VIOLENCE BRIEF INTERVENTIONS: A RAPID REVIEW

[Published in Aggression and Violent Behaviour]

doi:10.1016/j.avb.2014.09.015

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Keywords: Violence; brief intervention; alcohol; maxillofacial; social norms

Acknowledgements: This research was funded by the Violence Reduction Unit (Police Scotland).

Abstract

Provision of a Violence Brief Intervention (VBI) to young men undergoing treatment for a violent injury may represent a teachable moment for the prevention of future interpersonal violence in Scotland. Prior to intervention design, a rapid review of the research literature was necessary to examine existing programmes. After title and abstract screening, eight distinct VBIs were identified from full texts. Whilst none of the programmes were a perfect match for our intervention goals, they did demonstrate the potential effectiveness of brief interventions for violence prevention at both cognitive and behavioural levels. Key themes of successful interventions included brief motivational interviewing as an effective method of engaging with at-risk participants and encouraging change, the utility of social norms approaches for correcting peer norm misperceptions, the usefulness of working with victims of violence in medical settings (particularly oral and maxillofacial surgeries), the importance of addressing the role of alcohol after violent injury, the advantages of a computer-therapist hybrid model of delivery, and the need for adequate follow-up evaluation as part of a randomised control trial. This information has been used to design a VBI which is currently under evaluation.

1. Introduction

This rapid review forms the starting point in the design of a Violence Brief Intervention (VBI) for young men in Scotland. Loosely modelled upon an Alcohol Brief Intervention (ABI) (Bien, Miller, & Tonigan, 1993), it is hoped that this initiative will develop a brief one-to-one intervention that is effective and easy to administer in a variety of settings. Whilst it is recognised that a VBI is unlikely to provide a holistic solution to the multitude of complex antecedents of violence (e.g. mental health issues, drug abuse, homelessness, and employment status [Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002]), brief interventions in other domains have demonstrated significant effects with at-risk groups (e.g. Kaner et al., 2007). In Scotland, the most at-risk population for interpersonal violence perpetration and victimhood are young men (Leyland & Dundas, 2010; Scottish Government, 2012). The intervention must therefore access and engage with this group, and be meaningful to them. The objective of this review is to explore the existence of relevant programmes, and to identify key themes to inform the design of a VBI. Whilst initial plans are to design and evaluate a VBI with young men in Scotland undergoing treatment for an interpersonal violence injury, it is also expected that this review will inform further VBI designs with different populations in diverse contexts.

2. Methods

In assessing the evidence base for relevant interventions, search criteria specified that papers had to refer to brief interventions designed to address violence, and involve male participants. Other potential criteria (including participant ages, intervention location, intervention content

etc.) were excluded from the search in order to yield a wide selection of interventions from which to draw our evidence base.

The following search criteria were included; *violence* (Violen* OR Agress* OR Assault* OR Homicide OR Murder OR GBH OR Grievous Bodily Harm OR ABH OR Actual Bodily Harm), *intervention* (Interven* OR Program* OR Initiative), *intervention length* (Brief OR Rapid OR Short), and *gender* of participants (Male* OR man OR boy* OR men). All search criteria were necessarily met before generating a positive result. Three research databases (Web of Knowledge [601 papers], PubMed [7 papers], and PsycInfo [8 papers]) were searched for papers published in English before 11th March 2013, which yielded 553 titles after removal of duplicates. These titles were then independently reviewed by FGN, DJW, and CAG for relevance to the project, and an abstract was located for any title deemed relevant by any of the reviewers. This process yielded 79 abstracts, which were then analysed using the same review process as for the titles. Thirty-three abstracts were considered relevant to the project, and their full texts were located. Seventeen additional potentially relevant full texts were extracted from the reference lists of these papers. In total this process yielded 50 full texts which were read and analysed by FGN (see Figure 1).

[Figure 1]

3. Results

3.1 Violence Brief Interventions

Of the 50 full texts analysed, ten met criteria for a relevant VBI (i.e. sought to change violent behaviour or attitudes, was a one-to-one brief intervention, and involved male participants). Three of these papers described different stages of analysis for the same intervention (SafERteens), meaning that in total eight distinct VBIs were yielded. These are each summarised in turn below, before relevant points of interest from the remaining 40 non-VBI

papers are briefly noted. The review concludes by drawing together key themes from the interventions to inform the design of a bespoke VBI for young men in Scotland.

3.1.1 SafERteens

Three of the papers yielded from the review described the SafERteens intervention (Cunningham et al., 2009, 2012; Walton et al., 2010). This involved 726 participants (males and females, aged 14-18) who attended an emergency department in Flint, Michigan. Participants were only eligible for the study if they screened positively for past year alcohol use and aggression. In a randomised controlled trial, participants received one of the following three treatments; control (brochure with community resources), computerised brief intervention (CBI; 29 minutes), or therapist-assisted computerised brief intervention (TBI; 37 minutes). The intervention provided information to participants on how to avoid risky scenarios and behaviours, discussed the consequences of (non-) violent behavioural choices, and explored any discrepancies between current goals and behaviour. Participants also took part in role-playing scenarios and decision exercises, and were given personalised feedback from their screening which was compared to the normative behaviour of same-age peers. Follow-up surveys (3, 6 and 12 months) were administered in a public location of convenience to the participants, who were financially rewarded for each stage of research they completed. Research outcomes included self-report peer aggression and violence, violence involvement and consequences, self-efficacy in alcohol- and violence-related behaviours, and alcohol consumption and consequences. The authors reported significant decreases in the TBI condition compared to controls for serious participant aggression towards peers, and decreased serious victimisation from peers twelve months post-intervention. These significant differences were not seen in the CBI condition. However,

significant differences in the expected directions were seen in both intervention conditions after three months for self-efficacy in alcohol- and violence-related behaviours.

3.1.2 Boston Violence Prevention Project

De Vos and colleagues (1996) outlined the Boston Violence Prevention Project (VPP) which involved a psychoeducational violence-prevention counselling session given to male and female adolescent victims of violent assault (aged 12-17) admitted to a trauma centre (De Vos, Goetz, & Dahlberg, 1996). The paper discussed the intervention and baseline results, but did not include follow-up data. The intervention typically lasted between 45 minutes and two hours, and followed a number of steps. First, the violent incident was reviewed, before participant's conflict resolution strategies were discussed, and non-violent alternatives were introduced. Participants were then given information regarding the prevalence of violence and homicide amongst their population group in order to determine their vulnerability. Participants' coping skills and support systems were then discussed, before an action plan to ensure future safety was jointly agreed. The intervention finished by referring participants to relevant follow-up services. De Vos and colleagues argue that interventions of this kind should be empowering, such that participants come to realise they are agentic – and not helpless – in avoiding violence through nonviolent strategies and self-efficacy.

3.1.3 Brief motivation enhancement interview for adjudicated male perpetrators of intimate partner violence

Crane and colleagues (2013) reported an evaluation of a single-session brief motivational enhancement interview for men convicted of intimate partner violence (IPV) (Crane &

Eckhardt, 2013). The intervention was designed to increase IPV programme compliance, and to reduce recidivism. A 6-month follow-up revealed that participants who received the intervention had significantly improved programme attendance records compared to control participants, but that there was no significant difference in recidivism rates between the two conditions. The authors noted that the intervention seemed to be particularly useful for men who had a low readiness-to change.

3.1.4 Brief intervention for perpetration of IPV

Ernst and colleagues (2011) reported results from an IPV intervention in an emergency department that was designed to increase knowledge about IPV, and change attitudes and behaviour (Ernst, Weiss, Hobley, Medoro, Baker, & Kanter, 2011). The intervention included using a touch-screen computer, and watching a video of IPV. Although there was an overall improvement in IPV knowledge, perpetrators' knowledge scores actually became worse in the intervention condition compared to controls. There were no significant differences on the attitudes and behaviours scales.

3.1.5 Men's Domestic Abuse Check-Up (MDACU)

Mbilinyi et al (2011) described a telephone-delivered motivational enhancement intervention (MDACU; Men's Domestic Abuse Check-Up) which aimed to motivate substance-abusing male IPV perpetrators to seek treatment (Mbilinyi, Walker, Roffman, Zegree, Edleson, & O'Rourke, 2011). Participants were randomly assigned to either an intervention or control condition. In a 60-90 minute telephone call, participants were given personalised feedback from their responses to a baseline survey which included items examining their substance

abuse and IPV behaviours, the consequences of these, and their social norm beliefs. The rationale given for this was that perpetrators often misjudge others' behaviour, such that they are unaware that their own behaviour is non-normative. The intervention was designed to provide accurate prevalence feedback in order to address norm misperceptions and consequent behaviours. Follow-up evaluations (1 and 30 days) revealed a significant reduction in perceived social norms for both IPV and alcohol, and significantly less IPV in the intervention condition (30 day follow-up). There were no significant between-condition differences for treatment-seeking or substance abuse.

3.1.6 Brief motivational enhancement intervention for IPV in alcohol treatment settings

Schumacher and colleagues (2011) outlined a pilot study of a 90-minute IPV brief intervention delivered in alcohol treatment settings (Schumacher, Coffey, Stasiewicz, Murphy, Leonard, & Fals-Stewart, 2011). All participants met clinical criteria for alcohol abuse or dependence. The intervention used motivational interviewing to provide participants with personal feedback on their behaviour. Participants then discussed desired changes, reasons for change, planning steps to make desired change, discussed how participants would know if their plan was working and what could interfere with their plan, and how participants would respond if their agreed plan was not working. At 3- and 6-month follow-ups, participants demonstrated improvements in self-reported anger, aggression, and alcohol outcomes.

3.1.7 Brief motivational intervention for physically aggressive dating couples

Woodin and Leary (2010) reported findings from a brief motivational interview intervention with 50 physically aggressive student couples. After completing baseline surveys, participants were randomly allocated into either an intervention or control condition. The intervention was conducted individually for each member of the couple. Intervention participants received a 45-minute individualised intervention which targeted acceptance of psychological aggression, reduction in physical violence and its risk factors, consequences of violence, and alcohol use. The intervention provided personalised feedback on each of these topics, which was compared to averages for 'past college student samples' (Woodin & Leary, 2010, p374). Feedback was delivered in a non-confrontational manner, and was designed to generate discussion around behaviour change. Participants were requested to respond to their feedback, and responses which suggested a motivation to change were reinforced. Participants in both intervention and control conditions demonstrated a significant decrease in physical aggression over time, although this decrease was greatest for intervention participants. This decrease was greater for female than male participants, although females had higher baseline scores. Both conditions also showed a decrease in psychological aggression, although there was no significant between-condition difference for this measure.

3.1.8 VBI plus community case management services

Aboutanos and colleagues (2011) compared a VBI, with VBI plus community case management services (Aboutanos et al., 2011). They had intended to include a control group who did not receive any intervention, but this was prevented by their Ethics Committee due to the expected utility of the VBI. Participants were 75 trauma patients (males and females, aged 10-24) who had been intentionally injured. The intervention was described as brief, but took six hours to deliver. This took the form of an in-hospital intervention that was based on

motivational interviewing, psychoeducation, and cognitive behavioural therapy. This involved a review of the violent incident, exploration of conflict resolution strategies and nonviolent alternatives, information on the prevalence of violence and homicide among peers, discussion of coping strategies (e.g. social and family support systems), safety planning, and referral for community based services. The authors concluded that an in-hospital VBI was significantly supplemented by wraparound services resulting in risk factor reduction for emergency department re-visit and alcohol consumption after six weeks.

3.2 Relevant points of interest from non-VBI papers

Of the fifty full texts reviewed, ten met the pre-defined review criteria (brief one-to-one interventions for males involved in interpersonal violence). Although the remaining forty papers did not meet these criteria, many of them described interventions which incorporated components relevant in the design of a VBI. Pertinent points of interest from these papers are described briefly below.

3.2.1 Reviews of interventions for reducing aggression and violence

In a review of effective treatments for aggression and violence, McGuire (2008) concluded that "personal violence can be reduced by psychosocial interventions" (p2577), but highlighted problematic issues in researching this topic. First, studies which examine violent re-offending as an outcome measure are frequently underpowered, due to the relatively low rates of violent re-offending (or at least as reported to criminal justice). The paper argues that multimodal interventions which address several issues concurrently have the biggest effect

sizes, but are also problematic to evaluate due to the challenge of disentangling the efficacy of their various components.

McMurran (2012) conducted a rapid review of alcohol-related violence interventions. In a sense, this was a similar exercise to the current review, but the search criteria excluded sexual violence and IPV, specifically included alcohol, and did not specify the brevity of the intervention. The review only identified two interventions; SafERteens (previously discussed in 3.1.1.) and COVAID (Control of Violence for Angry Impulsive Drinkers) which is a 10-session intervention designed to reduce alcohol-related aggression (McMurran & Cusens, 2003). However, only six men completed the latter programme, preventing assessment of intervention effectiveness. A single-session version (SS-COVAID) was subsequently evaluated by Goodall and colleagues (2012) in a facial trauma clinic (Goodall et al., 2012). Hazardous drinkers who were victims of interpersonal violence were randomly assigned to receive either SS-COVAID or an ABI. After twelve months both groups displayed a significant decrease in negative drinking outcomes, but neither group demonstrated a reduction in self-reported aggression.

3.2.2 The impact of ABIs on aggression and violence

Choo and colleagues (2013) reviewed three ABI initiatives delivered in emergency department settings (Choo, McGregor, Mello, & Baird, 2013). They report that AUDIT (Alcohol Use Disorders Identification Test; Babor, Higgens-Biddle, Saunders, & Monteiro, 2001) scores only decreased for male participants who had *not* been involved in violence. The authors conclude that for violent populations, alcohol use may be viewed positively in various ways and thus be resistant to change. In a related study, Goodall et al. (2008) evaluated an ABI for patients with hazardous drinking levels (≥ 8 AUDIT) attending an oral

and maxillofacial surgery (Goodall et al., 2008). The same research team had previously reported that 78% of patients attending their surgery drank alcohol to a hazardous level (Oakey et al. 2008). In a randomised control trial, participants either received a nurse-led ABI, or a brochure regarding alcohol guidelines (control). Twelve months post-intervention, participants in the intervention condition displayed significantly fewer drinking days and heavy drinking days than participants in the control condition. The authors reported that the participants with the highest AUDIT scores at recruitment demonstrated the most degree of change, which the authors noted was an unusual finding for an ABI. They suggested that this finding was due to the role of alcohol in participants' injuries, such that the injuries themselves may have acted as an intervention to motivate change in drinking behaviour. Oakey and colleagues (2008) noted that the relatively low face-to-face follow-up rates (59% at 3 months and 69% at 12 months) were poorer than those achieved by Smith et al (2003) who used telephone to follow-up their ABI study (Smith, Hodgson, Bridgeman, & Shepherd, 2003).

Smith et al.'s (2003) ABI study was also based in oral and maxillofacial surgeries, and demonstrated a significant decrease in alcohol use at three and 12 months for all participants, and a significantly greater decrease for intervention compared to control participants. Due to low conviction rates for assault, they suggest that medical settings are the most fruitful in accessing participants involved in violence. They argue that a maxillofacial setting in particular yields a concentration of young male alcohol abusers who are exposed to violence. Whilst this population is typically challenging to engage with due to intoxication, patients typically return to oral and maxillofacial surgeries 5-10 days after their initial visit for a follow-up at which they are usually sober and potentially inclined to alter behaviour. As Johnson et al (2007) note, emergency medical settings may provide an ideal setting for a 'teachable moment' for behaviour change (Johnson, Bradshaw, Wright, Haynie, Simons-

Morton, & Cheng, 2007). Smith et al (2003) also suggest that maxillofacial nurses are well placed to combine traditional care with brief interventions, such that little additional training is needed and extra workload minimised. Likewise, Oakey et al (2008, p102) conclude that it is "feasible for nursing staff to deliver brief interventions in a busy maxillofacial trauma clinic".

Murphy and colleagues (2009) reached similar conclusions about the utility of oral and maxillofacial surgeries for brief violence interventions, arguing they are an ideal setting for proactive intervention strategies which target root causes of behaviour (Murphy et al., 2009). They described results from an interview study with injured youth attending an oral and maxillofacial surgery in Los Angeles. They found that 59% of facial injuries with adolescents in the clinics were assault-related. The majority of their interviewees stated their unwillingness to participate in multi-session interventions, leading the authors to argue that "interventions need to be brief if they are to engage these at risk youth" (Murphy et al. 2009, p2). Finally, Watt and colleagues (2008) described a randomised control trial in which participants convicted of violent offences were allocated to either ABI or control conditions (Watt, Shepherd, & Newcombe, 2008). After twelve months, participants who received the ABI were significantly less likely to have been injured than control participants, but there were no significant differences on the alcohol measures, or in re-offending rates.

3.2.3 Follow-up services

Becker et al (2004) and Shibru et al (2007) outlined an intervention in which youths with violent injuries were provided with intensive follow-up services (e.g. assistance with jobs, school, and court) for one year (Becker, Hall, Ursic, Jain, & Calhoun, 2004; Shibru, Zahnd, Becker, Bekaert, Calhoun, & Victorino, 2007). Their analyses suggest that intervention

participants displayed a drop in criminal involvement compared to control participants after 6 and 18 months. In a similar study, Cooper et al (2006) used a randomised controlled trial to evaluate an initiative which provided intensive psychosocial follow-up services to repeat victims of violence (Cooper, Eslinger, & Stolley, 2006). Recruitment was again completed in a medical setting. The authors reported that participants in the control arm were four times more likely to be convicted of violent crime than those in the intervention arm, although differences in post-intervention evaluation times make this statistic difficult to interpret. Finally, Zun et al (2006) reported an evaluation of an emergency department-based programme in which victims of interpersonal violence were given case management for 6 months post-injury (Zun, Downey, & Rosen, 2006). The authors noted a significant reduction for intervention participants in self-reported re-injury, but not in state-reported re-injury, self-reported arrest, or state-reported incarcerations compared to control participants.

3.2.4 Gender norm interventions

Barker et al (2010) reviewed 58 studies which tried to positively alter gender norms (including violent norms) in males (Barker, Ricardo, Nascimento, Olukoya, & Santos, 2010). They note that men are complex individuals who act under the influence of gender and social norms, such that the interventions which are most successful in changing problematic masculine behaviour "reach beyond the individual level to the social context" (*ibid* p539). The review argues for a social constructionist approach such that gender and masculinity roles should be considered socially constructed rather than biologically-driven, and may therefore by socially re-constructed.

3.2.5 Unintended detrimental effects with low risk participants

Simon et al (2008) reported findings from a school-based multisession violence prevention programme (Simon et al., 2008). The evaluation used survey items to record participants' various individual social norms including aggression and non-violence. The authors concluded their paper by noting that violent attitudes amongst high risk students decreased post-intervention, but that they actually increased for low risk students, possibly through exposure to violent norms. Failure to split the analysis in this way may account for null findings in other intervention programmes, and caution should be taken in intervention design to prevent unintended effects with low risk participants.

3.3 Key Themes

There were a number of prominent themes running through the papers included in this review. These included motivational interviewing as a non-confrontational path to change, use of a medical setting for recruitment and/or intervention, the participation of victims of violence as a means of future violence prevention, the provision of social norms information to correct normative misperception, the role of substance abuse (particularly alcohol), and the use of technology for intervention facilitation.

3.3.1 Motivational Interviewing

Many of the papers included in this review used a form of motivational interviewing as their method of intervention (e.g. Aboutanos et al. 2011; Crane et al. 2013; Goodall et al. 2008; Mbilinyi et al., 2011; Schumacher et al. 2011; Smith et al. 2003; Woodin & Leary, 2010). The technique is particularly advantageous in brief interventions, due to its ability to quickly

engage with participants and facilitate routes to change. Motivational interviewing has been proven as a successful means of intervention in the context of alcohol, in which ambivalence regarding behavioural change can be explored and overcome (Bien et al., 1993; Rollnick & Miller, 1995). Furthermore, research included in the current review suggests that brief motivational interviews can be utilised in the domain of violence, used in medical settings, and may be compatible with computer-assisted interventions.

3.3.2 Medical Setting

Of the eight VBIs reviewed, four took place in emergency or trauma medical settings. The articles provided several reasons for this. The first is that medical settings are an effective way of interacting with individuals involved in violence, albeit as victims (see 3.3.3). Whilst criminal justice contexts may be able to provide some access to violence perpetrators, few assaults actually result in criminal convictions (Smith et al 2003), and legal barriers to conducting research may constrain research design. De Vos and colleagues (1996) also contend that a medical setting is an ideal location for changing the 'narrative of violence', because participants are removed from the context in which the violence occurred. Patients being treated for the medical repercussions of violence may also be in a 'teachable moment' in which aversive experiences create the conditions for change contemplation (Johnson et al. 2007; Smith et al. 2003). Whilst recruiting and treating participants in an emergency medicine setting comes with its obvious challenges, the evaluation literature suggests that these may be overcome (Ernst, 2001).

One possible compromise between the advantages of locating an intervention within a medical context and its challenges are to work within oral and maxillofacial surgery clinics (Goodall et al. 2008; Murphy et al. 2009; Oakey et al. 2008; Smith et al. 2003). Although

none of the interventions which met our VBI criteria used this setting, several of the reviewed papers discussed their utility. For example, Smith et al (2003) and Oakey et al (2008) argued that such clinics are well-placed to combine traditional injury care with brief motivational interventions. Murphy and colleagues (2009) also reported that 59% of injuries in US facial trauma clinics were assault-related, and argue that this location is ideal for proactive intervention strategies. Furthermore, whilst Oakey et al. (2008) found that the majority of oral and maxillofacial injury patients consume alcohol at a hazardous level (78%), when they "attend for review 5-10 days after injury they are usually sober and, potentially, particularly susceptible to modifying behaviour" (Smith et al. 2003, p44).

3.3.3 Victims

Implicit in the argument for locating a VBI within a medical context is a recognition that the likely participants will be victims of violence. Working with perpetrators requires integrating the intervention within criminal justice which introduces several constraints, such as the underreporting of assaults to law enforcement agencies. Furthermore, the risk factors for violence perpetration and victimisation overlap considerably, as do the populations of perpetrators and victims (Menard, 2002; Reilly, Muldoon & Byrne, 2004). As Corbin and colleagues (2001) argue, experience of violent assault is a strong predictor of future acts of violence by victims (Corbin, Rich, Bloom, Delgado, Rich, & Wilson, 2001; Rivara, Shepherd, Farrington, Richmond, & Cannon, 1995; Widom, 1989), and for particular demographic groups, victims believe that they must respond violently to injury to prevent future victimisation (Poses, Rich, & Stones, 1996). More optimistically perhaps, the aversive experience of becoming a victim of violent assault may create an opportunity for a 'teachable moment' in which people choose to change an element of their behaviour (Johnson et al.

2007; Smith et al. 2003). As a consequence of these factors, conducting a VBI with victims of violent assault is an attractive option, and many of the papers included in this review worked with this population (e.g. Aboutanos et al. 2011; Becker et al 2004; Cooper et al. 2006; Cunningham et al. 2012; De Vos et al. 1996; Zun et al. 2006).

3.3.4 Alcohol

Alcohol can act as a risk factor for both violence perpetration and victimisation (McMurran, 2013). McMurran (2012) notes that interventions can focus on alcohol with violence treated as an adverse consequence, or, programmes can focus on violence with a recognition that alcohol may act as a precipitating factor. The co-morbidity of alcohol and violence is reflected in the number of reviewed initiatives which tried to address alcohol issues to achieve violence prevention. For example, the SafERteens programme (Cunningham et al. 2009, 2012; Walton, 2010) required participants to have had past year alcohol use, Schumacher et al's (2001) intervention took place in an alcohol treatment setting, and Mbilinyi and colleagues (2011) worked with substance (including alcohol)-abusing IPV perpetrators. Whilst addressing problematic drinking is therefore considered an important route to violence prevention, Choo et al (2013) note in a review of three ABI initiatives in emergency departments that AUDIT scores only decreased for male participants who were *not* involved in violence. They argue that this is a consequence of heavy alcohol use being viewed as positive within certain violent population groups. Furthermore, whilst Goodall and colleagues (2012) achieved a decrease in negative drinking outcomes for victims of interpersonal violence who had hazardous drinking scores, this did not correspond to a reduction in self-reported aggression. Similarly, Watt et al (2008) found that an ABI with violent offenders successfully decreased alcohol outcomes, but not re-offending rates. These

results suggest that whilst alcohol in undoubtedly a risk factor for violence perpetration and victimisation, interventions which solely focus upon alcohol are unlikely to be successful in moderating violent behaviour.

3.3.5 Social Norms

A number of the reviewed programmes included a social norms component. For example, the SafERteens intervention provided personalised feedback comparing own behaviour to the normative behaviour of same-age peers. Likewise, Mbilinyi and colleagues (2011) provided participants with personalised feedback regarding IPV and substance abuse norms, and Woodin and Leary (2010) gave personalised feedback on aggression, consequences of aggression, and risk factors, before comparing these to peer averages. Two other interventions (Aboutanos et al. 2011; De Vos et al. 1996) provided participants with the prevalence of violence amongst peers, but did not seem to explicitly compare this to personal behaviour. The rationale behind the social norms approach is in part due to evidence demonstrating an overestimation in the prevalence of peer perpetration of IPV among perpetrators (Abbey et al. 2007; Neighbors et al. 2010). It is worth noting however that evidence from social norm interventions in other domains suggest that providing *descriptive* normative information (what peers do) without combining this with *injunctive* normative information (what peers think one ought to do) may be potentially counterproductive (Paul and Gray 2011). A further note of caution when conducting and evaluating a social norm intervention comes from Simon et al (2008). They found that whilst high risk students decreased their attitudes to aggression post-intervention, the opposite result was found for low-risk participants. The mixed results for high and low risk students were possibly the result of low risk students' exposure to more violent attitudes. Intervention programmes must

therefore be thoughtful in their implementation (and analysis) of a social norms approach in order to prevent unintended detrimental effects.

3.3.6 Computer-Assisted Interventions

As the SafERteens intervention (Cunningham et al. 2009, 2012; Walton, 2010) demonstrated, VBIs may be assisted by the use of computers (see also Ernst et al. 2011). Recent technological advances – particularly the advent of tablet computers – have increased the practical utility of this approach. Advantages include reducing paperwork (which may get misplaced or stored insecurely), providing an engaging format for young people, and the ability to present immediate personalised feedback to participants. This latter capability is particularly important for social norm interventions. However, results from the SafERteens papers suggest that therapist-assisted computerised brief intervention (TBI) outperformed a computer-only based intervention. It therefore seems that whilst the use of this technology can be useful in several ways, it may be most effective when combined with face-to-face contact with a trained professional.

3.3.7 Evaluation Design

The optimal research design when evaluating interventions is a randomised control trial. This requires participants to be randomly assigned to one of two or more experimental conditions. The evaluation can therefore determine if any changes in attitudes or behaviour are a consequence of the intervention, or whether these would have occurred irrespectively. Furthermore, to examine change an adequate follow-up evaluation must be implemented. Research evaluations which strive to follow-up VBI participants meet a number of practical

challenges. Participants will often lead chaotic lives which are blighted by substance abuse, incarceration, and hospitalisation leading to high attrition rates. One method identified in this review to decrease follow-up 'no-shows' is to conduct post-intervention surveys remotely (e.g. over the telephone; Smith et al. 2003) rather than in person. An alternative used by the SafERteens intervention was to meet in a location convenient to participants (e.g. a local coffee shop), and to compensate participants monetarily for each stage of completed follow-up. However, these approaches require greater resources than some programmes may have to offer. No matter the mode of participant contact, it is vital to sustain long-term follow-up. The importance of this was highlighted by Smith et al (2003) and Goodall et al (2008) who reported significant changes in their primary outcome measures after twelve and six months respectively, which were not visible at three-month follow-ups. Finally, whilst the inclusion of behavioural measures (e.g. arrests, hospital admissions) in addition to self-report data can greatly strengthen the validity of evaluations, relying solely upon any one of these indices may result in underpowered studies due to low recidivism and re-injury rates (McGuire, 2008). It is therefore recommended to analyse multiple forms of data outcomes when evaluating such interventions.

4. Conclusion

This paper reported a rapid review of research literature examining brief interventions into violence to inform the evidence-base for the design of a VBI. The initial 553 papers which met the search criteria of aiming to reduce violence and being a brief intervention with male participants, were reduced to 50 articles of relevance. Of these papers, eight distinct VBIs were identified. Whilst it is recognised that a VBI will unlikely provide a holistic solution to the multitude of complex antecedents of violence, the research literature suggests that such

interventions can play a positive role in violence prevention. A number of key themes were drawn from the reviewed papers including the effectiveness of brief motivational interviewing, the utility of social norms approaches for behaviour change, the potential to engage with victims of violence in medical settings, the importance of addressing alcohol issues in relation to interpersonal violence, the advantages of computer-assisted interventions, and the need for adequate follow-up evaluation as part of a randomised control trial. The results of this review have informed the design of a VBI project which is under evaluation.

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