bullying. The in-depth student training typically takes place over two days, and focuses on (a) increasing knowledge and awareness of bullying, (b) teaching bullying intervention skills, (c) encouraging student-led advocacy, and (d) emphasizing the importance of intolerance of bullying (e.g., reporting/responding to bullying). Students are trained as “Youth Facilitators” and are equipped with leadership and presentation-related skills in order to deliver workshops to their peers about what they have learned. A goal of the program is that the peer-led workshops will contribute to the prevention of bullying in the school (CRC, 2013).

The *Beyond the Hurt* program was developed in 1984 and is currently being implemented all across Canada. The program has received a great deal of media attention in recent years due to a variety of sources offering support (financial and otherwise) for the program, such as the Department of Canadian Heritage, the Federal Government of Canada, and several other organizations (CBC News, 2013; Gari, 2013; Lofaro, 2013). This positive attention has contributed to recent rapid growth in program implementation across Canada (S. Coy, personal communication, March 21, 2014). In addition, the New Brunswick Department of Education and Early Childhood Development has officially supported the implementation of the program across all school districts, and it is currently implemented in approximately 80% of New Brunswick schools (Department of Education and Early Childhood Development of New Brunswick, 2014; S. Coy, personal communication, March 21, 2014).

*Beyond the Hurt* was developed using evidence-based principles (PREVNet, 2007), yet there is a lack of research that evaluates the program. Given the widespread implementation of *Beyond the Hurt* and the limited assessment of the program, the current study evaluated the effectiveness of the *Beyond the Hurt* by investigating both incidence rates of bullying and additional outcome variables. Personal impact statements have supported the program’s effectiveness (CRC, 2013); based on this limited anecdotal data, it was hypothesized that the *Beyond the Hurt* would have a positive impact on bullying. It was predicted that *Beyond the Hurt* implementation would lead to increased endorsement of indicators reflecting intolerance of bullying behaviours (e.g., reporting bullying to a teacher, intervening, or taking other appropriate action), and increased levels of bullying-related knowledge after the implementation of *Beyond the Hurt* (e.g., types of bullying, effects of bullying, safe strategies for intervention), collectively referred to as “bullying awareness.” If an increase in bullying incidence

was found, along with higher awareness, then these data would support sensitivity and validation hypotheses a represent a positive program impact. Similarly, if no change in bullying incidence was found, along with unchanged high levels of awareness, then these data would support the sensitivity and validation hypotheses through a neutral program impact. If decreases in bullying incidence were found, with an increase in tolerance and knowledge, then these data would be interpreted as a positive program effect with direct reduction outcomes (i.e., not supporting the sensitivity and validation hypotheses). If increased bullying incidence was found, along with lower levels of bullying awareness, then these data would be interpreted as reflecting a potential negative program impact on bullying.

Perpetrator style of aggression also was explored in order to investigate how it may interact with program outcome. The literature on bullying and aggression has consistently found that there is a significant, positive relationship between bullying perpetration and levels of proactive and reactive aggression (Camodeca, Goossens, Terwogt, & Schuengel, 2002; Calvete, Orgue, Estevez, Villardon, & Padilla, 2010). Research has also found that levels of proactive/reactive aggression are significantly higher in those who are perpetrators of bullying compared to those who are not (Pellegrini, Bartini, & Brooks, 1999), and those who both perpetrate and are the target of bullying have significantly higher levels of proactive/reactive aggression (Burton, Florell, & Gore, 2013). Although these trends have been well documented in the literature on bullying (Burton, Florell, & Gore, 2013), levels of proactive and reactive aggression have not been examined separately as possible moderators of bullying prevention program effectiveness for perpetrators of bullying.

Motivational and contextual differences in reactive and proactive aggression may contribute to differential bullying prevention program impact on bullying behaviours. Given that reactive aggression is conceptualized as an emotionally-induced behavioural response to perceived provocation, preliminary research and theory posit that reactively aggressive youth may benefit most from intensive treatment that involves social skills training, modification of cognitive tendency to attribute hostile intentions to others, problem-solving skills, and anger management skills training (Dodge, 1991; Meloy, 1988; Merk, Orobio, Koops, & Matthys, 2005). These treatment targets are largely outside the scope of the *Beyond the Hurt* curriculum. Alternatively, given that proactive aggression is characterized by organized, gain-based, non-emotionally driven behaviour, youth in this category may benefit more from perspective-taking, empathy development, and operant conditioning (i.e., associating positive outcomes/consequences when they behave prosocially and negative outcomes/consequences with aggressive behaviour; Dodge, 1991; Meloy, 1988; Merk et al., 2005; Newman, 1997). The *Beyond the Hurt* curriculum includes various lesson and activities on perspective-taking and empathy-development; therefore, it was expected that those who primarily perpetrate bullying proactively would have their needs better met by *Beyond the Hurt*, and would, thereby, show a positive change in bullying behaviours.

## Method

### Participants

The program director for the RespectED department of the Canadian Red Cross for Atlantic Canada worked in conjunction with the researchers to identify eligible participant schools in New Brunswick, Canada that were accessible to the research team. Eligibility was based on whether or not the school had already implemented the *Beyond the Hurt* program in the past and planned to implement it again during the 2014 – 2015 school year. Three schools were identified and recruited to participate from an Anglophone school district in southern New Brunswick, with each school representing a different geographic area of the district at the request of the district superintendent. Two of the schools were larger, urban schools and one school was a smaller, rural school. In this school district, each school implements *Beyond the Hurt* every year to the grade six students; therefore, grade six students were recruited to participate in the current study with parental consent. Although the original conceptualization of the current study anticipated three experimental groups (i.e., all three schools receiving the program), due to unforeseen circumstances one school was not able to implement the program until after all the data collection was complete. Therefore, this school was considered a non-*Beyond the Hurt* comparison group for the purpose of the evaluation.

**Sample Characteristics.** The sample comprised of 173 male and female grade six students at the baseline point of data collection (“Time 1”), and 149 students made up the sample at the second point of data collection (“Time 2”). The final sample, for which both Time 1 and Time 2 data were obtained, consisted of 126 (84.6%) students in the experimental group and 23 (15.4%) in the comparison group. The experimental and the comparison groups were compared on demographic variables to ensure that two samples were comparable before the intervention (see Table 1). There were no significant differences between these groups in terms of gender, language, country of origin, age, number of friends, self-reported level of bullying-related knowledge, and previous exposure to the *Beyond the Hurt*.

### Measures

#### **Bully/Victim Questionnaire-Adapted (BVQ-A).**

To test the effect of the *Beyond the Hurt* program on the reported frequency of bullying-related behaviours, the English version of the Olweus Bully/Victim Questionnaire (BVQ) was adapted and employed (Olweus, 1986 & 1996). The BVQ is a validated, self-report questionnaire that surveys students’ experiences and attitudes towards bullying (Olweus, 2007; Solberg & Olweus, 2003). The BVQ and its adapted variants have been used in research on bullying for many years around the world (Baldry & Farrington, 2002; Black & Jackson, 2007; Rivers et al., 2009). The first section of the BVQ requests demographic information from the student, followed by the provision of an extensive definition and examples of bullying. The section that follows provides students with the opportunity to indicate the extent to which they have experienced and/or perpetrated bullying during the past two to three months. Students also are asked to report an estimate of the frequency with which they experienced and/or perpetrated bullying, the various locations in which the bullying took place, and examples of what bullying incidents took place.<sup>1</sup> The BVQ provides two global

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<sup>1</sup> Due to copyright restrictions, examples of the BVQ items and coding protocols cannot be provided. They are available by contacting the author, Dan Olweus (Olweus@uni.no).

scores that describe the frequency of the experience and perpetration of bullying, respectively. Coding protocols developed by Olweus for the BVQ (1996) were used to code the participant data.<sup>1</sup>

The BVQ has demonstrated good internal reliability and test-retest reliability with samples of over 5000 Norwegian students, although this research has not yet been published (Breivik, Olweus, & Olweus, 2015). At the individual item level, internal consistency reliability analyses have yielded Chronbach's alphas of .80 and higher, and even higher at the school level (Breivik, Olweus, & Olweus, 2015). In terms of validity, previous studies have demonstrated that the self-reported victimization and perpetration as quantified by the BVQ global scales are highly correlated with peer ratings of victimization and perpetration (correlations in the .60 to .70 range; Kyriakides, Kaloyirou, & Lindsay, 2006; Olweus, 1994). The construct validity of the questionnaire's measurement of frequency of victimization and perpetration also has been demonstrated in previous research (Bendixen & Olweus, 1999; Solberg & Olweus, 2003). For example, Solberg and Olweus (2003) found a positive association between: (a) the victimization global scale and three scales of internalizing problems, and (b) the perpetration global scale and two scales of externalizing problems. These associations are conceptually congruent with previous research and support the construct validity of the BVQ (for a review, see Baldry & Farrington, 2000; Hawker & Boulton, 2000; Kumpulainen et al., 1998; and Lagerspetz, Bjorkqvist, Berts, & King, 1982).

Several modifications were made to the BVQ for the purposes of the current study. The demographic section at the beginning of the BVQ was modified by the addition of questions about participants' country of birth, age, and language. The definition of bullying provided to students at the beginning of the survey was slightly altered to reflect the definition formulated for the proposed study. Specifically, we removed the requirement for a behaviour to be repetitive to be considered bullying, and the caveats pertaining to intentionality were explained in this definition. These changes in the definition likely would not invalidate any of the questions or response options of the BVQ. However, the broadened definition may make the BVQ more sensitive to a wider range of bullying incidents.

In addition to these changes, an item was added to assess the frequency of witnessing bullying. This item was designed to mirror the wording of the general frequency items for bullying perpetration and victimization. Lastly, given that the BVQ was originally designed to serve as a needs assessment tool for schools, there are many items that are not relevant for the proposed study. These items, which are not included in the global scales, were removed from the BVQ to shorten the survey. The adapted survey that will be used in the proposed study is referred to as the Bully/Victim Questionnaire -Adapted (BVQ-A).

#### **Level of Bullying Knowledge Index and Tolerance of Bullying Scale.**

The Level of Bullying Knowledge Index (L-Knowledge) and the Tolerance of Bullying Scale were developed for the current study. These scales were developed to explore students': (a) self-reported level of knowledge related to bullying and (b) tolerance of bullying as indicated by their reported behavioural responses to witnessing bullying. The *Beyond the Hurt* program seeks to increase students' level of knowledge related to bullying, including basic information such as types of bullying, effects of bullying, and school policies on bullying. The Level of Bullying Knowledge Index (Appendix A) explores participants' self-reported level of knowledge of a variety of these topics. Participants were asked to rate 16 items on a scale from 0 (*I know nothing*) to 4 (*I am an expert*) with regard to how familiar they were with a variety of topics related to bullying.

The *Beyond the Hurt* program also promotes the intolerance of bullying by encouraging the importance of appropriately responding to bullying incidents when they are witnessed. The Tolerance of Bullying Scale (Appendix B) includes: (a) 10 items reflecting prosocial behavioural responses to bullying (e.g., “Walked away to get help from a teacher or other adult in the school”), which make up the Bystander Intervention Index, and (b) 10 items that are considered non-prosocial or antisocial responses to bullying (e.g., “Laughed at and/or encouraged what I saw/heard”), which make up the Bystander Facilitation Index. Participants were asked to indicate which of the listed items they have done in response to witnessing bullying.

Each participant was asked to fill out both the Level of Bullying Knowledge Index and the Tolerance of Bullying Scale as part of their surveys. Because some of the items on the Tolerance of Bullying Scale may provide information that might influence participants’ responses on the Level of Bullying Knowledge Index, these surveys were always ordered such that the Tolerance of Bullying Scale strictly followed the Level of Bullying Knowledge Index. To maximize the content validity of both of these measures, their content was developed based on the *Beyond the Hurt* program curriculum (CRC, 2013) and were reviewed by RespectED management and a local school district superintendent. These two measures were specifically designed to provide supplementary information related to the validation and sensitivity hypotheses (Knudsen & Miller, 1991) and were used to aid in the interpretation of BVQ-A bullying frequency measures.

The internal reliabilities of both the Tolerance of Bullying Scale and the Level of Bullying Knowledge Index were examined. The two subscales of the Tolerance of Bullying Scale demonstrated good internal consistency; the Bystander Intervention Index of the Tolerance of Bullying Scale had acceptable internal consistency,  $\alpha = .78$ , and no items had sufficiently low reliability to require removal. All items were correlated to a moderate to high degree with the total Tolerance of Bullying scale (ranging from  $r = .28$  to  $r = .58$ ). The Bystander Facilitation Index of the Tolerance of Bullying Scale also appeared to have acceptable internal consistency,  $\alpha = .76$ ; All items from this subscale were correlated as expected with the total scale (ranging from  $r = .21$  to  $r = .54$ ).

The Level of Bullying Knowledge Index had excellent internal reliability ( $\alpha = .87$ ), but one item was removed on conceptual grounds. That is, although the other items asked about participants’ knowledge of bullying-related topics, this item asked about awareness of the *Beyond the Hurt* program specifically. Given that the intent of the scale was to measure bullying-related knowledge (rather than brand awareness), this item was removed. All other items were retained and the internal reliability remained excellent ( $\alpha = .87$ ).

### **Reactive-Proactive Aggression Questionnaire (RPQ).**

The RPQ, developed by Raine and colleagues (2006), is a self-report measure of reactive and proactive aggression. The measure includes 23 items rated on a three point Likert scale. It produces two subscale scores and a total aggression score. The RPQ items were generated using the conceptual and theoretical literature and previous (non-self-report) measures of proactive and reactive aggression (Raine, Dodge, Loeber, Gatzke-Kopp, Lynam, Reynolds, Stouthamer-Loeber & Liu, 2006). Each item reflects either physical or verbal aggression *and* motivation or context (e.g., “Had fights with others to show who was on top” or “Gotten angry when others threatened you”). Confirmatory factor analysis confirmed the presence of these two factors (Raine et al., 2006), and has been found in studies across cultures (Fossati, Raine, Borroni, Bizzozero, Volpi, Santalucia & Maffei, 2009). The RPQ has good psychometric properties, and has demonstrated expected



convergent validity with measures of hostility, impulsivity, externalizing, and psychopathy (Raine et al., 2006). All three scales of the RPQ are positively correlated with parental ratings of aggression and delinquency of the Aggression and Delinquency Scales of the Child Behaviour Checklist (Achenbach, 1978). The RPQ also demonstrates expected discriminant validity with a measure of non-externalizing behaviour problems (e.g., withdrawn, somatic complaints; Raine et al., 2006).

Both subscales and the total aggression scale have internal reliabilities ranging from .75 to .91 (Cima, Raine, Meesters, & Popma, 2013; Fossati et al. 2009; Fung, Raine, & Gao, 2009; Raine et al., 2006). The internal reliability of RPQ in the current study was .52 for the proactive aggression subscale, .78 for the reactive aggression subscale, and .81 for the overall aggression scale. The low reliability score for the proactive aggression subscale may have been the result of little variation in participant responses on this subscale (i.e., a floor effect was taking place). In addition, given the RPQ is typically used with adolescents and adults, individual items were examined for an appropriate reading level for the current sample of 11 and 12 year olds. Slight revisions of wording were made to accommodate the reading level of the current sample. For example, the statement “used force to obtain money or things from others” was changed to “forced others to give me money or things.” Another example includes changing the statement “made obscene phone calls for fun” to “made rude, sexual phone calls for fun.” The adapted RPQ (Appendix C) was administered at Time 2 and had acceptable internal reliabilities for all three scales following these adjustments, with .88 for the proactive scale, .81 for the reactive scale, and .87 for the overall aggression scale. The adjusted RPQ was used to test for possible moderating effects of perpetrator style of aggression on program outcomes.

#### **Adult Advisor Survey.**

The Adult Advisor Survey is a measure designed for the current study in consultation with the Canadian Red Cross Atlantic Zone RespectED Program Director (see Appendix D). The survey includes items designed to provide contextual information about the school and how *Beyond the Hurt* program was implemented in that school. The first part of the survey is called the Program Fidelity Checklist, which was designed to assess the extent to which the *Beyond the Hurt* program was implemented according to the criteria established by the Canadian Red Cross. It was developed based on the *Beyond the Hurt* curriculum, and was given only to the two experimental schools. The Adult Advisor Survey also includes several questions about other possible confounding variables, such as other anti-bullying initiatives in place in the school.

#### **Procedure and Study Design**

Grade six students who return signed consent forms and assented to participation were asked to complete a paper-and-pencil survey, which included the BVQ-A, the Tolerance of Bullying Scale (Bystander Intervention Index and Bystander Facilitation Index), the Level of Knowledge scale, and the RPQ. The first point of data collection was in January 2015, which asked participants about their experiences with bullying in last two to three months. Participants in the experimental schools then took part in the *Beyond the Hurt* program as they typically would, and the participants from the comparison school continued with their regular school programming (i.e., did not implement *Beyond the Hurt*). All participants were asked to complete the survey again in May 2015. An appointed staff liaison was asked to fill out the Adult Advisor Survey at this second point of data collection.

**Beyond the Hurt Implementation.** Personnel trained by the Canadian Red Cross, without the involvement of the researchers, implemented the *Beyond the Hurt* program in participating schools. Specifically, a Canadian Red Cross RespectED trainer provided an in-depth training to appointed school personnel (e.g., teachers, guidance counsellors), who were certified as “Prevention Educator Partners.” The Prevention Educator Partners were then qualified to annually train a group of ten students as “Youth Facilitators” and up to two staff as “Adult Advisors.” This involved an in-depth, two-day training. The Canadian Red Cross certified Youth Facilitators were then equipped with leadership and presentation-related skills in order to deliver workshops to their peers, with the support of the Adult Advisors.

The peer-led workshops are at the core of the *Beyond the Hurt* program. They use didactic teaching, discussion, role-plays, games, music, and perspective-taking activities to increase students’ understanding of bullying behaviours, impacts of bullying, and so on (CRC, 2013). The *Beyond the Hurt* program promotes using a multimodal approach to engage participants in desisting and/or standing up to bullying. For example, one approach involves introducing an empathic understanding of the impact of bullying by using video clips, music, story telling, and self-disclosure (CRC, 2013). A second approach involves the perpetuation of a school environment that has a standard of inclusivity and kindness (i.e., promoting the message that it is “cool” to be kind; CRC, 2013). This approach is emphasized through the unique peer-to-peer delivery method of the *Beyond the Hurt* program, which allows young people to advocate for change amongst themselves.

In New Brunswick, the *Beyond the Hurt* program is typically implemented on an annual basis in middle schools. Students take part in the Youth Facilitator training in Grade 7, and in Grade 8 they administer the peer workshops to their Grade 6 peers. All of the Grade 6 students receive the *Beyond the Hurt* peer workshops, which take place during class time and are part of their curriculum (S. Coy, personal communication, May 13, 2014). The current study will evaluate the impact of the peer workshops specifically, not the Youth Facilitator training.

**Confidentiality and Anonymity.** Data collected for the current study were strictly confidential. Participants were instructed not to put their name on any page of the questionnaire. When questionnaires were collected, a randomly generated identification number was assigned to each participant and written on his or her survey. This number and the participant’s name was recorded in a master list, which was used to match participant data from the pre-test and post-test. The master list containing participant names and identification numbers was kept in a secure location in the Centre for Criminal Justice Studies laboratory in a locked cabinet until the post-test data were collected. For the second administration, the same process took place except the identification number from the pre-test was reassigned to participants.

## Study Results

### Context of Bullying in Southern New Brunswick

At baseline, 42.9% of girls ( $n = 42$ ) and 34.7% of boys ( $n = 26$ ) in the current sample reported being bullied at least once in the past two to three months. A summary of the types of bullying experienced by girls and boys in the current sample are summarized in Table 2. The most commonly reported forms of bullying for both girls and boys were: (a) calling someone mean names, mocking, and/or hurtful teasing, and (b) purposely excluding or ignoring someone. For girls, the next most commonly reported type of bullying experienced was having rumours/lies spread about her, being bullied in a sexual way, being physically bullied, and having money or property stolen/damaged. For boys, the next type of bullying most reported was physical bullying, followed by the spreading of rumours/lies about them, sexual bullying, and being threatened or forced to do things.

In terms of bullying perpetration, only 9.2% of girls ( $n = 9$ ) and 18.7% of boys ( $n = 14$ ) reported bullying other students at least once in the past couple of months. A summary of the types of bullying perpetrated by girls and boys in the current sample are summarized in Table 3. The most commonly endorsed forms of bullying perpetration by both girls and boys were (a) purposely excluding/ignoring someone, and (b) calling someone mean names, mocking, and/or hurtful teasing. Boys were also more likely to endorse having hit, kicked, pushed, shoved, and/or otherwise physically bullied someone.

When participants were asked a general (global) question about how often they have experienced any type of bullying, only 6.4% ( $n = 11$ ) of the current sample reported being bullied at least once per week or more often. However, when they were asked how often they experienced a variety of specific bullying behaviours, 13.3% ( $n = 23$ ) of the sample reported experiencing at least one type of bullying once per week or more often. Overall, these trends and rates of bullying are comparable to rates reported in similar Canadian studies (Bentley & Li, 1995; Beran & Shapiro, 2005; Beran & Tutty, 2002), providing evidence of validity of participants' responses in the current study and the similarity of New Brunswick students experiences of bullying with other Canadian youth.

### Comparability of Experimental and Comparison Groups

The Adult Advisor Survey and Program Fidelity Checklist for each school were compared to examine possible confounding variables. No significant bullying-related events were reported by any of the schools (e.g., hazing, bullying-related suicide, etc.), and both of the experimental schools reported 100% fidelity to the *Beyond the Hurt* curriculum. Staff liaisons from all three schools reported that there were a variety of other bullying prevention initiatives taking place throughout the school year, such as anti-bullying assemblies, crisis line and support group posters, and positive peer messaging on the morning announcements. However, the comparison school adult liaison indicated that the students at that school received an alternative bullying prevention program, reinforcing its position as a comparison group (rather than a control group). The program that was offered at the comparison school is similar to *Beyond the Hurt* in the sense that they both seek to teach bystanders to take action, however this program includes less of a focus on empathy and peer message-delivery, and more of a focus on bullying-related problem solving (compared to *Beyond the Hurt*; WITS, n.d.).

The experimental and the comparison groups were compared on key contextual variables to ensure that these two groups were comparable at baseline (see Table 4). These groups did not significantly differ on reported frequency of bullying perpetration, frequency of witnessing bullying, level of bullying-related knowledge, and previous experience with the *Beyond the Hurt* program. The



experimental and comparison groups were, however, significantly different on one key variable. An Analysis of Variance (ANOVA) demonstrated that there were significant differences in the reported frequency of victimization by school,  $F(2, 170) = 4.437, p = .013$  (see Graph 1). Follow-up analyses using the Scheffé post hoc criterion for significance indicated that the average rate of bullying victimization was significantly higher in the comparison group ( $M = 2.11, SD = .17$ ) than the first experimental group ( $M = 1.53, SD = .106, p = .018$ , and the second experimental group ( $M = 1.58, SD = .11, p = .035$ ). The two experimental groups were not significantly different on this variable,  $p = .946$ .

Due to the difference in baseline frequency of victimization between the experimental and comparison groups, victimization frequency was included as a covariate in all analyses. Additionally, due to the statistical similarity between them, data from the two experimental groups were amalgamated to increase the power and variability within the *Beyond the Hurt* group. This resulted in *one* experimental group that received the *Beyond the Hurt* program between the first and second point of data collection and one comparison group that did not (but rather received an alternative program).

### Overall Program Impact Analyses

The frequency of victimization at baseline was previously identified as being significantly different between the experimental and comparison groups; therefore, it was analyzed independently and included as a covariate in all subsequent analyses. Data were checked for violations of assumptions prior to analyses, and significant outliers and non-normal data were found. The most extreme outliers were modified using a statistical technique called “Winzorising,” such that their data points were reduced to be one data point above the next highest score (Dixon & Yuen, 1974). This technique is used to reduce the impact of an atypical response pattern, whilst maintaining the participant’s rank order as the highest scoring participant on a given variable (Dixon & Yuen, 1974; Field, 2009). No further adjustments or modifications were made to these data.

### Program Effects on Rates of Victimization, Perpetration, and Witnessing.

A mixed measures ANOVA was conducted to determine whether there was a change in the reported frequency of bullying victimization from baseline to post-testing (see Graph 2). Group type (experimental or comparison) was included as a between-subjects variable to compare changes from the *Beyond the Hurt* program to the other bullying prevention efforts. This analysis revealed no significant changes in reported frequency of victimization as a function of time,  $F(1, 147) = .03, p = .86, \eta^2 = .00$ , nor was there a significant interaction between time and group type,  $F(1, 147) = .86, p = .36, \eta^2 = .01$ . Group type itself, as previously noted, did have a significant main effect ( $F(1, 147) = 3.83, p = .05, \eta^2 = .03$ ), such that overall reported victim frequency was higher in the comparison group than the experimental group (i.e., the comparison group was somewhat more likely to report experiencing bullying once or twice, whereas the experimental group was somewhat more likely to report having never experienced bullying;  $M = 2.00, SD = .16$  and  $M = 1.65, SD = .07$  respectively).

A mixed Multivariate Analysis of Covariance (MANCOVA) was also conducted to determine whether any changes in reported frequency of perpetration and witnessing of bullying occurred over time, and group type was again included as the between-subjects variable (see Graph 2). This analysis revealed that there also was no significant effect of time on the reported frequency of perpetration and witnessing bullying (Pillai’s Trace = .02,  $F(2, 144) = 1.32, p = .27, \eta^2 = .02$ ), nor was there a significant interaction between time and group type,  $V = .03, F(2, 144) = 1.92, p = .15$ ,

$\eta^2 = .03$ . Notably, the low mean frequencies across all groups has likely resulted in a floor effect, making it difficult to identify changes in the overall sample.

Given the low base rate of bullying victimization and perpetration in the present sample, program impact analyses were also conducted using the data from only those participants who were identified as vulnerable to experiences of bullying (see Graph 3). Specifically, those participants who reported perpetrating or experiencing bullying at least once in the last two to three months at baseline were identified as outliers and considered “vulnerable youth” for the purpose of this evaluation. When data were restricted to only include input from vulnerable youth for these analyses, the cell sizes for the comparison group were very small (i.e., very few participants from the comparison group reported being involved in bullying at baseline). Therefore, for the sake of maximizing statistical power, these analyses were conducted only using data from the two experimental schools ( $n = 126$ ). In addition, these analyses were conducted using the original data (i.e., outliers were not Winsorized). Notably, a mixed ANOVA revealed a significant reduction in reported frequency of victimization as a function of time (Time 1  $M = 2.82$ ,  $SD = .16$ ; Time 2  $M = 2.39$ ,  $SD = .17$ ;  $F(1, 43) = 5.83$ ,  $p = .02$ ,  $\eta^2 = .12$ ). Similarly, there was a significant reduction in perpetration as a function of time for the subsample of youth who reported bullying others at least once in the past two to three months at baseline (Time 1  $M = 2.13$ ,  $SD = .35$ ; Time 2  $M = 1.40$ ,  $SD = .63$ ;  $F(1, 14) = 16.29$ ,  $p = .001$ ,  $\eta^2 = .54$ ).

#### **Effects on Level of Knowledge and Bystander Response.**

An additional mixed MANCOVA assessed changes in bullying awareness and bystander responses to bullying using the Level of Bullying Knowledge Index, the Bystander Facilitation Index, and the Bystander Intervention Index as dependent measures (see Graphs 4 and 5). This analysis found no significant effect of time on these variables (Pillai's Trace = .02,  $F(2, 127) = 0.76$ ,  $p = .52$ ,  $\eta^2 = .02$ ), nor was there a significant interaction between time and group type (Pillai's Trace = .02,  $F(2, 127) = 0.65$ ,  $p = .59$ ,  $\eta^2 = .02$ ). This analysis was also conducted for vulnerable youth specifically, similarly finding no significant effect of time (Pillai's Trace = .06,  $F(2, 41) = .84$ ,  $p = .48$ ,  $\eta^2 = .06$ ).

#### **Perpetrator Style of Aggression.**

Analyses were conducted to examine: (a) the role of perpetrator style of aggression in bullying perpetration, and (b) the impact of the *Beyond the Hurt* program on those participants who were either high or low on reactive and/or proactive aggression, as measured by the subscales of the Reactive-Proactive Aggression Questionnaire (RPQ; Raine et al., 2006). A hierarchical multiple regression analysis examined perpetrator gender, reactive aggression, and proactive aggression as predictors of bullying perpetration (as measured by the BVQ-A; see Graph 6). Given the poor internal reliability of the RPQ at Time 1, only Time 2 data were used for this cross-sectional analysis. Block 1, containing perpetrator gender, was not significantly predictive of bullying perpetration,  $R^2_{cb} = .01$ ,  $F_{cb}(1, 140) = 1.04$ ,  $p = .31$ . The reactive and proactive subscales of the RPQ were included in Block 2, and significantly explained 23% of the variance in perpetration of bullying,  $R^2_{cb} = .48$ ,  $F_{cb}(2, 138) = 19.99$ ,  $p < .001$ , with significant unique contributions being made by both the reactive subscale ( $\beta = .24$ ,  $t = 2.74$ ,  $p = .007$ ) and the proactive subscale ( $\beta = .31$ ,  $t = 3.52$ ,  $p = .001$ ). Thus, youth with higher levels of reactive aggression and proactive aggression also reported higher levels of bullying perpetration. Block 3 included a proactive by reactive aggression interaction term, which was not significantly predictive of bullying perpetration,  $R^2_{cb} = .48$ ,  $F_{cb}(1, 137) = 0.04$ ,  $p = .84$ .

Given the fact that both reactive and proactive aggression uniquely contribute to explaining the variance in bullying perpetration, they were included as moderators in an analysis examining effects

of the *Beyond the Hurt* program on perpetration of bullying over time. For the purpose of this analysis, both the reactive and the proactive scales were recoded into dichotomous variables. Participants were coded as either high ( $> 50^{\text{th}}$  percentile) or low ( $< 50^{\text{th}}$  percentile) in proactive and reactive aggression. A mixed ANOVA was conducted using the full sample with outliers included. As expected given the previous regression results, there were significant main effects for both reactive aggression,  $F(1, 139) = 38.29, p < .001, \eta^2 = .22$ , and proactive aggression,  $F(1, 139) = 33.04, p < .001, \eta^2 = .19$ . For both the reactive and proactive subscales, higher levels of aggression were related to higher rates of bullying perpetration. There was no significant interaction effect of reactive aggression by time on perpetration,  $F(1, 139) = 2.68, p = 0.10, \eta^2 = .02$ . There was, however, a significant interaction effect of proactive aggression by time for perpetration,  $F(1, 139) = 4.93, p = .03, \eta^2 = .03$ , such that there was a significant decrease in bullying perpetration from Time 1 to Time 2, but only for the high proactive group. A significant decrease in bullying was likely not found for the low proactively aggressive youth due to low base rate (i.e., floor effect).

## Discussion and Conclusion

The present study evaluated the effect of a bullying prevention program intended to reduce bullying through peer-led anti-bullying (awareness) initiatives in Canadian schools. The program, called *Beyond the Hurt*, was developed by the Canadian Red Cross and is currently implemented in about 80% of New Brunswick schools (CRC, 2013). Existing research and theory developed by Knudsen and Miller (1991) was used to inform the hypotheses for the current study. Specifically, it was posited that if an increase in bullying incidence is found, along with higher awareness, then these data would support sensitivity and validation hypotheses a represent a positive program impact. Similarly, if no change in bullying incidence is found, along with unchanged high levels of awareness, then these data would support the sensitivity and validation hypotheses through a neutral program impact. If decreases in bullying incidence are found, with an increase in tolerance and knowledge, then it would be interpreted as a positive program effect with direct reduction outcomes (i.e., not supporting the sensitivity and validation hypotheses). Finally, if increased bullying incidence is found, along with lower levels of bullying awareness, then this finding would be interpreted as reflecting a potential negative program impact on bullying.

### Overall Program Impact

In terms of general bullying experiences, one third of the sample reported being bullied at least once in the past two to three months at baseline. For both boys and girls, the most common types of bullying experienced were being called names, mocked, teased in a hurtful way, and being socially excluded. About 1 in 10 girls and 1 in 5 boys reported bullying another student in the past two to three months, most commonly by purposely ignoring or excluding someone, or by naming calling, mocking, and/or teasing someone in a hurtful way. These results are comparable to the rates that have been found in other recent Canadian samples (Baldry & Farrington, 2004; Beran & Shapiro, 2005), despite the broader definition of bullying that was employed in the present study. It is possible that participants did not read or fully process the newly introduced definition of bullying at the start of the survey, responding to the survey items using previously learned definitions of bullying. Future research seeking to expand or challenge the definition of bullying should include a brief didactic session before administering questionnaires that explains the definition of bullying and provides examples of behaviours that would and would not meet the definition.

Both the experimental and comparison groups demonstrated high levels of bullying knowledge and intolerance prior to the implementation of the bullying prevention programs, and this was maintained after the four-month intervention period. Given the high level of bullying awareness, the alternative hypothesis was considered for the purposes of the current evaluation. The results supported this hypothesis, such that there was no significant change in bullying perpetration, victimization, or witnessing after the four-month follow up period, and there were no differences based on the school condition (i.e., experimental versus comparison schools). Similarly, there was no change detected in bystander behavioural responses to bullying and reported level of bullying-related knowledge, nor were there significant interactions based on school condition. The lack of difference found between the comparison and experimental schools on most of these measures may be due to the fact that an alternative anti-bullying program was implemented in the comparison school during the same year these data were collected. However, this possible effect is complicated by the fact that many of the participants from the experimental schools reported having taken that same program in a previous grade. It is not possible to determine the extent of the effect that experience with other bullying prevention programming had, and future studies should seek to control for exposure to alternative programming in their sample of schools.

### **Program Impact on Vulnerable Youth**

Overall, there were low rates of bullying perpetration, victimization, and witnessing at baseline and post-intervention period for both the experimental and comparison groups, suggesting that there was a floor effect taking place. Floor effects limit the ability of the analyses to detect changes in those youth who are vulnerable to bullying perpetration and victimization because their effects are washed out by the larger sample. That is, it makes sense that no significant decreases in bullying will be found when the majority of participants in a sample report never having experienced bullying.

Given the identified floor effects in bullying, the impact of the *Beyond the Hurt* program was re-examined using only those participants who reported having been bullied or having bullied another student at least once in the past two to three months at baseline. These results demonstrated that there was a significant reduction in both reported victimization and perpetration of bullying after the *Beyond the Hurt* program implementation for the youth most vulnerable to bullying experiences. This finding suggests that *Beyond the Hurt* was able to influence change for vulnerable youth, despite the high baseline rates of bullying knowledge and intolerance, and the short term follow-up period. Unfortunately, there were too few participants who reported having experiences of bullying from the comparison school to draw a statistical comparison with the experimental group. Future program evaluations should seek to use sample sizes that are large enough to account for the low base rate of bullying behaviours in order to compare the effectiveness of different bullying prevention programs. In addition, future research should selectively study vulnerable youth who may otherwise get lost or under-represented in larger data sets.

### **Impact of Question Type on Bullying Rates**

When students were asked a single general question about the frequency of experiencing bullying, only about 6% of the sample reported being bullied once a week or more often. However, when asked about specific types of victimization, this frequency increased to 13% of the sample endorsed being bullied frequently. Similar results have been found in other Canadian research (Baldry & Farrington, 2004; Bentley & Li, 1995; Beran & Shapiro, 2005; Beran & Tutty, 2002), suggesting that youth who are victims of frequent bullying may not subjectively perceive their experience as such. For example, they may report that other students frequently spread rumours and lies about them,

but do not necessarily consider themselves as having been bullied. The discrepancy between perceived and experienced victimization suggests that youth who are targeted may not always understand the mistreatment as bullying.

Interestingly, the same reporting discrepancy is not found for perpetrators of bullying. That is, only about 7.0% of participants reported bullying other students at least once per week or more often when asked a single general question. When asked about specific types of behaviours, the rate of reported bullying was fairly similar (7.5%). This lack of discrepancy between perceived and experienced perpetration suggests youth who are perpetrators *are* aware that their actions are considered bullying. One possible interpretation of this finding is that a lack of awareness is not the problem leading to bullying, which has implications for interventions designed for youth who perpetrate bullying. Instead of focusing intervention efforts on education and raising awareness, interventions directed at perpetrators of bullying should focus on empirically-identified treatment targets.

Insight regarding bullying prevention programming can come from literature on aggression and antisocial behaviour. For example, there is an abundance of research highlighting the value of using interventions for aggression that follow the risk-need-responsivity (RNR) model for supervision and rehabilitation (Andrews & Bonta, 2010; Loesel, 1995; Ward, Melser, & Yates, 2007). Bullying interventions following an RNR approach would include: (a) more intense interventions offered to students who are at highest risk of perpetrating bullying (i.e., the risk principle); (b) treatment to target only those factors that are empirically associated with reductions in bullying (i.e., the needs principle); and (c) consideration for individual characteristics that may affect their response to treatment (e.g., learning style; i.e., the responsivity principle; Bonta & Andrews, 2007). Future research should seek to identify bullying-specific risk factors in order to inform the development of RNR-guided intervention programs for this form of aggressive behaviour.

### **Bullying and Perpetrator Style of Aggression**

To guide potential bullying intervention targets, trends in perpetration of bullying were examined in terms of perpetrator style of aggression. Our results indicated that reactive and proactive aggression significantly predicted bullying perpetration, and each contributed uniquely to this prediction. For both proactive and reactive styles, higher levels of overall aggression tendencies were related to higher rates of bullying perpetration. However, it was the proactive aggression subscale of the RPQ that explained somewhat more of the variation in bullying perpetration. These findings are consistent with previous research findings (Camodeca, Goossens, Terwogt, & Schuengel, 2002; Calvete, Orgue, Estevez, Villardon, & Padilla, 2010). Unfortunately, previous research has largely overlooked the possible moderating effects of reactive and proactive aggression on the impact of bullying prevention programs (Burton, Florell, & Gore, 2013).

It was hypothesized that motivational and contextual differences in reactive and proactive aggression would contribute to differential program impacts, such that the program would be effective for those who are primarily proactive aggressive but not for those who are primarily reactive aggressive. The supported these hypotheses. A reduction in bullying perpetration was not found over time for youth who were classified at baseline as falling in the high reactive aggression category. There was, on the other hand, a significant reduction in bullying perpetration for youth who were high in proactive aggression. Given that proactive aggression is more goal- or reward- oriented (Price & Dodge, 1989), one possible explanation is that the peer-to-peer delivery format of the *Beyond the Hurt*



program created built in social-rewards and punishments that deterred bullying in this group. Where these youth may have previously gained social status or other rewards by perpetrating bullying against their peers, proactively aggressive youth may have diminished opportunities for secondary gain through bullying as the school environment shifts and their peers become the conduits of the anti-bullying messaging. Reactively aggressive youth would likely benefit more from an intervention program than a prevention program as their needs are quite complex (Merk et al., 2005). However, prevention programs can contribute to addressing their needs by targeting empirically identified areas of skill deficits, such as social skills, anger management skills, and problem-solving skills (Merk et al, 2005). These analyses could not be conducted for the comparison school as there were not enough students endorsing reactive and proactive aggressive behaviours. Future research should explore this area further, examining program effects for highly proactively aggressive youth whilst comparing bullying prevention programs with peer- versus teacher-delivery approaches.

### **Strengths and Limitations of Current Study**

There are several strengths and limitations with the present study that researchers in the future should consider. The prospective design allowed for the study of many possible program outcomes, and the use of self-report data provided important information about bullying as perceived by the participants. In addition, both perception and actual experience of bullying were measured, the comparison of which allowed for a deeper understanding of how perpetrators and victims of bullying perceive their experience and identifying potential treatment targets. Finally, the current sample included a variety of both male and female participants who were demographically representative of the school district and communities they were drawn from.

In terms of limitations, a short term follow-up period was used in the current study due to logistical parameters. In many intervention studies, it can take months or years of program implementation before the effects of the intervention can be detected, therefore long term follow-up periods are considered best practice. However, significant effects were still detected in the present study, although the long term effects remain unknown. Another limitation involved the use of a convenience sample rather than randomly selected schools, which was also not possible due to logistical restraints. In addition, it was not possible to use a 'pure' control group in this study, as with most research of this type. That is, it is often considered unethical to leave students out of bullying programming (Salmivalli, 2001). We were able to include a waitlist comparison group, but it was impossible to control for ongoing anti-bullying work being done at that school. Finally, we did not collect any information about student's past bullying experiences other than during the past 2-3 months, so we are unable to determine if historical experiences moderate the effect of the program.

### **Conclusion**

Every child has the right to feel safe at home, at school and in the community (UN Convention on the Rights of the Child, 1990), and the implementation of bullying prevention programs in Canadian schools is a step towards this goal. Given the sparse economic resources allocated to school programs, it is important that bullying prevention programs continue to be evaluated so that school officials can make sound, evidence-based decisions about program implementation. The present study provides support for the *Beyond the Hurt* program, finding that youth most vulnerable to bullying reported significant short-term decreases in their experiences of bullying perpetration and victimization after receiving the program. These results also increase how the differential motivates and needs of youth who engage in reactive and proactive aggression can be understood in the context of bullying prevention programming. Using a prevention strategy that decreases social rewards for bullying may highlight the effectiveness of the program with youth who engage in

proactive bullying, such as the peer-to-peer delivery method of the *Beyond the Hurt* program. Youth who engage in primarily in reactive aggression, on the other hand, likely need more intensive services than a primary prevention program can offer, requiring secondary and tertiary prevention and intervention.

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## Appendix A

### Level of Bullying Knowledge Index

**INSTRUCTIONS:** On a scale from 0 (*I know nothing*) to 4 (*I am an expert*), rate how much you think you know about each of the following topics. Circle the number that best fits your answer.

		I know nothing.	I know some.	I am an expert.
41 a	What is bullying?	0—1—2—3—4		
41 b	What are the four types of bullying?	0—1—2—3—4		
41 c	What role does power play in bullying?	0—1—2—3—4		
41 d	How is bullying different from harassment?	0—1—2—3—4		
41 e	What are good, safe ways to intervene (step in) when bullying takes place?	0—1—2—3—4		
41 f	What are the impacts/effects of bullying on <b>the person who is bullied?</b>	0—1—2—3—4		
41 g	What are the impacts/effects of bullying on <b>the person who bullies others?</b>	0—1—2—3—4		
41 h	What are the impacts/effects of bullying <b>on the people who witness the bullying (the bystanders)?</b>	0—1—2—3—4		
41 i	What are the school policies/rules about bullying?	0—1—2—3—4		
41 j	How can you keep bullying from happening?	0—1—2—3—4		
41 k	What is a healthy school like?	0—1—2—3—4		
41 l	How can I report bullying when I see it?	0—1—2—3—4		
41 m	How is bullying different from teasing?	0—1—2—3—4		
41 n	How can you make a difference when it comes to bullying?	0—1—2—3—4		
41 o	Where can someone get help if they are being bullied?	0—1—2—3—4		
41 p	What is “Beyond the Hurt” or “RespectED”?	0—1—2—3—4		

## Appendix B

### Tolerance of Bullying Scale

INSTRUCTIONS: Put an X in the empty boxes for any of the following things that you have done after witnessing (seeing) bullying in the past couple of months:		X
42 a	Walked away and got help from a teacher or other adult at school (e.g., principal, nurse, custodian, coach, counsellor, psychologist).	
42 b	Walked away, but did not get help from a teacher or other adult.	
42 c	Laughed at/encouraged the bullying.	
42 d	Took part in the bullying.	
42 e	Did nothing at the time, but later reported it to a teacher or other adult.	
42 f	Did nothing at the time, but later talked to <b>the person who was bullied</b> to see if they were OK.	
42 g	Did nothing at the time, but later gossiped about the bullying with other students.	
42 h	Tried to step in the way of <b>the person doing the bullying</b> .	
42 i	Asked <b>the person who was bullying</b> about why they bullied someone.	
42 j	Told <b>the person who was bullying</b> to stop or told them that they were doing something wrong.	
42 k	Said or did something to try to cause a distraction in order to stop the bullying (e.g., " <i>Hey, John. Let's get out here and get lunch.</i> ")	
42 l	Made a joke or mean comment about <b>the person(s) who was bullying</b> to make them stop.	
42m	Ignored the bullying I saw online, but <b>did not</b> report it to an adult or authority.	
42 n	Liked, shared, or otherwise took part in the bullying I saw online.	
42 o	Reported or "flagged" the bullying I saw/read online.	
42 p	Asked friends to help me stop the bullying.	
42 q	Pretended the bullying was not happening to avoid getting involved.	
42 r	Went along with the rumours, name-calling, and/or mean talk, but only when <b>the person who was being bullied</b> was not there to hear it.	
42 s	Reported the bullying at school anonymously (secretly).	
42 t	Stayed out of it and chose not to give an opinion.	
42 u	I did something else (specify): _____	

## Appendix C

### Reactive-Proactive Aggression Questionnaire-Adapted

**INSTRUCTIONS:** There are times when most of us feel angry, or have done things we should not have done. Rate each of the items below by putting a circle around 0 (never), 1 (sometimes), or 2 (often). Do not spend a lot of time thinking about the items—just give your first response. Make sure you answer all the items.

<i>How often have you...</i>	NEVER	SOMETIMES	OFTEN
1. Yelled at others when they have annoyed you.	0	1	2
2. Had fights with others to show them who is the boss.	0	1	2
3. Reacted angrily when other people bothered me.	0	1	2
4. Taken things from other students.	0	1	2
5. Gotten angry when frustrated.	0	1	2
6. Broke or damaged something for fun.	0	1	2
7. Had temper tantrums.	0	1	2
8. Broke or damaged things because you felt mad.	0	1	2
9. Had a gang/group fight to be cool.	0	1	2
10. Hurt others to win a game.	0	1	2
11. Became angry or mad when you didn't get your way.	0	1	2
12. Used physical force (examples: pushed/shoved/hit) to get others to do what you want.	0	1	2
13. Gotten angry or mad when you lost a game.	0	1	2
14. Gotten angry when others threatened you.	0	1	2
15. Forced others to give me money or things.	0	1	2
16. Felt better after hitting or yelling at someone.	0	1	2
17. Threatened and bullied someone.	0	1	2
18. Made rude, sexual phone calls for fun.	0	1	2
19. Hit others to defend/protect yourself.	0	1	2
20. Gotten others to gang up on someone else.	0	1	2
21. Carried a weapon to use in a fight.	0	1	2
22. Got angry/mad or hit others when they teased you.	0	1	2
23. Yelled at others so they would do things for you	0	1	2

## Appendix D

### Adult Advisor Survey

**Please answer the following questions to the best of your ability. If necessary, please consult with other staff members at your school to confirm.**

1. List all of the anti-bullying initiatives that took place at your school between September 2014 and February 2015 **other than** those that were initiated, affiliated, or implemented by the RespectED Beyond the Hurt group.

*Examples: a Pink Shirt Day implemented by the student counsel, one anti-bullying video presented by the principle at an assembly, two lunch time awareness events hosted by the school's GSA, one anti-bullying skit put on by the drama club.*

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2. How many years has the *RespectED Beyond the Hurt* program been implemented at your school?

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3. Did any serious or noteworthy acts of bullying occur at your school this year that were addressed with the entire school? Please list and briefly explain.

*Examples: "an assembly was held in September to address hazing that was taking place and three suspensions were issued" or "in November a student reported being targeted on Facebook involving racial slurs and threats, announcements were made to the school that this was unacceptable and the perpetrators were being formally reprimanded."*

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4. Is there anything else you think we should know about your school?

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### Program Fidelity Checklist

Please indicate which of the following are true about the *RespectED Beyond the Hurt* group at your school this year by *checking* the appropriate boxes. You may leave comments below items as you see fit.

<input type="checkbox"/>	Did at least two BTH workshops led by Youth Facilitators. <i>Comments:</i> _____
<input type="checkbox"/>	Youth Facilitators received certification from the Canadian Red Cross and/or a trained and certified affiliate ("Prevention Educator"). This involved an extensive 2-day training on bullying. <i>Comments:</i> _____
<input type="checkbox"/>	Youth Facilitators were adequately prepared to deliver workshops ( <i>including (a) initial training, (b) refreshers/practice as needed, and (c) updated information (if applicable)</i> ), and demonstrated an understanding of the program activities, information, and other material. <i>Comments:</i> _____
<input type="checkbox"/>	Youth Facilitators were in charge of planning and preparing the BTH workshops. <i>Comments:</i> _____
<input type="checkbox"/>	There were at least 2 Youth Facilitators leading each BTH workshop. <i>Comments:</i> _____
<input type="checkbox"/>	Workshops addressed all of the following topics: (1) bullying and harassment, (2) strategies for responding, (3) the impact of bullying, (4) where to get help, and (5) how to take action to create healthy relationships and healthy schools. <i>Comments:</i> _____
<input type="checkbox"/>	Workshops were participatory in nature, involving a variety of interactive activities. <i>Comments:</i> _____
<input type="checkbox"/>	Workshops were presented with a classroom teacher or BTH Adult Advisor in attendance at all times. <i>Comments:</i> _____
<input type="checkbox"/>	Workshops covered all three hours worth of material (either in one three hour workshop or multiple shorter workshops). <i>Comments:</i> _____



**Table 1**  
**Sample Characteristics by Group Context**

Variable	Exp. 1 % (n)	Exp. 2 % (n)	Comp. % (n)	Total % (n)
Gender				
Male	48.6 (36)	40.8 (29)	35.7 (10)	43.3 (75)
Female	51.4 (38)	59.2 (42)	64.3 (18)	56.6 (98)
Other	0 (0)	0 (0)	0 (0)	0 (0)
Country of Origin <sup>+</sup>				
Canada	93.3 (56)	97.0 (64)	100 (23)	96.0 (143)
Other	6.7 (4)	3.0 (2)	0 (0)	4.0 (6)
Age <sup>+</sup>				
11 Years Old	55 (33)	48.5 (32)	43.5 (10)	50.3 (75)
12 Years Old	45 (27)	50 (33)	56.5 (13)	49.9 (73)
13 Years Old	0 (0)	1.5 (1)	0 (0)	0.6 (1)

*Note:* Exp.1 and 2 = Experimental groups (i.e., received the *Beyond the Hurt* program). Comp. = Comparison group (i.e., did not receive the *Beyond the Hurt* program). + = only available at Time 2 data collection. There were no significant group differences on any characteristic variables at  $p \leq .05$ .

**Table 2****Victim Experiences of Bullying at Baseline for the Overall Sample by Gender**

Type of Bullying	% of Females ( <i>n</i> = 98)	% of Males ( <i>n</i> = 75)	% Total Sample ( <i>n</i> = 173)
• Called names, mocked, hurtful teasing.	47.9 (47)	42.7 (32)	45.7 (79)
• Purposely excluded or ignored.	46.9 (46)	30.7 (23)	39.9 (69)
• False rumours and lies about them.	31.6 (31)	22.7 (17)	27.7 (48)
• Bullied with mean names, comments or gestures of sexual nature.	20.4 (20)	20.0 (15)	20.2 (35)
• Hit, kicked, shoved, or other physical bullying.	16.3 (16)	25.3 (19)	20.0 (35)
• Money or property taken or damaged.	14.3 (14)	14.7 (11)	14.5 (25)
• Threatened or forced to do things against their will.	10.2 (10)	18.7 (14)	13.9 (24)
• Bullied with mean names or comments about their race.	10.2 (10)	10.7 (8)	10.4 (18)
• Bullied with mean/hurtful messages, calls, or pictures online or on cellphone.	12.2 (12)	8.0 (6)	10.4 (18)

*Note:* No statically significant differences by gender,  $p > .05$ .

**Table 3****Types of Bullying Perpetrated at Baseline for the Overall Sample by Perpetrator Gender**

Type of Bullying	% of Females ( <i>n</i> = 98)	% of Males ( <i>n</i> = 75)	% Total Sample ( <i>n</i> = 173)
• Purposely excluded or ignored.	9.2 (9)	8.0 (6)	8.7 (15)
• Called names, mocked, hurtful teasing.*	3.1 (3)	12.0 (9)	6.9 (12)
• Hit, kicked, shoved, or other physical bullying.*	1.0 (1)	8.0 (6)	4.0 (7)
• Bullied with mean names or comments about their race.	1.0 (1)	4.0 (3)	2.3 (4)
• Bullied with mean names, comments or gestures of sexual nature.	1.0 (1)	1.3 (1)	1.2 (2)
• Bullied with mean/hurtful messages, calls, or pictures online or on cellphone.	1.0 (1)	1.3 (1)	1.2 (2)
• Money or property taken or damaged.	0.0 (0)	1.3 (1)	0.1 (1)
• Threatened or forced to do things against their will.	0.0 (0)	1.3 (1)	0.1 (1)
• False rumours and lies about them.	0.0 (0)	1.3 (1)	0.1 (1)

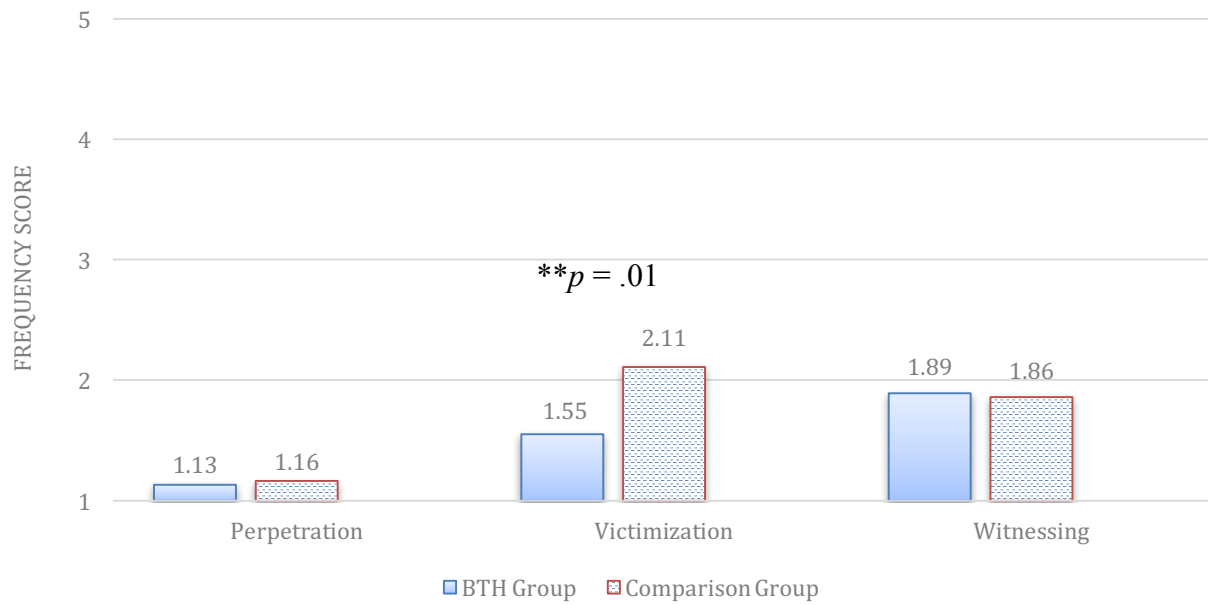
*Note:* Statistically significant differences by gender notated with \* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .

**Table 4**  
**Baseline Descriptive Statistics for Bullying Experience as a Function of Participant Group Context**

Variable	Group	<i>M (SD)</i>	F-value	$\eta^2$	df
Frequency of Perpetration	<i>Exp. 1</i>	1.10 (.38)	2.988	.034	2, 173
	<i>Exp. 2</i>	1.15 (.36)			
	<i>Comp.</i>	1.16 (.42)			
Frequency of Victimization	<i>Exp. 1</i>	1.53 (.11)	4.437*	.050	2, 173
	<i>Exp. 2</i>	1.58 (.11) <sup>a</sup>			
	<i>Comp.</i>	2.11 (.17) <sup>b</sup>			
Frequency of Witnessing	<i>Exp. 1</i>	1.75 (.80) <sup>a</sup>	1.838	.021	2, 173
	<i>Exp. 2</i>	2.03 (1.03)			
	<i>Comp.</i>	1.86 (.71)			
Bullying-Related Knowledge Score	<i>Exp. 1</i>	40.41 (11.48)	1.016	.012	2, 173
	<i>Exp. 2</i>	40.03 (11.80)			
	<i>Comp.</i>	43.46 (7.86)			
Previous Exposure to BTH Program	<i>Exp. 1</i>	2.30 (.57)	1.740	.020	2, 173
	<i>Exp. 2</i>	2.30 (.57)			
	<i>Comp.</i>	2.07 (.66)			

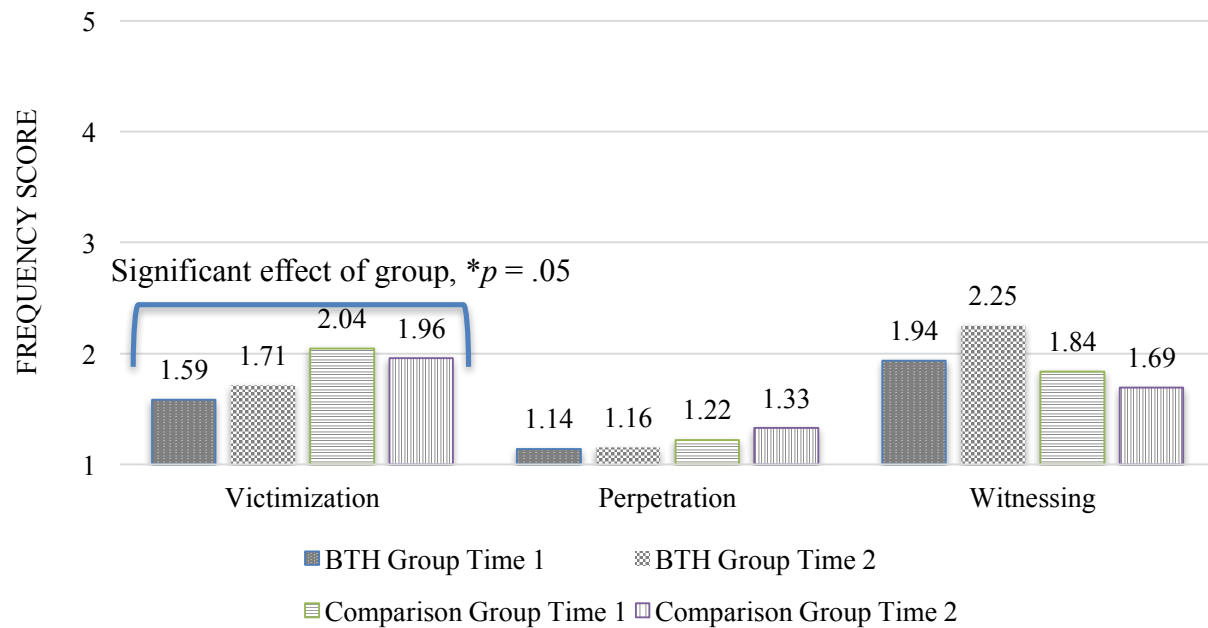
*Note.* Exp.1 and 2 = Experimental Groups (i.e., received the *Beyond the Hurt* program). Comp. = Comparison Group. “a” = not significantly different. “b” = significantly different.

\* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .



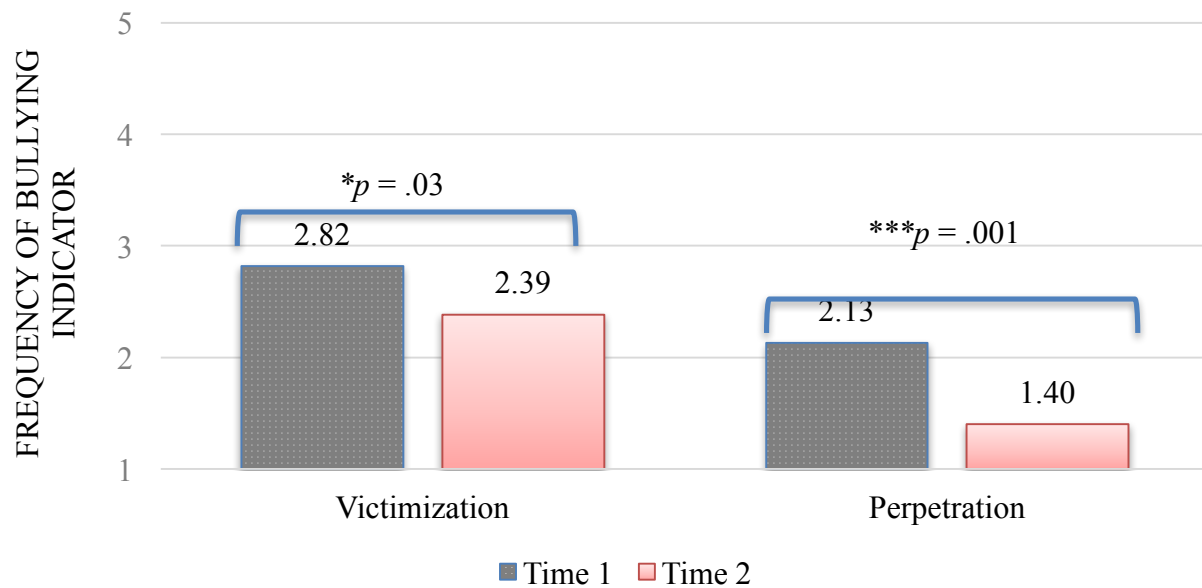
*Note.* Frequency scores: 1 = I have not experienced this at all in the last 2-3 months; 2 = It has only happened once or twice; 3 = Two or three times a month; 4 = about once a week; 5 = several times a week.  $*p \leq .05$ .  $**p \leq .01$ .  $***p \leq .001$ .

**Figure 1. Mean frequency of bullying experiences at baseline.**



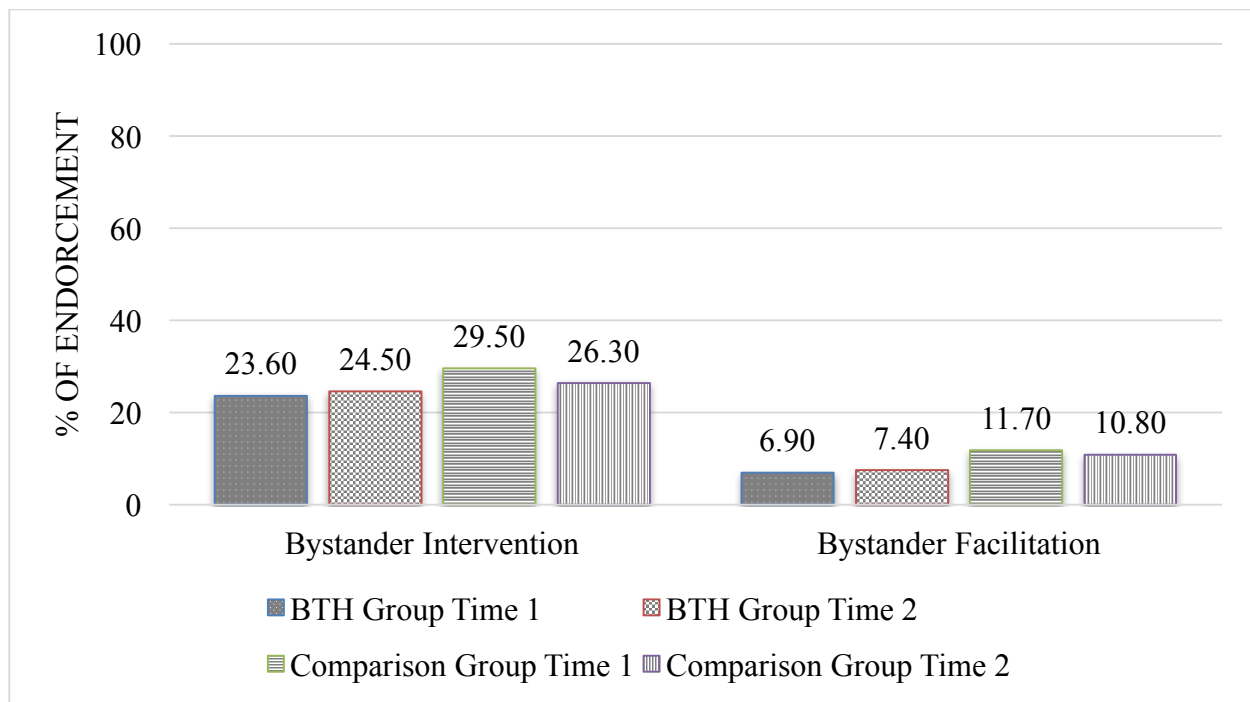
*Note.* Frequency scores: 1 = I have not experienced this at all in the last 2-3 months; 2 = It has only happened once or twice; 3 = Two or three times a month; 4 = about once a week; 5 = several times a week.  $*p \leq .05$ .  $**p \leq .01$ .  $***p \leq .001$ .

**Figure 2. Victimization, perpetration, and witnessing outcomes by group context.**



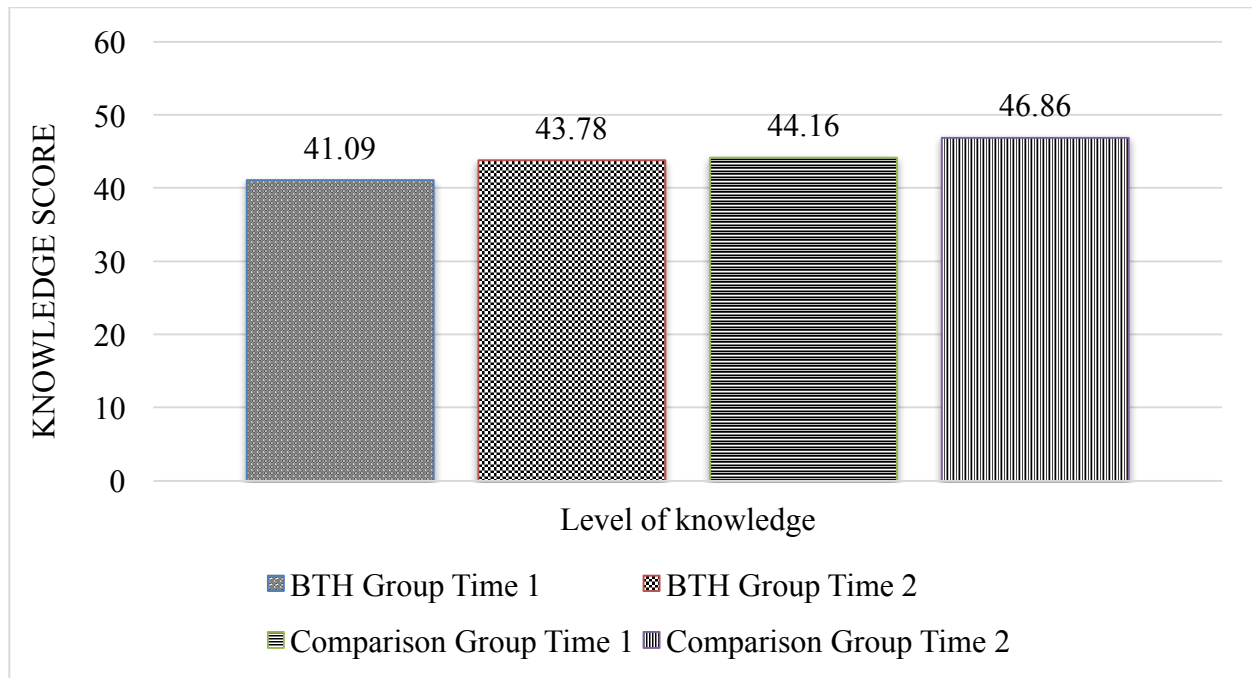
*Note.* Frequency scores: 1 = I have not experienced this at all in the last 2-3 months; 2 = It has only happened once or twice; 3 = Two or three times a month; 4 = about once a week; 5 = several times a week. \* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .

**Figure 3. Victimization and perpetration outcomes for vulnerable youth.**



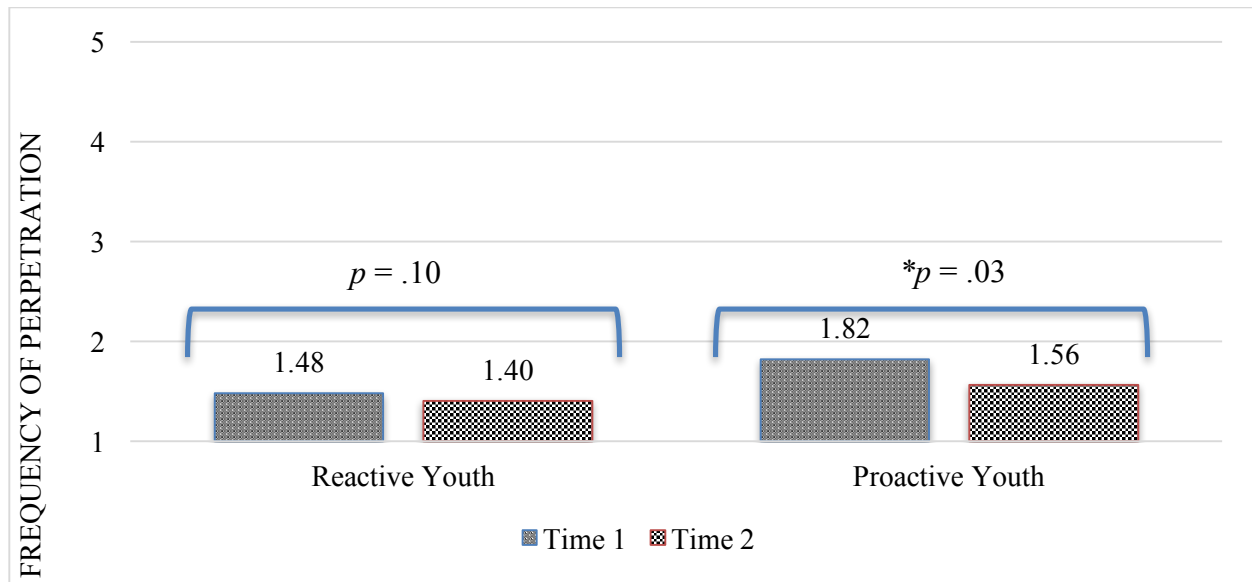
**Figure 4. Bystander response to bullying. No significant differences,  $p > .05$ .**





*Note:* Level of Knowledge Scale scores range from 0 to 60, with higher scores representing greater knowledge about bullying behaviour and prevention. No significant differences,  $p > .05$ .

**Figure 5. Level of participant bullying-related knowledge.**



*Note.* Frequency scores: 1 = I have not experienced this at all in the last 2-3 months; 2 = It has only happened once or twice; 3 = Two or three times a month; 4 = about once a week; 5 = several times a week.  $*p \leq .05$ .  $**p \leq .01$ .  $***p \leq .001$ .

**Figure 6. Bullying perpetration outcomes by perpetrator style of aggression.**