



brave, Confident, Strong
Individuals (bCSI)

Background information and
evidence to inform programme
development

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Introduction

This work was undertaken to provide background information to inform the development of bCSI. Of particular interest was to gain an understanding of the levels of violence in the school pupils, whether they perceived it as an issue that affected them, their awareness of the impact of youth violence, what they believed were the causes of youth violence, and under what circumstances they felt violence could be justified. This work also sought to understand how pupils would like the information delivered to them, and also what sort of information they would like to receive. To help further inform the development of bCSI a review of the literature relating to school-based programmes for the prevention of violence will first be presented. The methodology for the development work will then be described and the results will then be presented.

Literature review

The current best evidence in violence prevention supports the use of programmes that are delivered to children in early life and seek to prevent violence from occurring in the first instance (Sethi et al., 2010). In particular, the use of social development programmes has been associated with a decrease in aggression and an improvement in social skills (World Health Organization [WHO], 2009). Social development programmes are underpinned by the social development model which proposes that antisocial and pro-social behaviour can be predicted by an individual's risk and protective factors (Catalano et al., 1995). Therefore, it is proposed that interventions which aim to enhance protective factors can reduce the impact of risk factors and thus reduce engagement in health risk and antisocial behaviours (Hawkins et al., 1999).

Social development programmes aim to promote pro-social skills (e.g. problem-solving, anger management, stress and emotional management, empathy) which enable the development of friendships, communication with peers and non-violent conflict resolution skills (Grossman et al., 1997). The presence of such skills enables children and adolescents to develop and maintain healthy relationships and manage difficult situations and conflict

without the need for violence (WHO, 2009). Programmes that have demonstrated success in developing pro-social skills have also had positive effects in terms of reducing beliefs supportive of aggression and violent behaviour (Shapiro et al., 2002, Flay et al., 2004, Sethi et al., 2010). As an attitude intolerant of violence is one of the strongest potential protective factors for violence (Office of the Surgeon General [US], 2001), the development of such attitudes can form a key component of violence prevention programmes. However, it should be noted that attitudes are not the sole predictors of behaviour as according to the theory of planned behaviour, behaviour is also influenced by perceived behavioural control and subjective norms (Ajzen, 1991) and as such prevention programmes should also account for these predictors of behaviour.

Like bCSI, many social development programmes are implemented universally to school year groups (i.e. to all pupils and not on the basis of individual risk). The advantage of such an approach is that it is delivered in a social context (Farrell et al., 2001a) and a large number of young people can be reached with relative ease (Hahn et al., 2007). Additionally they can be combined with activities (e.g. sport, drama, etc.) to increase social participation in school more generally (WHO, 2009). When delivered in school, programmes may also seek to change the class or school environment and the norms of the school (Farrell et al., 2001).

Universal school-based social development programmes aimed at young people aged 10-12 years have shown some effectiveness in a number of studies. A notable programme is the Peacemakers programme, which is a 17-lesson programme that covers violence-related attitudes, values, self-concept and anger management (Shapiro et al., 2002). In addition, teachers are encouraged to incorporate the programme into everyday life by reinforcing pro-social behaviour and helping students recognise potentially problematic situations and reinforcing each other's pro-social behaviour with the aim of these strategies becoming school-wide norms. A cluster-controlled study reported that the programme was not associated with any significant change in attitudes towards violence and guns, however, there was an increase in knowledge of pro-social skills, and reduction in aggressive

behaviour (self-report and teacher-rated), disciplinary incidents, conflict mediation referrals and suspensions in the intervention compared to the control group (Shapiro et al., 2002). Whilst the programme was delivered in middle schools and elementary schools (4th-8th grade students), Shapiro et al. reported that the effects were greatest for the middle school pupils. This is of particular interest as generally the most effective prevention programmes have been delivered to younger students (Hahn et al., 2007). Moreover, as effects were not consistent across age groups, this demonstrates that there is no 'one-size fits all' programme and highlights the need for process evaluation to establish which programme features are most effective and for whom.

A number of other universal social development programmes have also demonstrated positive effects on violence-related outcomes in young people aged 10-12 years. For instance, in a cluster-randomised trial, students receiving the *Life Skills Training* programme were significantly less likely to engage in physical and verbal aggression, fighting and delinquency than students in the control group (Botvin et al., 2006). In another cluster-randomised study, the Aban Aya Youth project (a culturally sensitive social development programme for African-American 5th graders) demonstrated a significant reduction in the growth of violence in intervention students compared to control students at the end of 8th grade (Flay et al., 2004). However, it should be noted that not all social development programmes have demonstrated positive effects. In particular, a cluster-randomised study of the Guiding Responsibility and Expectations for Adolescents for Today and Tomorrow (GREAT) social development programme reported that pupils receiving universal intervention actually had significantly higher levels of attitudes supportive of aggression, individual norms for non-violent behaviour, self-report aggression and school norms for aggression (Simon et al., 2009, Simon et al., 2008).

As noted previously, according to the theory of planned behaviour, behaviour is influenced by social norms (Ajzen, 1991), in particular individuals may be more influenced by the people they identify with (Terry and Hogg, 1996). Therefore in addition to enhancing an individual's pro-social skills and attitudes, it is also important to change group norms

supportive of violence. Such an approach was utilised by the Responding in Peaceful Pathways (RIPP) violence prevention programme, which incorporated teaching a curriculum on knowledge, attitudes and skills that promote nonviolence and skills for preventing violence, alongside prevention specialists who model appropriate behaviours and develop pro-social norms and expectations (Farrell et al., 2001b). RIPP has been evaluated in 6th grade pupils in urban and rural areas through cluster-randomised trials. First, in the urban setting, students receiving the intervention had significantly lower rates of violent behaviour, suspensions, threatening to hurt a teacher and requiring medical treatment following a fight, and higher rates of participating in peer mediation. However, the effects that were maintained at follow-up were limited to increased rates of participation in peer mediation (6-months) and lower rates of threatening to hurt a teacher (6-months, girls only at 12-months) and suspensions (boys only at 12-months). Secondly, in the rural setting students received the 6th grade programme and an additional programme in the 7th grade which focused on conflict resolution in friendships (Farrell et al., 2003). Farrell et al. (2003) reported that the pupils in the intervention group had significantly lower rates of approval of violent behaviour, victimization, peer provocation and threatening someone with a knife at the start of the 7th grade. At the end of the 4-month follow-up the intervention students had significantly lower rates for approval of violence, peer victimisation and threatening someone with a knife, and higher rates of approval of nonviolence and life satisfaction. At the 9-month follow-up intervention students had higher rates of approval of nonviolence and life satisfaction, and lower rates of carrying weapons to school and being injured in a fight. Farrell et al. (2003) argue that the results of their evaluation indicate that RIPP is having an effect on school norms supportive of violence; however, they caution that as the effect sizes were small, further work is needed to develop violence prevention programmes for this age group.

While RIPP demonstrated some success in changing attitudes towards violence and school norms in middle school students (Farrell et al., 2001, Farrell et al., 2003), the Students for Peace programme, which included both a social development component and social norms component, did not have any significant improvement on aggressive behaviour (Orpinas et al., 2000). As the current evidence for violence prevention programmes is mixed and is

generally concerned with outcomes, more attention is needed to identify what makes a programme successful through process evaluation. For example, Fagan and Mihalic (2003) reviewed the results of the Life Skills Training programme, which was delivered at over 70 sites. The authors reported that while implementation fidelity was generally good, a number of barriers to successful implementation were identified such as lack of attendance at training workshops, lack of support, from school administrators and the trainers, problems integrating the programme and teacher deviation from the programme. Fagan and Mihalic hypothesise that lack of support from teachers may lead to deviation from the curriculum which could result in decreased demonstrable change in pupils' attitudes and behaviour. However, whilst this study demonstrates the importance of teacher "buy-in", it is focused on the practicalities of programme implementation.

To further explore the characteristics of effective primary prevention programmes, Nation et al. (2003) conducted a review of reviews which examined programmes aimed at the prevention of substance abuse, risky sexual behaviour, school failure, and delinquency and violence. The authors identified nine principles that were associated with effective preventions:

- *Comprehensive*. This can refer to having a range of interventions (i.e. provide knowledge and develop relevant skills) or interventions delivered in multiple settings to address community and school norms.
- *Varied teaching methods*. This refers to active learning experiences which develop participants' skills that are specific to the health risk behaviour (e.g. conflict resolution skills for violence prevention).
- *Sufficient dosage*. This refers to session length, number of sessions etc. In particular, effective programmes generally include follow-up or booster sessions focusing on previously learned skills or new age appropriate skills are necessary to maintain positive effects.
- *Theory driven*. This refers to the need for interventions to have a theoretical basis which either focus on the aetiological theories for behaviour (e.g. risk and protective

factors, processes) or intervention theories which focus on how to change aetiological risks.

- *Positive relationships*. This refers to enabling young people to develop positive relationships with adults and peers.
- *Appropriately timed*. This refers to timing the intervention when it will have the most impact. If delivered too early there is a risk of the positive effects being lost and if delivered too late the health risk behaviour may already be initiated. This principle also refers to ensuring the programme matches the participants' developmental stage.
- *Socioculturally relevant*. This refers to considering community norms and cultures (i.e. using appropriate language, considering local practices) and ensuring the programme addresses the participants' individual needs. This can be achieved by including participants in the development of the intervention to identify their own needs.
- *Outcome evaluation*. This refers to the need for a well conducted outcome evaluation to determine programme effectiveness and protect against anecdotalism.
- *Well-trained staff*. This refers to the need for competent and sensitive staff who "buy in" to the programme and have received sufficient training.

This paper highlights the need for carefully designed interventions, in particular the need for a focus on developing skills, sufficient programme "dosage" and appropriate timing of the intervention. Moreover, Nation et al. (2003) identified a gap between theory and practice and as such there is need for prevention science research that can be utilised by practitioners. As the evidence for programmes for the primary prevention of violence in young people aged 10-12 years is so mixed and given the need for culturally-relevant programmes, there is clearly no intervention that can simply be re-used. However, the evidence reviewed does suggest that the most effective programmes incorporate social development programmes and social norms approaches. The principles detailed by Nation et al. could act as a useful framework for the development of bCSI, particularly as it aims to be a socioculturally-relevant programme which enables the participants to be active learners. The baseline work seeks to identify pupils' needs and is therefore consistent with

the socioculturally-relevant principle. In terms of using a theoretical base, the theory of planned behaviour (Ajzen, 1991) and the social development model (Catalano et al., 1995) are worth consideration. The methodology for this project will now be presented.

Methods

A concurrent transformative mixed-methods design was utilised, whereby the qualitative and quantitative data were collected concurrently and analysed separately before being integrated (Cresswell et al., 2003). Using such an approach provides an understanding of the context in which bCSI will be delivered and will establish the prevalence of aggressive behaviour and attitudes. As this study aims to provide background information for the development of bCSI, it is anticipated that the qualitative data will best address this. For instance, the qualitative data sought to explore pupils' perceptions of youth violence (i.e. if they think it is a problem in their area, who it affects, what are the causes) and what information they would like to receive through the bCSI programme. Whereas the quantitative data examined how often pupils engage in aggressive behaviour (i.e. physical, non-physical and relational) and measure their attitudes towards use of aggression and non-violent alternatives.

Ethical Approval

This study was granted approval by the University of St. Andrews, School of Medicine, Ethics Committee. Approval was also granted from West Dunbartonshire and Clackmannanshire Local Education Authorities (LEAs) to conduct this study in schools within their area.

Setting and Participants.

The two Schools (A and B) who will receive the bCSI programme in the 2014-2015 academic year agreed to take part in the project. These schools were from two different communities (within Clackmannanshire and West Dunbartonshire LEAs) in the West of Scotland. Both schools had a higher than national average level of socioeconomic deprivation as measured

by the percentage of students registered for free school meals (school A = 43.5%, school B = 49.6%; Scottish average = 22.0%) (Education Scotland, 2014).

The target year group for bCSI is primary 5-7. As the baseline work was conducted before the school summer holidays (and thus the primary 7 pupils would be moving to secondary school after the holidays) schools were asked to invite a primary 5 or 6 class to take part. Consequently, the class from School A was a primary 5 class and the class from School B was a primary 6 class at baseline. After these classes had been identified, parental permission was sought via an information sheet and consent form, which were sent to parents of all the pupils in the class. Return of signed parental consent forms was an issue in this project. In School A the class was sixteen pupils and half of the parents returned the consent form and gave permission for their child to take part (n=8). The class teacher noted that this was a good return rate for this class. In School B the class size was approximately 20 pupils, however, only four parents returned the consent form and agreed to their child's participation in the study. The class teacher had attempted to increase the return rate by sending the letter and form out twice and reminding the pupils daily (as non-return of forms is a big problem in this class).

All pupils for whom parental consent was received were asked to read an information sheet and complete a consent form if they were willing to take part in the study. One male pupil in School A declined to take part in the study after reading the information sheet. No reason was given and the pupil returned to their class. All pupils who consented to take part were asked to complete the questionnaire and take part in focus groups, which resulted in a total of seven pupils at School A (four male) and 4 pupils at School B (one male). In School A the teacher felt it would be best to split the pupils into smaller groups so the pupils were divided into two groups. The first group consisted of three male and one female pupils and the second group consisted of one male and two female pupils (N.B. this group originally had four pupils but one male pupil left). In School B the four pupils formed one group.

Qualitative data

Qualitative data was collected in the form of focus groups. Focus groups were selected for this purpose as they provide a social context for the research and also provide participants with an opportunity for reflection on their own attitudes and behaviours after hearing the views of others (Ritchie, 2003). The focus groups were conducted by AG using a topic guide (see Appendix 1) and lasted approximately 30 minutes. Each group consisted of between three and four pupils and was conducted in a classroom in order to provide a naturalistic setting. The focus groups were recorded using a digital recorder and then transcribed onto a password protected computer. Following verbatim transcription (by AG) all transcripts were read and emerging themes were identified, which are presented in the results section.

Quantitative data

Two scales were administered to pupils (see Appendix 2). These scales were selected as they were included in the Centres for Disease Control compendium of assessment tools for measuring violence-related attitudes, behaviours and influences (Dahlberg et al., 2005), which details validated and reliable measures to assess factors associated with violence in young people.

The first scale, “the aggression-problem behaviour frequency” (APB) scale (Multisite Violence Prevention Project, 2004, cited in Dahlberg et al., 2005), measures the frequency of different forms of aggressive behaviour in the last 30 days (e.g. item 2 “been in a fight in which someone was hit” or item 12 “told another child you wouldn’t like them unless they did what you wanted them to do”). There is a total of 18 items, which are split into three subscales measuring physical aggression (1-7), non-physical aggression (8-12) and relational aggression (13-18). Each item has six response choices which represent the number of times in the last month an aggressive behaviour has been engaged in (0, 1-2, 3-5, 6-9, 10-19, 20 or more). Point values are then summed for each subscale, with higher scores indicating higher levels of aggressive behaviour.

The second scale, entitled the “beliefs about aggression and alternatives” (BAA) scale (Multisite Violence Prevention Project, 2004, cited in Dahlberg et al., 2005) measures pupils’ beliefs about the use of aggression and non-violent alternatives in hypothetical situations (e.g. item 3 “if people do something to make me really angry, they deserve to be beaten up” or item 8 “I try to talk about problems instead of fighting”). There is a total of 12 items in the scale, which is split into two subscales measuring use of non-violent strategies (items 1, 2, 5, 7, 8) and beliefs about aggression (3, 4, 6, 9, 10, 11, 12). Each item has four response choices (strongly agree, agree somewhat, disagree somewhat, strongly disagree) and participants are asked to circle the answer they most agree with. All items are reverse scored and points are summed for each subscale. A high score for the beliefs about aggression subscale indicates beliefs more supportive of aggression, whereas a high score in the use of nonviolent strategies subscale indicates higher levels of support for use of nonviolent strategies.

Both scales were designed for use with young people the same age as the children receiving bCSI; however, it should be noted that these scales were developed in the US and consequently the language was amended on some items to be more appropriate for use in Scottish school pupils (e.g. gun was replaced with knife).

The questionnaire was completed in class under the supervision of the researcher. To help minimise social desirability bias, all questionnaires were anonymous. After completion all data obtained from the questionnaires was entered into the Statistical Package for the Social Sciences (SPSS) version 21.0 (IBM Corp, 2012). One pupil either inadvertently missed a question or may have chosen to omit a question. As missing items underestimate an individual’s total score for a scale, these values either need to be replaced or the scale excluded (i.e. listwise deletion). As listwise deletion can bias results (Schafer and Graham, 2002) and decrease the power (Roth et al., 1999), the item was replaced using mean person imputation (i.e. using the mean score of the participant’s items for each scale to replace the missing value), which has been used as a method for dealing with missing data in other

studies using different scales (see Fairclough and Cella, 1996, Roth et al., 1999, Shrive et al., 2006).

In order to establish the prevalence of violent behaviour and attitudes, mean scores for each of the subscales were calculated. Further analysis was undertaken to establish if there was a significant difference between male and female pupils, and between schools. This was done using an independent samples t-test if the data was parametric or a Mann-Whitney test if the data violated the required assumptions. Due to the small sample size an exact test was used to calculate the significance of the Mann-Whitney test (Field, 2009). In order to explore pupils' attitudes towards aggression predicted their behaviour, as simple regression analysis was conducted. However, it should be noted that due to the small sample size, these results should be interpreted with caution.

Results

The way in which pupils responded to and completed the information sheet, consent form and questionnaire will first be discussed. A description of the emerging themes identified in the qualitative data will first be presented and this will be followed by quantitative data obtained from the questionnaire.

Completion of consent form and questionnaires

After a brief introduction to the study, pupils were asked to read the information sheet. Pupils in School A struggled at times to read the sheet and asked me for guidance. Pupils from school B (who are one year older) found the information sheet easier to understand. All the pupils taking part were able to understand and complete the consent form without any difficulties.

Pupils in both schools took approximately 15 minutes to complete the questionnaire. Following a brief explanation as to how to complete the questionnaire, pupils did not appear to have much difficulty answering the questions. However, they did ask for clarification on a number of items, particularly on the APB scale. For instance, some pupils queried what “physically harm” (item 7), “insulted “ (item 8), “put someone down to their face” (item 10) and “rumours” (item 16) meant. On the BAA scale some pupils queried what “even if other pupils would think I’m weird, I would try to stop a fight” (item 2) and “sometimes I only have two choices: get punched or punch the other pupil first” (item 11) meant. After an explanation the pupils were able to complete the items. In both schools pupils needed clarification on how to circle items on the BAA scale.

Qualitative data

Emerging themes were identified following transcription of the focus group recordings and will be presented, utilising verbatim quotes where appropriate. In the case that pupils’ had differing beliefs and attitudes, quotes which represent the different viewpoints are presented. The themes have been divided into 9 topics, which will now be presented. These topics have been further divided into 58 sub-topics, which will form the conceptual framework (see Appendix 3) and will be used to code the data to provide a deeper level of analysis, at a later date.

Awareness of youth violence

All pupils were aware of violence in their local area and believed it primarily involved teenagers. The children also thought violence was an issue in Glasgow more widely, particularly in the context of football. Whilst pupils were aware of the physical consequences of violence, pupils noted the violence in their areas was generally not serious:

“there’s a lot of fighting going on at my bit but no one ever gets hurt well some people do get hurt but never like have to go to hospital” (female pupil, School A).

Nevertheless, pupils described feeling scared to go into certain areas:

“there was like gangs of drunk teenagers hanging about the stairs and the hill and you have to go up either stairs or the hill to get to where we live it’s quite scary cause you’ve got to walk past them smoking and stuff like that” (female pupil, school B).

Consequently, some group members avoided going to areas at certain times, particularly on Friday and Saturday night as that is when they noticed that people had been drinking. This association between alcohol and violence was a recurrent theme in all focus groups.

While the majority of pupils did not admit to being personally involved in violence, two pupils (one male and one female) did describe using violence on family members to get what they wanted (i.e. sweets or control of the TV) although they acknowledged that they did not feel this was acceptable behaviour. The group in School B also raised the issue of psychological violence, which they perceived to be as important as physical violence:

“people like they think of physical abuse and that is really bad but emotional abuse can actually lead to more serious” (female, School B)

The children in School B also commented on the presence of cyberbullying which they believed was an issue and noted that they had received information in school on this subject.

Causes of youth violence

Groups consistently felt that young people engaged in violence to act cool or be the “big man” although it should be noted that these pupils did not view violence as cool:

“they do it probably act cool so everybody can see wow they’re good at stuff but they’re actually just being silly” (female, School A).

Pupils also believed this perception of violence being cool could encourage younger children to take part in violence:

“you’re watching other people doing it and then you might do it when you’re older” (female, School A).

Additionally pupils in school B considered that observing violence in the family could lead to later involvement in violence:

“they see that in their house the parents maybe do it to other people they see movies and copy it and they want to be like them”
(female, School B)

This perception of imitating violence in films was consistently identified by pupils. Similarly, many pupils felt video games such as *Call of Duty* could encourage violence. It should be noted that several of the male pupils reported regularly playing this game and during the focus group did act out parts of it. Indeed, one male pupil in School A reported that he wanted to fight for the Navy after playing *Call of Duty*.

Perceptions of knife carrying

The pupils did believe that knife carrying could at times be an issue in their area; and some felt knife crime was an issue in Scotland more generally, although it was not something that they had been involved in. School B felt that knife crime had been a problem in their area a couple of years ago, but perceived fighting to be a bigger issue. Nevertheless, pupils were aware that carrying and using knives was dangerous:

“someone could get hurt and have to go to hospital” (female, School A).

Perceptions of gangs

Whilst the majority of pupils felt gangs could cause problems in terms of fighting, vandalism and arson, several pupils felt that gangs were not necessarily bad:

“I think its just people that are friends and they just play things as friends they stay together but if they ever see something bad they would go and join it” (male, School A)

Moreover, another pupil in the same group commented that:

“sometimes I make up a gang and it’s like a good gang” (female, School A).

Similarly, School B described hanging about in a group of friends, which is similar to a gang but not involved in antisocial behaviour. However, pupils did believe that whilst gangs do not necessarily engage in violence, and other behaviours such as smoking and drinking

alcohol, they did describe feeling intimidated by teenagers if they were in a gang as they would often shout at the pupils:

“because if you don’t see a lot like you wouldn’t think it was dangerous if there was like one of them because you could like easily run but if there’s like six or seven of them” (female, School B).

Moreover, several pupils felt it was being part of a group that gave young people the confidence to engage in antisocial behaviour. Indeed, the majority considered the primary motivation to join a gang was to act cool. Groups also consistently associated gangs with alcohol and smoking, which they tended to also view negatively.

Attitudes towards violence

The majority of children generally felt negatively towards proactive forms of violence, although, as noted previously, two pupils did admit to using violence to get what they wanted from family. These two pupils also believed that other young people may use violence to get what they want as they would be scared to ask for it. Moreover, several male pupils in School A reported that they enjoyed watching violent films and playing violent video games, despite feeling generally negative towards proactive violence. Conversely, several pupils thought that violence was justified in response to threats or as a form of self-defence and suggests an acceptance of reactive forms of violence (i.e. violence in response to actual or perceived threats):

“if somebody tries to hurt you like punch you it’s acceptable to use self-defence but I don’t think it’s really fair that people go to you first or you go to other people first” (female, School A)

However, several pupils from School A stated that they would not use violence and instead would use non-violent strategies to avoid escalating the situation:

M1 if its like inside and someone's threatening you I'll just scream and shout until someone noticed it's happened

F1 I would run away and go and tell and adult

F2 I would just walk away and so it doesn't get bigger the fight and you if you start doing it will get bigger and then you'll get most hurt even more (male and female pupils School A).

Reducing violence

A small number of pupils believed that violence would never be preventable; however, other pupils detailed other strategies which they thought could help reduce violence. In particular, pupils felt that posters could be used as a means of educating young people about the risks of violence and knife carrying:

M1 try to tell people to stop carrying that around and doing it

F1 and make like posters and all that saying don't fight cause you're teaching young ones (male and female pupils School A).

In addition, focus group members indicated that measures beyond prevention programmes such as further police involvement and reduced access to violent computer games would be necessary to prevent violence.

bCSI logo

The majority of pupils associated the bCSI logo, with CSI:

“makes me feel like you know that tv programme CSI it makes me think of that” (female, School B)

However, some pupils were not aware of CSI and instead thought it was either a company or something related to the police, and did not demonstrate positive or negative attitudes to the logo. The pupils who watched CSI enjoyed it and the name bCSI therefore appealed to them. Additionally, a few pupils mentioned that having a bright, bold logo would appeal to them.

bCSI format and content

Pupils responded enthusiastically to the proposed format and content of bCSI. In particular, they liked the idea of being able to solve cases as problem-solving activities. Whilst the pupils liked the idea of a computer programme, a few pupils also felt a drama component would enhance bCSI. Several pupils also suggested a discussion or presentation component so they were not writing the whole time. Some pupils also felt that making posters discouraging the use of violence would be helpful in reducing peers involvement in violence.

All pupils were particularly keen to learn about violence from the perspective of the police (particularly in terms of how the police collect information) and the majority of pupils also wanted to learn about violence from the perspective of healthcare professionals and journalists. In particular, one group suggested interviewing other pupils to ask them what they thought about violence.

Pupils were also keen to learn how to manage situations where their friends became involved in violence:

M1 I'd like to know how involved if your friend was in something like what to do

F1 what to do when you're friends in that and how to stop it (male and female pupils School A).

The groups were also interested to learn why other young people got involved in violence and how it could make them feel later:

"what would they think why they gonna do it and what do they feel like after it so they might feel good or bad or worried" (male, School A)

However, the group in School B questioned the focus on physical violence:

"I think maybe it should be not just weapons but I think maybe emotional abuse" (female, School A).

These pupils believed that emotional abuse was potentially a bigger issue than weapon carrying as it could lead to suicide and consequently this should be included in a violence prevention programme.

bCSI resources

In terms of resources for the programme, pupils were enthusiastic about seeing film footage. Although, they did also acknowledge that newspaper articles and audio clips would also be of interest. The majority believed that real actors would be preferable to cartoons:

“real people so we can relate to them” (female pupil, School B)

However, there was debate amongst the groups regarding this:

*M1 cause if its cartoons then it might make it a bit more funnier
whereas actors they might make it a bit more serious*

*F2 uhuh cause like you can make cartoons look a bit funny but
with actual people it makes them look it explains to the people
actually what happens and show the people*

*F1 I think cartoons cause like that would make more people watch
it cause they like cartoons (male and female pupils, School A).*

The pupils concluded that whilst cartoons could be more entertaining, they would be able to relate more to real actors and it would make the programme more informative.

Quantitative data

Cronbach’s alpha was calculated to provide a measure of reliability for each of the subscales. The internal consistency for the physical ($\alpha = .82$) and relational aggression ($\alpha = .74$) subscales of the PBF was good and the non-physical aggression was acceptable ($\alpha = .60$). However, if item 9 (“teased somebody to make them angry”) was deleted Cronbach’s alpha increased to .70. Beliefs about the use of non-violent strategies subscale of the BAA scale demonstrated good internal consistency ($\alpha = .82$) and the beliefs about the use of aggression subscale had acceptable internal consistency ($\alpha = .65$). This could be increased to .69 if item 12 (“sometimes I only have two choices: get punched or punch the other kid first”) was removed.

In order to determine normality the Kolmogorow-Sminov (K-S) test was performed on each of the subscales (Field, 2009). The K-S test was significant for physical aggression sub-scale ($D(11) = .25, p = .045$) and strategies supporting non-violence sub-scale ($D(11) = .26, p = .03$), indicating the distribution was significantly non-normal. However, the K-S was non-significant for the non-physical aggression sub-scale ($D(11) = .13, p = .200$) and relational aggression subscale of the PBF ($D(11) = .22, p = .14$) and beliefs about aggression subscale of the BAA ($D(11) = .25, p = .052$).

Levene's test was used to establish whether variance between male and females was roughly equal (Field, 2009). Within this sample variances were equal for physical aggression ($F(1, 9) = .31, p = .59$), non-physical aggression ($F(1, 9) = .76, p = .41$), relational aggression ($F(1, 9) = .02, p = .88$), beliefs about aggression ($F(1, 9) = .93, p = .36$) and strategies for non-violence ($F(1, 9) = .1.33, p = .28$) subscales indicating homogeneity of variance.

As parametric tests can be biased when the assumptions of normality and homogeneity of variance are violated, the Mann-Whitney test is recommended instead of the t-test (Field, 2009). Although the assumption of homogeneity was always met, the assumption of normality was violated for the physical aggression sub-scale and strategies supporting non-violence sub-scale and a Mann-Whitney test was therefore used when analysing the results from these scales.

Aggression Problem Behaviour Frequency Scale

The mean scale scores and standard deviations (SD) and mean items scores for each of the subscales are detailed in table 1. Although male pupils had slightly higher mean scores on the sub-scales, a Mann-Whitney test identified that there was no significant difference in physical aggression between male (Mdn = 11.00) and female pupils (Mdn = 10.00; $U = 15.00, z = .00, p = 1.00$). An independent samples *t*-test also identified no significant difference in non-physical aggression between male and female pupils ($t(9) = .11, p = .41$) and in relational aggression between male and female pupils ($t(9) = .325, p = .88$).

Table 1. Mean (SD) ABF subscale scores by gender

	Total	Mean item score	Male	Female
Physical aggression (range 0 – 35)	11.27 (4.00)	1.68	11.40 (5.22)	11.17 (3.19)
Non-physical aggression (range 0 – 25)	9.09 (2.91)	1.82	9.20 (2.28)	9.00 (3.58)
Relational aggression (range 0 – 30)	10.91 (4.37)	1.82	11.40 (4.77)	10.5 (4.42)

Beliefs about aggression and alternatives

The mean score and standard deviations for the beliefs about violence subscale are detailed in table 2. Male pupils had higher scores for beliefs about aggression and use of non-violent strategies. However, an independent samples t-test did not identify a significant difference between male and female pupils ($t(9) = 1.06, p = .36$). Similarly, a Mann-Whitney test did not identify a significant difference in use of strategies for non-violence between male and female students ($U = 8.50, z = -1.19, p = .26$).

Table 2. Mean (SD) BAA subscale scores by gender

	Total	Male	Female
Beliefs about aggression (range 7 – 28)	16.18 (4.07)	17.60 (4.62)	15.00 (3.52)
Use of non-violent strategies (range 5 – 20)	15.52 (4.26)	16.95 (3.64)	14.33 (4.67)

As attitudes are hypothesised to influence behaviour (Ajzen, 1991), in order to test whether beliefs about aggression predicted aggressive behaviour a simple regression was conducted. It was found that, beliefs about aggression predicted physical aggression ($\beta = .68$, $t(10) = 2.85$, $p = .02$) but not non-physical aggression ($\beta = .47$, $t(10) = 1.60$, $p = .14$) or relational aggression ($\beta = .50$, $t(10) = 1.75$, $p = .11$). However, whilst there was a significant negative relationship between strategies supporting non-violence and non-physical aggression, ($\beta = -.71$, $t(10) = -3.01$, $p = .02$), there was no significant negative relationship between high use of non-violent strategies and physical aggression ($\beta = -.33$, $t(10) = -1.05$, $p = .11$) or relational aggression ($\beta = -.19$, $t(10) = -.58$, $p = .58$).

Discussion

A discussion of the main findings will first be presented, followed by recommendations for the development of bCSI. As this project sought to pilot evaluation methods, it is important to first consider the evaluation process itself before discussing the results. Unfortunately, the response rate from parents was poor and only 12 provided completed consent forms. As the remaining parents did not reply (specifically objecting to their child's involvement), it is difficult to know whether the poor response rate was due to parents not completing the form or not wanting their child to participate. The teachers noted non-response was an issue in their classes, so means of increasing response rates need to be considered. This could include posting letters home to parents or using brightly coloured paper to get attention, which is a technique that was suggested by colleagues of AG who have children in school. In terms of documentation for pupils, the younger pupils had some difficulties with the information sheet; however, they could understand the information when it was explained verbally. Pupils were able to complete the consent form without any difficulties.

The PBF and BAA were piloted to evaluate pupils' ability to complete them and give an understanding of the prevalence of aggressive behaviour and attitudes. Pupils were generally able to complete the questionnaire with relative ease; however, some pupils were unsure of a few terms and it would therefore be necessary to have somebody available to

answer questions. Alternatively, the language of the scale could be adapted and again piloted with the children. As some pupils expressed confusion at the BAA scale, it will be reformatted to have all the answers on the same line to make it clearer. All sub-scales of the PBF and BAA demonstrated acceptable or good internal consistency as measured by Cronbach's alpha. Internal consistency of the non-physical aggression and beliefs about aggression sub-scales could be improved by removal of one item, for both of which some pupils had difficulty understanding.

Before a discussion of the results of the study, it should first be emphasised that the sample is small ($n=11$) so no firm conclusions can be drawn. The data suggest that on average pupils are engaging in physically, non-physically and relationally aggressive acts several times a month, highlighting a need for violence prevention programmes. Interestingly there were no significant differences in frequency between male (11.4) and female pupils (11.17). On average pupils scored approximately half-way up the beliefs about aggression sub-scale, indicating the presence of some pro-violent attitudes. Again there was no difference between male and female pupils. However, pupils did score highly for the use of strategies for non-violence in response to conflict. This is particularly interesting in the context of the qualitative data, which indicated that the majority of pupils believed aggression was acceptable in response to provocation or threat, with only a minority discussing alternative non-violent strategies.

A simple regression analysis was conducted to examine the relationship between aggressive attitudes and aggressive behaviour. While aggressive attitudes did significantly predict physical aggression, they did not predict non-physical or relational aggression. Additionally, use of non-violent strategies was found to predict low engagement in non-physical aggression but not physical or relational aggression. This data indicates that while attitudes and skills may influence behaviour, they are not sole predictors which is consistent with the theory of planned behaviour (Ajzen, 1991), which demonstrates the importance of social norms in influencing behaviour. It is, therefore, important for bCSI to not only aim to change individual attitudes but also to change school and class norms supportive of violence.

Indeed, approaches suggested by the pupils could be used in this regard. By interviewing other pupils, the class receiving bCSI could collect data on other pupils' attitudes towards violence and present this information to the school through campaigns. In particular, this could involve the use of posters, which is an activity the pupils were keen to undertake. Drama sessions could also be performed by pupils to other classes to demonstrate non-violent social norms and behaviour. Such an approach would be consistent with the successful RIPP programme (Farrell et al., 2003b). The use of multiple approaches in this regard is also consistent with the recommendations by Nation et al. (2003).

Pupils believed there was a need for violence prevention programmes as they perceived violence was a problem in their own area. While they felt violence and other forms of anti-social behaviour tended to involve teenagers, children were also perceived to be at risk as they may want to imitate older children. Consequently, pupils were keen to learn strategies for avoiding violence and helping their friends if they got involved in violence or gangs. However, there was debate amongst groups as to whether or not gangs were always bad as some pupils felt gangs could simply be groups of friends who did not engage in violent behaviour. Nevertheless, pupils often described gangs in a negative manner, associating them with alcohol and appearing to be fearful of them, describing various methods they used to avoid being targeted by gangs.

Pupils responded positively towards the proposed bCSI programme. The majority associated bCSI with the CSI television series, which they found interesting despite it having a 15 age certificate. As a result, they were keen to take part in crime-solving activities. In particular, pupils were very keen to learn about how the police solved crimes. However, there was also interest in how healthcare professionals deal with violence in terms of the injuries and in the reporting of violence in the media. In terms of the resources for bCSI, pupils responded most positively towards film clips, although, there was debate as to whether these should include cartoons or real actors. Whilst some pupils felt cartoons would be more appealing as they were fun, the majority preferred the use of real actors would be preferable as it can show the reality of violence and could help people take the programme more seriously.

To conclude, violence appears to be an issue in the pupils' lives and a prevention programme would be welcomed by pupils. Based on the data collected and the literature review the following points are recommended for the development of bCSI:

- A focus on strategies for managing reactive forms of violence
- Further consideration of what actually defines a gang as not all pupils viewed them as being negative
- Consider the theoretical underpinnings of the programme (e.g. use the theory of planned behaviour; Ajzen, 1991)
- Incorporate a social norms approach in addition to attempting to change individual attitudes as consistent with the theory of planned behaviour (Ajzen, 1991)
- Attempt to use varied teaching methods
- As a part of the journalism component and to utilise social norms, pupils could interview their peers
- Development of anti-violence posters as an outcome of the programme which can be displayed around the school
- Consider the possibility of role-play or drama sections as an outcome of the programme to demonstrate non-violent behaviours
- As some pupils got very excited talking about violent video games, it would be important that the film clips were not too extreme
- Consider how to incorporate material on psychological violence in the programme
- Consider including information on the perpetrator's perspective (i.e. why they engaged in violence, how it made them feel etc.).

Appendix 1: Topic Guide

For use with school pupils in the development of bCSI.

Views on youth violence:

- Explore awareness of violence and knife crime
- Explore awareness of consequences of violence and knife crime
- Explore perceptions about what makes a gang
- Explore what encourages young people to get involved in risk taking behaviour
- Explore ideas around why people get involved with violence
- Explore ideas around what could improve youth violence
- Discuss whether it is acceptable to respond with violence. If so, in what circumstances (i.e. if they hit or kicked first, if they called them a name, if they said nasty things about their family or friends).
- Discuss whether they think it is acceptable to hurt somebody to get what they want (i.e. sweets, money)
- Explore why think other young people might use violence.
- Discuss how they would respond if somebody called them or a family member names.
- Discuss what they would think if they saw someone being bullied or hurt by other children and what would they do in this situation.
- Discuss what they would think if one of their friends got involved in gangs or other people that they thought were trouble.

bCSI:

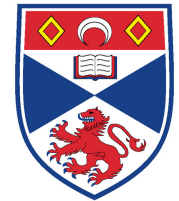
- Explore what information pupils would like to receive on youth violence, knife crime and gangs
- Identify whether pupils will prefer the use of cartoon characters or actors for bCSI programme
- Identify how pupils would like to receive the information using the programme (e.g. films, reports, pictures, audio clippings, newspaper articles)
- Explore which perspectives the pupils value (e.g. medical, police etc.).
- Explore their experience of the bCSI session
- Identify how bCSI could be improved

As this is a focus group further questions may expand upon the above topics depending on the participant's response.

Appendix 2: Questionnaire

bCSI Evaluation

Below is a list of statements about violence. Please read each statement carefully and answer it by circling the response that best fits with what you think. Don't just tell us what you think we want to hear. We want to know what you really think!



University
of
St Andrews

ID No:

Are you: Male or Female

Age:

In the last 30 days, how many times have you....

Number of Times

	0	1-2	3-5	6-9	10-19	20 or more
1. Thrown something at someone to hurt them?						
2. Been in a fight in which someone was hit?						
3. Threatened to hurt a teacher?						
4. Shoved or pushed another kid?						
5. Threatened someone with a weapon (knife)?						
6. Hit or slapped another kid?						
7. Threatened to hit or physically harm another kid?						
8. Insulted someone's family?						
9. Teased someone to make them angry?						
10. Put someone down to their face?						
11. Gave mean looks to another student?						
12. Picked on someone						
13. Didn't let another kid be in your group because you were angry at them?						
14. Told another kid you wouldn't like them unless they did what you wanted them to do?						
15. Tried to keep others from liking another kid by saying mean things about him/her?						
16. Spread a false rumour about someone?						
17. Left another child out on purpose when it was time to do an activity?						
18. Said things about another student to make other students laugh?						

How much do you agree or disagree with the following statements?

1.	If I'm angry at someone, I just ignore them.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
2.	Even if other kids would think I'm weird, I would try to stop a fight.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
3.	It's okay for me to hit someone to get them to do what I want.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
4.	Sometimes a person doesn't have any choice but to fight.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
5.	When my friends fight, I try to get them to stop.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
6.	If I back down from a fight, everyone will think I'm a coward.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
7.	There are better ways to solve problems than fighting.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
8.	I try to talk about problems instead of fighting.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
9.	I feel big and tough when I push someone around.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
10.	If people do something to make me really angry, they deserve to be beaten up.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
11.	Sometimes I only have two choices: get punched or punch the other kid first.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree
12.	If I get really annoyed, it's okay to hit someone.	Strongly agree	Agree somewhat	Disagree somewhat	Strongly disagree

Thank you very much for your help!

Appendix 3: Conceptual framework

Awareness of youth violence

- Aware of violence in neighbourhood
- Aware of violence in Glasgow area
- Associate violence with football
- Believe teenagers primarily involved in fighting
- Aware of the physical harm caused by violence
- Scared to go to specific areas
- Believe psychological violence can be as severe as physical violence
- Cyberbullying is an issue
- Use of violence to obtain goals

Causes of youth violence

- Younger children influenced by teenagers fighting
- Influenced by computer games and films
- Young people engage in violence to act cool
- Associate violence with alcohol and drugs
- Engage in violence to act hard
- Observe parents engaging in violence

Perceptions of knife-carrying

- Knife crime can be a problem in their area
- Scotland bad for knife crime
- Aware of dangers of knife crime

Perceptions of gangs

- Involved in vandalism
- Scared of gangs
- Join to act cool
- Consider a group of friends to be a gang
- Believe not all gangs involved in youth violence
- Don't like walking past gangs of teenagers as get shouted at if on own

- Associate gangs with alcohol and smoking
- Gang gives confidence to engage in antisocial behaviour

Attitudes towards violence

- Violence acceptable as a form of self-defence
- Violence acceptable in response to talking about family
- Violence acceptable in response to threats
- Violence never acceptable
- Proactive forms of violence not acceptable
- Enjoy watching violence on TV/video games
- Feel negatively towards violence
- Believe those engaging in violence will regret it
- Believe people may use violence to get what they want as are scared to ask

Reducing violence

- Police involvement
- Reducing access to violent computer games
- Poster campaign to educate young people on consequences of violence

bCSI logo

- Title associated with CSI
- Believed title was name of a company
- Associate logo with the police
- Would like logo to be colourful

bCSI format and content

- Feel positively towards working on cases
- Computer programme is appealing
- Like to be able to solve problems
- Majority interested to learn about medical perspectives (i.e. learn about science and injuries)
- Majority interested to learn about journalist perspectives
- All keen to learn about police perspective
- Would like to learn how to help a friend involved in violence
- Would like to know why young people engage in violence
- Would like to know how perpetrators feel after they have engaged in violence

- Believe programme should include content on psychological violence
- Would like to interview people in school
- Previously enjoyed drama components of other programmes

bCSI resources

- Particularly interested in seeing film footage
- Some interest in seeing newspaper articles, audio clippings
- Use of real actors would make programme more serious and appealing to adults
- Would be able to identify with actors
- Use of cartoons would make programme more fun
- Previously enjoyed drama components of other programmes

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