AN EVALUATION OF SEXUAL VIOLENCE PREVENTION PROGRAMMES AT UNIVERSITIES

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EXECUTIVE SUMMARY

Sexual violence on university campuses is a prevalent public health issue with serious consequences for physical and mental health, one which student unions and university officials have tackled in various ways. This report aims to review the effectiveness of different sexual violence prevention policies and programmes in universities as well as offer policy recommendations to those designing intervention strategies. The included interventions are discussed thematically. Specifically, this report reviews interventions targeting a single gender, education, bystanders, alcohol use, and prior victims, and considers general factors affecting programme performance, such as delivery and duration.

Sexual violence is notoriously difficult to measure and studies opted for a variety of proxy measures. We discuss issues with many of these measures throughout the report. The literature itself has a narrow focus and largely ignores male and Lesbian, Gay, Bisexual, Trans and Queer (LGBTQ) victims of sexual violence. The participants in the studies are mostly Caucasian and are overwhelmingly from universities in the United States (U.S.), making it difficult to generalise the findings to other countries. Despite these limitations, however, this report offers some conclusions as to what an effective intervention entails.

Many results are repeated throughout the thematic sections. Sexual violence prevention programmes need to be targeted to their audience. The need for a target audience is reinforced by the conclusion that single-gender programmes are more effective than mixed-gender programmes, while women with a history of sexual violence are best addressed with targeted interventions. However, longer, more frequent programmes are better able to accommodate a wider range of outcome goals and audiences.

New technologies such as online interventions are a promising platform for intervention programmes. Online programmes have the advantage of being cost-effective, easily tailorable, and less time-intensive for students and educators. Such programmes can be used to reach out to those with a history of sexual violence, who may be more hesitant to utilise in-person resources.

Finally, those designing intervention programmes should consider the context of their particular university. For instance, the literature on prosocial bystander interventions indicates the importance of the existing social norms and community environment to programme success. Likewise, the alcohol culture at universities is significant risk factor in this context, especially for women who have previously been assaulted.

While many findings are provisional and limited, and further research into the effectiveness of different types of intervention is required, there are broad conclusions that can be drawn regarding the impact of audience demographics and delivery methods on the effectiveness of interventions. These are relevant and useful for policymakers and those organising interventions at universities to consider when developing sexual violence prevention strategies.

INTRODUCTION

In recent years, there has been an increase in attention regarding sexual violence on university campuses. This has been demonstrated by a variety of high-level actions taken worldwide, including for instance the implementation of the Campus Sexual Violence Elimination Act by the United States (U.S.) Congress in 2013 and the development of a sexual violence task force across United Kingdom (U.K.) university campuses in 2015 (Dandridge, 2015). However, the attempt to address sexual violence through miscellaneous interventions or programmes may not be enough, as existing interventions are often not researched thoroughly and the extent of their effectiveness is not always clear. As such, this report aims to answer the question: *What intervention programmes are effective in reducing sexual violence on university campuses?*

This report defines sexual violence as coerced or forced sexual conduct that includes some degree of physical contact, and prevention interventions are programmes that aim to reduce and prevent the occurrence of sexual violence. There are a variety of different intervention programmes universities can employ that focus on attitudinal and behavioural changes, both of which will be examined in this report to provide a more comprehensive analysis.

As sexual violence is a public health issue in society with serious negative physical, emotional and psychological consequences, it needs to be addressed urgently (Krebs, Lindquist, Warner, Fisher & Martin, 2007). University-aged students are a population at high risk of experiencing sexual violence, with estimates of the incidence of sexual violence varying widely. It is essential that the intervention programmes used by universities are evidence-based and effective in preventing sexual violence to enable universities to be a safe environment for all students.

In this report we will discuss in turn four types of intervention (single-gender interventions, bystander interventions, education interventions, alcohol interventions) and cross-intervention factors (delivery, instruction, duration of the intervention and the effect of interventions on sexual re-victimisation). Our discussion will conclude with a list of policy recommendations and a discussion of limitations within the literature and of our research for this report.

METHODOLODY

This policy report sought to review evaluations of university policies and programmes in terms of their effectiveness in preventing sexual violence among students. This report sought to answer: *What intervention programmes are effective in reducing sexual violence on university campuses?* The research question was framed using the following 'PICO' framework:

> *Population*: University students in Organisation for Economic Co-operation and Development (OECD) countries
>
> *Intervention:* University policies and programmes which attempt to prevent sexual violence
>
> *Comparison:* Before and after policy/programme implementation; Universities that have implemented policies/programmes compared to universities that have not
>
> *Outcome:* Knowledge, attitudes, and behaviours regarding sexual violence; Rates of sexual violence

We searched the following platforms for peer-reviewed articles, university dissertations, and grey literature: Campbell Collaboration, Prospero, Search Oxford Libraries Online (SOLO), Applied Social Sciences Index and Abstracts (ASSIA), The International Bibliography of the Social Sciences (IBSS), Proquest Dissertation & Theses, Scopus, Web of Science, Medline (Ovid), The British Education Index, PsychINFO, Education Resources Information Center (ERIC), The Cochrane Library, and Google Scholar. The following search terms were used: *University students, college students, tertiary students, pupils, campus*, *policy, interventions, measures*, *initiatives, sexual violence, rape,* and *sexual offenses.* The authors searched two databases each. The broad search terms were used and individualised according to the specific indexing of each database, utilising appropriate subject heading terms where available.

The search results indicated a large number of reviews (systematic reviews, meta-analyses, and review-of-reviews), covering different aspects of the research question. These reviews had varying strengths and limitations. Due to the large number of existing and recent reviews found, a review-of-reviews was conducted. Studies on sexual violence, written in English, and based in OECD countries were included regardless of publication status. Articles not in English, studies conducted in non-OECD countries, studies that did not analyse sexual violence (including studies that only investigated sexual harassment), studies that did not analyse interventions in universities or colleges, and studies with a sample size of less than 90 were excluded.

This literature search produced 10 eligible systematic reviews, 3 meta-analyses, and 3 review-of-reviews. The discussion of these reviews and their constitutive primary studies make up the bulk of this report. One section, 'Cross-intervention characteristics: duration, delivery, and instruction,' is supplemented in its discussion by a primary study not referenced in a literature review: Potter et. al (2016). We opted to include this study based on its recency, large sample size (3,643 undergraduates), and valuable contribution to understanding the effects of various delivery methods on intervention outcomes. Table 1 below summarizes which reviews contributed to each section of our report. All other citations discussed reference primary studies included in one of the reviews below (except where otherwise noted).

Table 1. Included reviews by topic covered

Mixed-gender vs. single-gender programmes	
Newlands and O'Donohue (2016)	*Systematic review*
Arango et al. (2014)	*Review-of-reviews*
Garrity (2011)	*Sysematic review*
Content and instruction of educational intervention programs	
DeGue et al. (2014)	*Systematic review*
Fellmeth et al. (2013)	*Meta-analysis*
Bystander interventions	
Katz & Moore (2013)	*Meta-analysis*
Fenton et. al (2015)	*Systematic review*
McMahon (2015)	*Systematic review*
Alcohol intervention policies	
Tait & Lenton (2015)	*Systematic review*
Lippy & DeGue (2016)	*Review-of-reviews*
Cross-intervention characteristics: duration, delivery and instruction	
Vladutiu, Martin & Macy (2011)	*Review-of-reviews*
Anderson (2003)	*Meta-analysis*
Intervention programmes and sexual revictimisation	
Söchting, Fairbrother, & Koch (2004)	*Systematic review*
Newlands and O'Donohue (2016)	*Systematic review*
Limitations	
Banyard (2014)	*Review-of-reviews*

MIXED-GENDER VS. SINGLE-GENDER PROGRAMMES

The most common form of sexual violence is perpetrated by men against women (Ministry of Justice, 2013); this is also the form of sexual violence that most of the included reviews focus on. As such, the sexual violence prevention initiatives evaluated by these reviews have different target outcomes for men and women: aiming to prevent male perpetration of sexual violence and female victimisation. Given this difference in aims, many researchers have questioned the effectiveness of prevention programmes aimed at mixed-gender groups and in particular whether these compromise the focus and clarity of programmes.

The literature reviewed showed a broad consensus that prevention programmes tailored to single-gender participant groups are more effective than programmes aimed at mixed-gender groups. Vladiutu, Martin, and Macy (2011) found in their review of eight reviews that single-gender programmes were broadly more effective in increasing prosocial bystander behaviour and reducing adherence to rape myths. Similarly, Newlands and O'Donohue (2016) reviewed 28 studies in order to compare prevention programmes for men, risk-reduction programmes for women, and mixed-gender programmes focused on either attitudes to rape or bystander behaviour. Out of these, there were five mixed-gender programmes, of which only three showed a significant difference between the treatment and control groups in rates of reported victimisation. These three studies all have substantial methodological limitations for the current review: one focuses on assault as a whole rather than specifically sexual violence, one does not examine rates of perpetration, and the final study shows a vast difference in outcomes between those with and without a history of sexual victimisation. In comparison, the single-gender prevention programmes analysed in this review, while having some minor flaws in methodology, demonstrated clear positive effects upon reported attitudes to rape, bystander behaviour, and reported victimisation. This review therefore concluded that separate gender programmes were the most effective. Specifically, the reviewers found that the interventions targeted towards men that were most effective in reducing reported victimisation and perpetration aimed to explore issues of consent, whereas the most effective programmes for women focused on self-defence and alcohol use.

One study outside the scope of the included reviews exemplifies the difficulties in mixing genders and programme aims well. Bradley, Yeater, and O'Donohue (2009) combined aims to prevent male perpetration and female victimisation in a mixed-gender programme aimed at 177 students, of which 37% were men and 63% were women. The programme consisted of a single, 50-minute session, divided into five sections of which some focused on perpetration and others on victimisation. The study found that compared to the randomised control group, the session was ineffective in changing women's assault-related knowledge and assertive behaviour, and only partially effective in increasing men's empathy for victims and decreasing their adherence to rape myths. Bradley, Yeater, and O'Donohue (2009) concluded that the conflict of aims in the mixed-gender sessions contributed to their lack of effectiveness, although, as the authors themselves concede, this was likely exacerbated by the brevity of the intervention session.

More recent empirical studies have suggested other reasons for the lack of efficacy of many mixed-gender prevention programmes, such as different social conditioning for men and women, leading to different responses to prevention approaches. Moynihan et al. (2015) measured the effects of a workshop encouraging bystander intervention among a mixed-gender group, a multi-session version of the 'Bringing in the Bystander' programme. These effects were compared to that of a randomised control group who were only exposed to a social media campaign, and the results were analysed according to different demographics. They found that for women, the workshop was more effective than the social media campaign in increasing bystander interventions after 12 months, but for men there was no difference between the effects of the two

programmes. Though the study was limited in scope and could not posit any specific reasons for this disparity, it is still useful as it suggests differences in the ways in which men and women respond to various prevention programme strategies, and therefore, highlights the potential efficacy of programmes designed around single-gender groups.

Single-Gender Programmes

As discussed above, the aims of single-gender intervention programmes vary according to the gender they are aimed at. Male-only intervention programmes aim to alter male perpetrator behaviour. In contrast, women-only programmes focus on reducing the risk of victimisation. There is concern that such intervention programmes blame women for their victimisation, and take away responsibility from the perpetrators. In an attempt to reduce the possibility for such victim-blaming perceptions, women-only intervention programmes are usually called risk-reduction programmes (Lonsway et al., 2009). In this same context, male-only interventions that aim to reduce perpetration of violence by males are referred to as sexual violence prevention programmes (Lonsway et al., 2009). A further difficulty of implementing such programmes is the potential for the exclusion of students who do not identify as male or female or whose gender identity differs from their biological sex, though non-binary and transgender students often face unique risks of sexual violence that such programmes may not be equipped to address. As discussed later in this report, the lack of available evidence regarding prevention and risk-reduction programmes for Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) individuals is a serious limitation of the literature.

An analysis of the effectiveness of male-only intervention programmes presents difficulties as these tend to be much more variable in terms of content, delivery method, and aims as compared to female-only programmes, which largely take the form of risk-reduction classes. Some provisional outcomes have been suggested, however. For instance, Newlands and O'Donohue (2016) suggest that bystander initiatives work better with male groups as it frames them as potential allies rather than potential rapists, therefore, providing, "an opportunity to target attitudes and behaviours while decreasing the likelihood of fostering backlash or animosity on the part of the participants." This is, however, only a theory, and requires further evidence before it can be considered as a strategy for creating programmes. Garrity (2011) reviewed seven studies that focused on college-aged men, reporting that these programmes all reduced rape-myth acceptance and self-reported likelihood of perpetration. Some studies also reported an increased understanding of the legal definition of sexual assault. However, of the seven studies, only two demonstrated a sustained effect on these outcomes after five months or longer. As Garrity points out, this was due to the limited methodological scope of the other five studies rather than a consequence of the programmes themselves: These studies simply did not have a long enough follow-up to measure sustained effects. Nevertheless, this limits the conclusions that can be drawn regarding the sustainability of these programme effects.

At least one intervention programme aimed solely at men conducted after Garrity's (2011) review has shown longer-term effects (>6 months) on perpetration and bystander behaviour. As reviewed by Newlands and O'Donohue (2016), Salazar, Vivolo-Kantor, Hardin, and Berkowitz (2014) trialled an online programme called RealConsent aimed at heterosexual and bisexual men, which consisted of didactic sections, interactive activities, and a serial drama aimed at showcasing positive and negative examples of behaviour. Seven hundred and forty-three students responded to the initial survey, of whom 215 completed all of the modules and follow-up surveys, which, as Newlands and O'Donohue highlight, limits generalisability. The study found that this programme resulted in increased self-reports of bystander intervention relative to the control group after six months, and improved knowledge of and attitude towards consent. Though the criticisms of Newlands and O'Donohue are valid in relation to the attrition rate, the

study does demonstrate longer-term success, at least for those participants who completed the programme. Though more rigorous studies of the RealConsent programme are necessary, we can provisionally conclude that certain male-only prevention programmes are effective in combatting sexual violence.

The number of existing male-only programmes that have been sufficiently evaluated is few. Additionally, as highlighted by Senn (2013), attempts at implementing male-only programmes have been difficult due to participant recruitment issues and lack of positive results. Hence, the aims of women-only interventions are usually to increase the ability of women to resist sexual violence or to increase their perception of risk behaviour. In their review-of-reviews of interventions for all types of violence against women, Arango, Morton, Gennari, Kiplesund and Ellsberg (2014) found that the majority of interventions for non-partner sexual abuse were targeted towards female college students in high income countries. Moreover, out of 17 included studies, the authors identified only two effective interventions. These studies were by Marx, Calhoun, Wilson and Meyerson (2001) and by Hanson and Gidycz (1993), which both aimed to increase protective measures that could be taken by women. Additionally, both studies utilised a video produced by Hanson and Gidycz (1993) of a dramatised acquaintance rape. In Hanson and Gidycz's (1993) evaluation with a non-randomised control group, the video was followed by a group discussion of possible risk-reduction tactics and then by another video with the same characters that demonstrated the use of these tactics. The topics were extensively discussed and there was a further discussion about facts and myths regarding sexual violence (e.g., 'most rape victims are attacked by strangers'). The results showed that, among participants without prior experiences of victimisation, those who underwent the intervention had a 6% victimisation rate during the nine-week follow-up period, while the equivalent rate for the control group was 14%. This statistically significant difference did not occur among participants who had prior experiences of victimisation. Marx et al. (2001) however modified the approach slightly and found it to be effective in reducing the incidence of re-victimisation. These two studies and the general implications of prior sexual victimisation on the effectiveness of prevention programmes will be discussed in detail later in this report. Overall however, this intervention involving a specially designed video as the basis for group discussion on risk-reduction techniques is a promising, effective programme. Nevertheless, this type of intervention was the only one found to be effective in this review-of-reviews, with the majority of the interventions being found to be ineffective.

In their review of risk-reduction programmes for women, Newlands and O'Donohue (2016) identified 16 eligible studies. Only a few were found to have positive results including the Hanson and Gidycz (1993) study discussed above. Another intervention highlighted as being effective was evaluated by Hollander (2014) in a non-randomised evaluation. It was built on the Assess, Acknowledge, Act (AAA) theoretical model first developed by Rozee and Koss (2001), who suggested that an effective risk-reduction programme should teach women to assess possible danger cues, overcome obstacles that may prevent them from acknowledging these cues, and provide them with self-defence skills to enable them to act and resist sexual violence in a situation where this is necessary. The Hollander (2014) programme included an intensive 30-hours of contact across a ten-week period, and focused on both physical and verbal resistance techniques for instances of both stranger and acquaintance violence, and on detecting risk situations and identifying potential obstacles to resistance. The sample consisted of 107 students in the self-defence programme and 169 students in the comparison group. The results demonstrate that at the one-year follow-up, those who took part in the self-defence programme had decreased levels of sexual victimisation and higher confidence in their ability to defend themselves relative to the comparison group who did not take part in the self-defence programme. Additionally, they experienced fewer attempts at sexual violence, defined as any, "unsuccessful attempt at sexual intercourse using force, threat of force, or alcohol/drugs" (Hollander, 2014, p. 257).

Senn et al. (2015) conducted a randomised controlled trial to evaluate an additional successful risk-reduction programme, which is also based on the AAA theoretical model. After extensive testing and piloting, they redeveloped their initial AAA programme to the Enhanced Assess, Acknowledge, Act Sexual Assault Resistance programme (EAAA), which consisted of four three-hour components, adding up to a total of 12 hours for the programme. The first component, 'Assess', focused on rape myths, statistics, different types of risk and risk situations, and danger indications. The second component, 'Acknowledge', aimed to increase acknowledgement and identification of danger and coercion tactics, as well as discuss potential emotional barriers that women may face when attempting to resist sexual violence or coercion from an acquaintance. The final component, 'Act', discredited self-defence myths, provided an overview of useful sexual violence resistance strategies (both verbal and physical), examined potential tactics to overcome the emotional obstacles and provided self-defence training using feminist Wen-Do self-defence. The additional fourth component, 'Sexuality and Relationships', provided a further arena for the participants to receive information about sexual activities and safe sex to establish methods for sexual communication as well as to examine personal sexual values. Care was taken to incorporate aspects from the first three components into the fourth. Women were randomised to receive the intervention (n=451 women) or not (n=442 women). Both the intervention and control groups were given access to brochures with sexual violence information and advice. The researchers found that one year after the intervention, the risk of sexual violence was 5.2% for the students who underwent the resistance programme, and 9.8% for the control group. The absolute risk-reduction attributed to EAAA was thus 4.6%. In other words, 'only 22 women would need to take the programme to prevent one additional rape from occurring within one year after participation' (Senn et al., 2015, p. 2331). This implies that the resistance programme was able to maintain its positive effect after a year without any additional booster meetings taking place. The fact that the EAAA programme was effective also highlights that positive outcomes can be achieved in 12 hours in comparison to Hollander's (2014) 30 hours

While these findings provide support for the underlying assumptions and ideas of the AAA framework as first outlined by Rozee and Koss (2001), an evaluation by Gidycz et al. (2015) of a further resistance programme based on the AAA framework did not find as convincing results. In the seventh-month follow-up of their evaluation of the Ohio University Sexual Assault Risk Reduction Programme, they found an increase in self-protective behaviours amongst the participants as well as a lower level of self-blame, however, rates of victimisation were not reduced. Their risk-reduction programme consisted of a total of seven hours; the first three covered statistics, risk factors and resistance strategies; the second two focused on feminist self-defence; and the last two provided a recap four months later. It is possible that the lack of reduced victimisation in Gidycz and colleagues' study was a result of the less detailed outline as compared to that of Senn et al. (2015). Nevertheless, this demonstrates that adaptations to risk-reduction programmes should undergo evaluation to ensure effectiveness, as despite being based on the same underlying AAA principles, the outcomes were not favourable.

A risk-reduction programme which does not follow the AAA model, yet still has promising results is the Dating Assertiveness Training Experience (DATE) programme (Simpson Rowe, Jouriles, McDonald, Platt & Gomez, 2012). The focus of this programme is to develop and practice skills of self-protection through assertiveness, specifically for dating or sexual relationships. The programme consisted of two 90-minute sessions, with one week in-between the two. The programme provided discussion of various topics such as consent and barriers to employing assertive responses, followed by a session putting these skills into practice through role-play. This session was mixed-gender, though the programme itself was aimed at only women. The reasoning behind this was the ability for a mixed-gender session to provide the women with situations that more accurately mirror real-life situations, while simultaneously raising the awareness of such issues amongst the men. Participants in this study were randomly assigned to

either the DATE intervention group or a control group without any intervention. The findings provide support for the success of the DATE programme, as women in the training group had a lower likelihood of experiencing sexual victimisation within a 16-week period, with 16.7% of the women in the training group, and 36.4% in the control group experiencing sexual victimisation. However, the sample size was only 102; with 36 women in the DATE training group and 66 in the control group. The study also had a high attrition rate. The DATE programme thus needs to be evaluated with a larger sample size. However, these results suggest a promising risk-reduction programme.

In summary, although little empirical evidence and theoretical justification exists for mixed-gender programmes for preventing sexual violence, our review also identified only a handful of risk-reduction programmes targeted at either men or women alone that effectively decreased sexual violence victimisation among women. This further emphasises the need for evaluation of interventions before implementing these as university-wide programmes. The few successful programmes targeted at women-only had certain features in common, such as their interactive approach using videos, group discussion, or role-play. They also generally covered a variety of risk-reduction techniques and possible barriers to utilising these, moving beyond mere provision of self-defence techniques. Nevertheless, the greater focus of the evidence-base on women's risk reduction as opposed to the prevention of men's perpetration may contribute to the perception of victim blaming in the prevention of sexual violence and is likely driven in part by the limited evidence on how to effectively prevent the perpetration of sexual violence.

CONTENT AND INSTRUCTION OF EDUCATIONAL INTERVENTION PROGRAMMES

Educational interventions focus on increasing awareness and improving understanding of sexual violence and its implications. This section will discuss two peer-reviewed, systematic reviews by DeGue et al. (2014) and Fellmeth, Heffernan, Nurse, Habibula, and Sethi (2013). The studies reviewed by DeGue and colleagues were mostly one-session programmes that aimed to increase awareness and change attitudes towards sexual violence, and were all conducted with college students. Fellmeth et al. reviewed 38 studies and aimed to equip young people with the knowledge and skills necessary to prevent sexual violence in a relationship and dating context. While Fellmeth et al. reviewed primary studies that included school-aged children, this report will only discuss interventions involving university students. The aims of the studies included in Fellmeth and colleagues' review focused on educational and skills-based interventions aimed at the prevention of date rape. In contrast, the review by DeGue et al. (2014) focused on changing attitudes and influencing behaviours surrounding sexual violence in general. All authors acknowledged severe limitations in their reviews and studies, but drew relevant conclusions about sexual violence prevention and how interventions can be conducted effectively.

The review conducted by DeGue et al. (2014) found mixed evidence regarding the effectiveness of educational interventions for preventing sexual violence. None of the brief psycho-educational interventions reviewed were effective in altering sexually violent behaviour when evaluated in randomised controlled trials. The majority of such ineffective interventions had only one or two components, involved little to no triangulation of teaching methods, were administered by people without training in sexual violence prevention or the specific intervention programme, and lacked content designed for specific racial or ethnic groups or sexual minority populations. However, among all their included studies, DeGue and colleagues found three primary prevention strategies that demonstrated statistically significant effects on sexually violent behaviour, two of which are relevant to this report. The first, *Safe Dates*, is a ten-session curriculum focused on the consequences of dating violence, gender stereotyping, conflict management skills, and attributions for violence. It included a student theatre production, poster contest, and increased services for dating-violence victims in the community. The second is *Shifting Boundaries,* a multi-level intervention, containing temporary 'building-based restraining orders' on the school grounds for sixth and seventh graders, a poster campaign to increase awareness of dating violence, 'hotspot' mapping, and school staff monitoring over a six to ten-week period. Based on their findings, DeGue et al. identified Nation and colleagues' (2003) 'principles of effective prevention' as a useful framework for intervention programmes to adopt. This framework indicates that effective prevention programmes are: comprehensive (including multi-level intervention components and affecting multiple settings); appropriately timed; utilise varied teaching methods (including varied interactive elements and opportunities for skill-based learning); have sufficient dosage; are administered by well-trained staff; provide opportunities for positive relationships between peers, families and within communities; are socio-culturally relevant; are theory-driven; and include outcome evaluation.

Fellmeth et al. (2013) conducted a systematic review of 38 studies of educational and skills-based interventions. A variety of outcomes were measured: episodes of relationship violence, attitudes towards relationship violence, skills related to relationship violence, knowledge related to relationship violence, and behaviour related to relationship violence. Although the same outcome was often measured using different scales in different studies, the authors combined these studies in a single meta-analysis for each outcome. The meta-analyses cumulatively pooled 33 of the 38 included studies. However, several studies had to be excluded from analysis and discussed narratively, because the scales that the studies used were not clearly defined. The authors questioned the quality of the studies they found, and specifically the bias the studies may have

introduced due to unclear randomisation, allocation concealment, and assessor blinding. They ultimately found even less evidence for the effectiveness of their included interventions than DeGue and colleagues (2014), due to the moderate quality of evidence for all outcomes reviewed. However, the meta-analysis of 10 studies which assessed knowledge concerning relationship violence showed that the included educational interventions led to an increase in knowledge in favour of the intervention, although there was also substantial heterogeneity in the results. This systematic review emphasised the need for larger randomised controlled trials and longer follow-ups to improve the quality of outcome evaluations of educational interventions for relationship violence and greater standardisation of outcome measures to maximise the comparability of results.

Overall, evaluations of educational programmes for sexual violence prevention have not consistently or convincingly indicated that programme effectiveness, often due to the poor quality of the evidence base. As such, educational intervention programmes require further rigorous evaluations to determine which, if any, of these programmes are effective.

BYSTANDER INTERVENTIONS

A bystander is a member of a community who is present at or witness to sexual violence. Moynihan et al. (2015) describe a bystander intervention in the context of sexual violence as one which:

> '…teaches community members how to intervene in situations that involve sexual and relationship violence. This includes interrupting situations that could lead to an assault; interrupting during an incident; speaking out against social norms that support sexual and relationship violence; and developing skills to be effective and supportive allies to survivors' (p. 111).

It is a type of intervention that does not target perpetrators or victims specifically, but aims to encourage prosocial behaviour among all members of the university campus.

Fenton (2015) condensed current findings into several steps that passive bystanders need to take to become active, pro-social bystanders: noticing a problem and identifying it as a situation which requires intervention, being aware that they are part of the solution to the problem and assuming the responsibility to deal with it, and having the skills and confidence to intervene. These steps fall into two categories: attitudinal and behavioural changes. Changes in attitudes are assessed by studies through various rape myth acceptance measures and measures of rape culture denial. Behavioural changes are assessed through participants' self-assessment of their feelings of bystander efficacy, and their self-reported interventions and bystander behaviours.

A systematic review by Fenton (2015) of studies from 2010 to 2014 found that in general, bystander interventions, 'empower participants to make interventions against violence' (p. 37). While studies use a variety of different variables to measure outcomes, they consistently find positive results. These outcomes include increased confidence and intention to intervene, decreased sexist attitudes and denial of rape culture, increased knowledge of violence, and increased numbers of bystander interventions. A systematic review and meta-analysis by Katz and Moore (2013) of 12 studies of college students found similarly positive results. They reported an increase in bystander efficacy, intent to help, and self-reported bystander behaviours, alongside lower rape supportive attitudes and rape proclivity.

In addition to these systematic reviews, more recent primary studies from 2015 have added to the evidence base corroborating the finding that bystander interventions make an effective and positive impact on the prosocial behaviour of participants. A study of 93 students recruited from social psychology classes at a mid-size university in the U.S. found that students who viewed the online bystander intervention programme, 'Take Care', reported feelings of greater efficacy in engaging in bystander intervention and performed more bystander interventions than the control group (Kleinasser et al. 2015). This study specifically aimed to influence the bystander behaviours of participants towards their friends, and developed an online programme which was 20 minutes long (a significantly shorter period than other programmes, which range from 90 minutes to three 90 minute sessions - such as Banyard et al., 2007). Kleinasser et al. note that, 'the specific bystander behaviours that appeared to be affected by Take Care were those that were addressed directly in the intervention' (p. 11), and so suggest that directly addressing general beliefs and attitudes such as rape myths might be necessary in order 'to obtain broader effects on bystander behaviours.' They also suggest that the duration of the intervention limited the number of scenarios that the programme could address and teach participants to deal with. It is encouraging that there is clearly a correlation between the content that the intervention presents, its effective and positive transfer, and impact on the behaviour of participants.

Moynihan et al. (2015) also found positive and encouraging results. Nine hundred and forty-eight first-year college students between the ages of 18 and 24 at two universities (one a rural, primarily residential campus and the other an urban, highly commuter campus) in the north-eastern U.S. were presented with a four and a half-hour multi-session version of the Bringing in the Bystander® in-person program. This programme involves an introduction to bystander responsibilities in communities, active participant exercises, and discussions about identifying risky situations and choosing safe, appropriate interventions. Three hundred and forty-six participants took a 12-month follow-up survey, and of these, positive behavioural changes were reported, where participants reported higher levels of bystander behaviour related to helping friends. Moynihan et al. note some barriers and limitations to their study which are worth attention. They found that a participant's level of awareness of sexual violence and rape culture is a moderator of bystander behaviour - participants who were more aware responded better to the programme than those who were at earlier stages of attitudinal change and awareness. Moynihan et al. also note that the opportunity for students to intervene as bystanders fluctuates with the university's social calendar, which also acted as a moderator on bystander behaviour.

Some of the problems of bystander intervention programmes that arise from Moynihan and colleagues' (2015) study resonate with the findings of a literature review of 59 studies by McMahon (2015), investigating how campus settings can promote environments that foster prosocial bystander intervention. The review concludes that social norms and a sense of community are significant contributors towards creating environments in which prosocial bystander interventions can be successfully executed. It is suggested that perceived peer norms are a salient factor for college men's bystander intentions, and are related to perceptions of peer norms around masculinity, violence against women, and intervention. Norms around alcohol were also identified as impacting bystander behaviours on college campuses. These norms in turn contribute to a sense of community and shared values, such as an intolerance of rape culture or sexual violence. It is acknowledged that the studies may run into difficulties if the environment of the campus is not amenable to bystander interventions because of the moderating factors mentioned above. To attempt to account for these environmental factors, Moynihan and colleagues' (2015) study included a social marketing campaign on campus in addition to the Bringing in the Bystander in-person program. The fact that the study exhibited positive results in a 12-month follow-up is encouraging and attests to the benefit of a prosocial environment in nurturing prosocial behaviour.

However, studies on bystander interventions are limited due to the way they collect data and measure the impact of the programmes on participants. Studies will use self-reported measures of efficacy and bystander behaviours, which are not standardised. Moreover, it is less clear if the perpetration of sexual violence is actually reduced as a result of increased bystander behaviours. Greater attention to the duration of interventions (which will be considered in a later section of this report) and the factors which contribute to the fostering of a prosocial environment might garner, in time, significant attitudinal changes which could result in substantive behavioural changes and mitigation of sexual violence on university campuses.

In conclusion, the current evidence base and a variety of literature reviews indicate that bystander interventions can make a positive impact on the prosocial behaviour of students. The extent of this impact is moderated by factors such as the duration and delivery of the intervention, and the environment of the university campus, such as the prevalence of toxic social norms relating to alcohol, masculinity, or rape culture. It is hoped that with the sustained and gradual attitudinal and behavioural changes bystander interventions foster, the incidence of sexual violence will be decreased; however, the literature remains inconclusive as to whether the rate of sexual violence on university campuses is actually reduced by bystander interventions.

ALCOHOL INTERVENTION POLICIES

There may be a relationship between the consumption of alcohol and the perpetration of sexual violence, especially in universities. Lippy and DeGue (2016) suggest that alcohol interacts with an individual's inherent disposition towards sexual aggression, such as general aggressiveness, belief in rape myths, hostility towards women, or exposure to violence during early childhood. However, a systematic review of sexual violence prevention programmes found that although numerous alcohol interventions had been trialled, the evidence supporting the effectiveness of programmes was weak, with a range of methodological issues identified (Trait & Lenton, 2015). The following section considers two categories of alcohol intervention programmes that may be implemented in college campuses: One, on-site policies to regulate the consumption and distribution of alcohol and two, online intervention programmes that aim to reduce intimate partner or sexual violence.

In their narrative review-of-reviews, Lippy and DeGue (2016) cover six key policy areas related to the physical distribution of alcohol that may affect consumption, especially among university students. These policies are discussed in what follows as promising arenas for further investigation, as few have been rigorously evaluated in the context of sexual violence prevention. The first is alcohol pricing. This includes 'happy hour' restrictions, wherein drink specials and promotions that reduce alcohol prices are prohibited, and excise taxes, which increase the price of alcohol. Two systematic reviews evaluated by Lippy and DeGue found decreased rates of sexually transmitted infections and sexual behaviour in university students after the implementation of these pricing policies. In 2010, Wagenaar and colleagues found a significant inverse relationship between alcohol price and state-reported rates of STIs, self-reported risky sexual behaviours, and police-reported criminal and violent behaviour. The authors further showed that doubling the alcohol tax from current rates would reduce the prevalence of STIs by an estimated average of 6%, violence by 2%, and crime by 1.2%. In addition to this, a study by Markowitz et al. (2012) found that increasing the excise tax on beer was the most effective policy approach to curbing self-reported general assault victimisation rates (Lippy and DeGue, 2016).

The second alcohol policy area identified by Lippy and DeGue (2016) is sale time policies, that are aimed at reducing or maintaining current limits on the selling hours for alcohol outlets. The third policy area is alcohol density policies, which target the concentration of places where students can buy alcohol. Alcohol density can be increased through the sale of alcoholic beverages by private, off-premise outlets, the allowance of more types of alcoholic beverages at premises through permissive licensing, and through a non-specific increase of alcohol outlets per capita (for example, a new outlet opening in the area). Lippy and DeGue argue that alcohol density can be decreased through addressing some of these permissive factors, and perhaps through banning the sale or consumption of alcohol in particular areas of a university campus.

The fourth alcohol policy area is drinking environment policies, which include increasing enforcement of laws prohibiting service to intoxicated or underage patrons, holding owners and/or servers at outlets liable for criminal behaviour of over-served patrons, and holding trainings (sometimes mandated) to increase the ability of servers to prevent over-service. Marketing policies, the fifth policy area, include state and local bans on alcohol ads on billboards and bans on ads that list alcohol price. Such policies aim to reduce general exposure to alcohol advertising, which varies across communities. The final policy area reviewed by Lippy and DeGue is university policies regarding alcohol. Such policies include banning alcohol in certain dormitories, which may prohibit the presence of alcohol in certain student housing residences; banning alcohol on campus, which may prohibit the consumption of alcohol for all students; and promoting social norm campaigns, which may correct students' misperceptions of alcohol consumption on campus. However, in their review of 16 studies on university social norms

campaigns, Toomey et al. (2007) conclude that this approach should be used cautiously, as a number of studies produced null findings and some even found an increase in alcohol use after the implementation of these campaigns (Lippy & DeGue, 2016). Overall, while the aforementioned policies have been theorized as able to regulate the supply of alcohol to university students, it is unclear whether they do limit alcohol consumption in practice and actually reduce the risk of sexual violence, for which more research is required.

Another aspect of alcohol policy with relevance to sexual violence prevention is online intervention programmes, which are widely available to university students. Tait & Lenton (2015) systematically reviewed online alcohol intervention programmes to reduce sexual and intimate partner violence. Three programmes were identified that had been implemented with university students – *CollegeAlc*, *AlcoholEdu*, and *SafERteens*. All were based in the USA and of short-duration, ranging between 30 minutes to three hours. Only the evaluation of *AlcoholEdu* provided an intervention effect estimate specific to the outcome of sexual violence, which was statistically non-significant. The review authors thus highlighted that although many evaluations exist of computerized and online interventions to reduce alcohol consumption, especially in university populations, there have been few assessments of the impact of these programmes on sexual violence or intimate partner violence victimization. Indeed few of these interventions focus on preventing this violence. This leads to a broader etiological question of whether changes in alcohol consumption by perpetrators or victims leads to reductions in IPV or sexual violence and illustrates the need for interventions to specifically account for and measure these potential mechanisms. A final limitation to existing evaluations of alcohol interventions for sexual violence is the wide diversity in alcohol consumption measures, not all of which may have implications for sexual violence. As Tait and Lenton note, heavy episodic drinking may be the most influential in the perpetration and victimisation of sexual violence and thus a potentially useful target for sexual violence interventions. In light of the limitations of the current evidence-base and despite their potential to attain wide coverage of university populations, more rigorous evaluations of online alcohol interventions for sexual violence are required – using standardised measures for both alcohol consumption and sexual violence – before policy recommendations can be made.

CROSS-INTERVENTION CHARACTERISTICS: DURATION AND DELIVERY

In the research considered thus far, bystander interventions, educational, and self-defence programmes to prevent sexual violence at universities have predominantly taken place in a classroom, workshop, or online. It is, however, important to consider how best to implement these interventions and alternative means of delivery. Duration and intensity are significant characteristics of an intervention that contribute towards its efficacy, and thus need to be taken into consideration when establishing a policy for the prevention of sexual violence.

Duration

Much research has been done on the optimum duration of classroom-based interventions. Vladutiu, Martin & Macy (2011) conducted a systematic review of eight studies and compared their methodologies. They found that longer classroom-based sessions were effective in lowering rape myth acceptance, however, the findings as to whether this reduced levels of actual sexual violence perpetration were inconclusive. This review also examined Flores and Hartlaub (1998), which found no relationship between length and effectiveness of an intervention. Flores and Hartlaub (1998) argue, 'Short interventions engage participants and "maintain their interest" because of their brevity,' while, 'Long interventions with a small number of participants and considerable audience participation were effective in reducing rape myth acceptance' (p. 75) but could not be conclusive about sexual violence perpetration. Another study that Vladutiu et al. (2011) examined was Yeater & O'Donohue (1999), wherein they argued that, 'Mixed-gender programs should be longer to have an adequate amount of time to influence both male and female behaviour' (p. 76). Moynihan et al. (2015) conducted a bystander intervention programme which was a four-and-a-half-hour multi-session version of the Bringing in the Bystander in-person programme. This was the first study to find positive results at a one year follow-up. In light of their long follow-up period, the authors suggest that repeating programmes or modifying them as the school year progresses is advisable, in order to keep educating students as different situations and as opportunities to intervene arise throughout the year.

Anderson (2003) conducted a meta-analysis of 69 published and unpublished studies that investigated interventions at university aiming to decrease negative attitudes and behaviour through classroom-based presentations. Anderson found that longer interventions were better at influencing rape knowledge and attitudes, however, the sexual violence prevention programmes examined had a very small positive impact upon behavioural intentions and incidence of sexual violence. Arango et al. (2014), in examining all forms of violence against women and girls, found that, 'Several studies show that it is possible to prevent violence against women and girls, and that large effect sizes can be achieved in programmatic time frames.' This is an encouraging finding as it shows a range of behaviours and attitudes can be affected by longer interventions.

With regards to the duration of web-based interventions, the findings of Kleinsasser (2015) should be considered. This study showed that a short 20-minute online bystander intervention programme was effective in reducing rape attitudes and behaviours, but was limited in the scope of behaviours it could impact because of its brevity. This suggests that there is a trade-off between the length of an intervention and the range of behaviours it can effectively influence in participants.

Delivery

In a study by Potter et al. (2016), 3,643 undergraduates across seven U.S. universities received sexual misconduct policy education. They were randomly allocated to one of four groups: (a) a read-only group, which involved reading the policy in a classroom setting; (b) a video-only group,

which involved watching an emailed video link of someone reading the policy; (c) a read + discussion group who read then engaged in a classroom discussion of the policy; or (d) a combined read + discussion + video group. At baseline and four-to-six weeks after receiving the policy education, knowledge of campus sexual misconduct policy was assessed alongside confidence in seeking help after sexual violence for the individual themselves, peers, and strangers. The analysis was reduced to 1,195 participants across control, read-only, and read + discussion groups – participants were excluded for reasons such as missing data and inconsistencies between reported information and condition. Eighty-nine percent of the video-only group failed to watch the video despite receiving it via email. This suggests that emailed video links are unlikely to be an effective means of delivery for education on prevention policy, especially at the start of a semester when students are receiving a multitude of other information in this manner. In contrast, Potter and colleagues found increased policy knowledge and understanding of resources and procedures in both the read-only and read + discussion groups, though this was most pronounced for the latter. This finding suggests that a combination of reading the policy alone and class discussion is the best method for increasing policy awareness, perhaps as it permits greater understanding through encouraging students to think about the material, ask questions, and benefit from the questions asked by others. It is, however, crucial to ensure the findings translate from a hypothetical sexual violence situation to behavioural outcomes – which remains an outstanding question.

Small-group sessions led by a facilitator are time and resource costly, placing limits on intervention dissemination and reducing its overall impact. Individuals can participate at any time, and accessing interventions alone prevents any unease that may arise through viewing materials or discussing sensitive topics with others. Finally, these technological means of delivery are more easily tailorable to specific individuals or colleges. For instance, Salazar et al. (2014) assessed an online bystander intervention programme in a study that randomly allocated 743 male undergraduates to RealConsent (a web-based bystander intervention programme) or a web-based control (a general health promotion programme). Odds for perpetrating sexual violence were 73% lower among RealConsent participants relative to those receiving the control intervention - an effect that was maintained at six-months follow-up.

Kleinasser and colleagues' (2015) study investigating the web-based bystander intervention, Take Care, demonstrated greater engagement in bystander behaviours relative to those receiving a control programme both immediately post-treatment and two months later. Again, this demonstrates bystander interventions adapted to an online format are effective, though it is important to note that participants viewed their programmes in the lab in the presence of a research assistant, reducing the ecological validity of the findings.

Finally, videogames are an appealing and engaging alternative method of sexual violence prevention programme delivery. One can capitalise on the popularity of videogames among university students and their wide accessibility via computers, tablets, and mobiles to reach a larger number of individuals. In addition, videogames have the potential to be tailored to both the university and individual in question through customisation of the virtual university environment. Campus Craft is one example, focusing on sexual violence prevention, consent negotiation, and the deconstruction of sociocultural factors that contribute to rape and sexual violence on college campuses (Jozkowski & Eskbia, 2015). With the goal of solving a missing item mystery, players are exposed to health-related conversations in a virtual university setting concerning consensual sex and the impact of factors such as drinking on sexual behaviour. Through listening to others, they learn about important issues related to sexual violence and rape culture such as token resistance (the attitude that women do not mean no when they refuse sex) and victim blaming. Jozkowski and Eskbia measured 141 students' evaluations of the game's usability as well as pre- and post-gameplay understanding of key concepts, behaviours, and

attitudes toward sexual violence. Post gameplay, composite learning scores were higher – indicative of decreased endorsement of token resistance, rape myths, and the sexual double standard, and improved knowledge of core concepts. However, since it is unclear how long such effects lasted and given the small size of the study, the generalisability of Campus Craft's effectiveness is not indicated by Jozkowski and Eskbia's study. Moreover, the lack of behavioural measures limits conclusions regarding the effectiveness of the programme in reducing sexual violence.

INTERVENTION PROGRAMMES AND SEXUAL RE-VICTIMISATION

Having a history of sexual victimisation is considered one of the strongest predictors of future sexual violence. For instance, Gidycz, Hanson and Layman (1995) found that 54% of college women with a prior history of sexual abuse, compared to 32% of those with no history, were victimised in their first three months of college. Women with a history of sexual violence have been found to have lower self-worth (Ullman, 1997), report more concern with embarrassment and rejection (Norris, Nuris & Dimeff, 1996), engage in more submissive behaviours when interacting with men (Knowles, 1993), and have poorer danger recognition (Wilson, Calhout & Bernat, 1999) than those with no prior history. Sochting, Fairbrother and Koch (2004) argue that women's cognitive schemas may become distorted after sexually violent experiences leading them to seek out potentially risky environments to confirm their negative self-perceptions and placing them at increased risk for re-victimisation.

Given the high risk of future assault among previous victims, the importance of delivering an intervention that is effective for this population is paramount. However, interventions are often found to be either ineffective at reducing rates of re-victimisation, or less effective than they are for first time victimisation. Newlands and O'Donohue's (2016) review of different types of interventions for U.S. college students found that the effectiveness of risk-reduction programmes targeted for women only was moderated by women's history of victimisation.

The Ohio University Sexual Assault Risk Reduction Prevention Programme, first discussed in our report under 'Single-Gender Programmes' and which involves viewing videos of victims talking about their experiences and a subsequent group-based discussion, has been well-replicated over the years, yet its effectiveness has been shown to be dependent on victimisation history. Hanson and Gidycz (1993) conducted an evaluation of the programme and found that, although self-reported experiences of sexual violence were reduced among female participants without a prior history of sexual violence, there was no difference in the rate of sexual violence for women who had been previously victimised between those who participated in the programme and those who did not. Even when the programme was adapted to specifically target repeat victimisation it remained ineffective. Breitenbecher and Gidycz (1998) adapted the intervention to include a discussion of the increased risk of sexual violence associated with previous victimisation and discussed possible mechanisms of re-victimisation such as learned helplessness and low self-esteem. They found the intervention was ineffective at reducing re-victimisation rates with the authors proposing that perhaps the relevant mechanisms for re-victimisation were still not addressed by their adaptations. However, it should be noted that the revised programme was also ineffective at reducing sexual violence rates for women without a prior history. The researchers suggest that the focus on re-victimisation may have made these women think the programme was irrelevant to them and therefore did not apply what they learnt. This raises a dilemma between attempting to focus on those most vulnerable to sexual violence and losing the effectiveness of the programme for those with no history of previous victimisation. One potential solution that has been suggested is to offer separate interventions for those who have and have not been previously victimised. In addition to the extra cost associated with running two programmes, a possible limitation with this approach is that a re-victimisation programme is unlikely to support all previous victims. Universities will not be aware of all student victims and many would not self-select themselves to attend, such as those who have not identified their experience as sexual violence, and who are perhaps most at risk of re-victimisation.

Later studies on the Ohio University Sexual Assault Risk Reduction Prevention Programme found inconsistent re-victimisation results. Gidycz et al. (2001) evaluated a modified version of the prevention programme in which personal relevance was emphasised in the delivery of information, such as local statistics and personal discussions after watching videos of rape

survivors. Despite no difference after two months, they did find that women who had been sexually assaulted but not raped before the two-month follow-up were less likely to be re-victimised before the six-month follow-up if they participated in the programme. This difference in re-victimisation between the experimental and the control group was not seen for women who had been raped. This suggests that the nature of the prior victimisation affects the success of the programme and the negative impact of severe victimisation may be harder to reverse. Whilst we cannot be sure, it may be that the more personal emphasis of the programme contributed to its limited success.

Whilst the nature of the previous victimisation may influence programme effectiveness, prevention programmes may also differ in their impact on different types of victimisation. Orchowski, Gidycz and Raffle (2008) studied a later revised version of the Ohio Program with an improved control condition, a similar intervention in design and length but on the topic of vaccine preventable diseases, as opposed to a wait-list control. They found no difference in results between women with and without a history of sexual violence. Whilst the programme did not reduce overall rates of sexual violence, it did result in a shift in the severity of assault. Women who participated in the programme reported more incidents of assault excluding rape but fewer incidents of rape in comparison to the control group. Thus, the prevention programme may reduce instances of rape among those with a history of sexual violence, but potentially only by displacing this violence into a more moderate but still serious form. The programme thus remained inadequate in addressing the overall problem of sexual violence facing women in universities.

Similar results were seen for a re-victimisation intervention programme that specifically targeted undergraduate women with a history of sexual victimisation. Marx, Calhoun, Wilson and Meyerson (2001) conducted an evaluation of the intervention which incorporated the psychoeducational programme developed by Hanson and Gidycz (1993) as well as a further relapse-prevention approach including assertiveness and coping skills training and identification of risky situations in two two-hour sessions. The results are consistent with Orchowski et al. (2008): while rates of victimisation did not differ between the intervention and the control group at a two month follow-up, those who received the intervention reported significantly fewer instances of rape. Therefore, it may be that these programmes are most effective at reducing instances of rape; however, this may be true for women regardless of their prior history of sexual violence, which still leaves the question open of how best to reduce the increased risk of sexual violence among women with a prior history of victimisation.

Reduced success among previously victimised women has been seen with other prevention programmes. Simpson Rowe et al.'s (2012) evaluation of the DATE programme, as discussed in the single-gender section of the report, halved sexual violence rates but did not have a significant effect for those previously victimised. The Enhanced, Assess, Acknowledge, Act Sexual Assault Resistance (EAAA) programme may be slightly more promising for women with prior victimisation. It is designed to help women identify risky situations and provide them with self-defence skills to deal with unwanted advances. Senn et al. (2015) found that the programme was effective at reducing one-year risks of completed rape among women with and without a history of sexual violence, although the intervention was not as effective for prior victims.

Alcohol consumption is an established risk factor associated with increased risk of victimisation (Palmer, McMahon, Rounsaville, & Ball, 2010), and some interventions targeting alcohol use have proved promising at reducing re-victimisation rates. Clinton-Sherrod, Morgan-Lopez, Brown, McMillen and Cowell (2011) evaluated the success of a motivational interviewing drinking intervention on sexual victimisation over three months. They found that compared to the control condition, those who received motivational interviews targeting their drinking behaviour and

feedback were less likely to be victimised in the three months after the intervention regardless of prior victimisation. Gilmore (2015) conducted a randomised-controlled trial of an alcohol use and sexual violence web-based intervention with personalised feedback targeting heavy drinking in college women. The intervention was conducted online and according to the sexual experiences, assault, and alcohol use information that participants entered they would be given personalised feedback such as their sexual violence risk perceptions and strategies and information about how they compare to drinking norms. Results showed that a combined intervention targeting both alcohol use and sexual violence prevention, as opposed to either component alone, was effective at reducing both sexual violence incidence and their severity as well as the frequency of heavy drinking episodes amongst those women who reported the highest rate and severity of prior victimisation. Yet, the intervention was not effective at reducing first experiences of sexual violence, with researchers suggesting this difference was due to their relative engagement with the programme. This therefore echoes other concerns about the potential disengagement of women with no history of victimisation in programmes covering re-victimisation, as they do not relate to the information they receive.

While some studies have found no difference in dropout rate, Gidycz et al. (2015) found those previously victimised were less likely to complete the prevention programme, illustrating the risk of disengagement among this population as well. Twenty-eight percent of women who attended the follow-up reported a history of victimisation compared to 52% of those who dropped out of the study. Thus, focus should also be put on methods of attracting and retaining those women at highest risk to ensure interventions have the greatest reach among students. This difference in engagement also raises a methodological issue. When interventions for sexual violence are evaluated without non-random assignment and fail to measure previous victimisation, differences in sexual violence rates between the intervention and control groups may actually be explained by non-random differences in victimisation histories. This is particularly a problem when programme evaluations rely on volunteers into the programme, given that fewer women who have been previously victimised may choosing to participate in the programme.

Ultimately, programme success for those with no prior history of victimisation does not denote success among women who have been previously victimised. These results highlight the importance of testing sexual violence rates by victimisation history in order to fully understand the effectiveness of an intervention. A general reduction in sexual violence rates may be driven by the effect of the programme on those with or without a history of sexual violence exclusively. A deeper understanding of the specific factors that mediate re-victimisation and first-time victimisation may ensure that the right content is addressed in programmes. Researchers and practitioners must attempt to tailor the content of their interventions, depending on their programme aims, to ensure personal relevance for women whose history may or may not involve sexual violence, which in itself may differ greatly in its severity.

Due to these differences between programme effectiveness and engagement for those with and without a history of sexual violence, designing separate interventions tailored to those previously victimised may prove one solution. Sochting, Fairbrother and Koch (2004) suggested that victimised women should be offered more long-term therapy that encourages disclosure, arguing that being heard is an important contributor to psychological recovery, as this would more directly address the psychological maladjustment characteristic of victims. This could be delivered in addition to a standard prevention programme.

While it is difficult to extract consistent patterns from the literature on re-victimisation, the following points may provide a summary of findings: a) the effectiveness of interventions on those with a prior history of sexual violence may depend upon the rate and severity of previous victimisation; b) interventions themselves may not be effectively reducing sexual violence among

those with a prior history of victimisation, but simply displacing this violence from more severe to less severe (but still serious) forms; c) targeting alcohol consumption in addition to standard risk-reduction programmes may be one promising avenue for re-victimisation interventions; d) extra effort must be taken to engage those with a history of sexual victimisation in prevention programmes; and e) delivering separate interventions for those with and without a prior history of assault should be considered given their differing needs.

LIMITATIONS OF THE LITERATURE

In a review-of-reviews examining prevention efforts for campus-based violence against women between the years 2003 and 2013, Banyard (2014) identified a number of limitations with existing research that align well with the findings of our overview: notably, the failure of included studies to consider moderating variables that may influence the effectiveness of sexual violence prevention programmes. Readiness to change as well as prior history of sexual violence perpetration and victimisation are key moderators that have been discussed in much of the prevention programme research, yet many interventions do not successfully address these differences. It may be that tailoring interventions in accordance with baseline scores on these measures is required for optimal efficacy as opposed to a stock intervention suited to all.

Research into sexual violence prevention at universities has been carried out almost exclusively in colleges in the United States. Universities in other countries, for example the U.K., differ in many ways, for example, shorter duration of degrees, living situations (relatively fewer cases of room sharing), lower costs of education, differing alcohol consumption laws, and fewer fraternities and sororities. As a result, policy recommendations that follow from the literature may not directly translate to U.K. universities, or universities in other OECD countries. Furthermore, the participant demographics of sexual violence prevention programmes have largely been Caucasian and heterosexual. Failure to consider both ethnic diversity and the LGBTQ community, as well as the relative paucity of research with male participants (as both perpetrators and victims) limits generalisability of research to these populations. Replications are therefore required in more diverse university populations to assess whether programmes are equally as effective or whether tailoring of interventions is required for specific subgroups, who may face unique risk factors for victimisation and perpetration.

Finally, most of the research reviewed in this report measured programme effectiveness based on attitudes towards sexual violence, rape myth acceptance, knowledge of consent, and self-reports of how participants would respond in hypothetical situations. These are used as a proxy for incidents of sexual violence but are susceptible to biases such as social desirability, and hence do not necessarily translate to changes in behaviour (i.e., a reduced rate of sexual violence perpetration). A persistent problem affecting studies where rates of sexual violence perpetration were actually measured is that we cannot tease apart whether changes in rates are true effects of the programme or whether they arise as a result of a changes in reporting willingness as a result of programme participation.

LIMITATIONS OF THE REPORT

The current overview of evidence also has numerous limitations. To produce this report, we conducted a rapid evidence assessment, a common evidence overview tool used to inform programming and policy decisions and identify gaps for future research by establishing a general state of the evidence on a topic (Department for International Development, 2016). Although these evidence overviews are more rigorous than basic literature reviews, they are not as comprehensive as systematic reviews. As a result, for the current report, each database was searched and the results were screened by only one author, without reproduction or consensus from a second author. This may mean that our overview was more susceptible to missing or excluding relevant reviews. The specific database search terms used, including indexing terms, were not identical for all databases. Moreover, the PRISMA checklist or other similar checklists with standards for reporting systematic reviews and meta-analyses were not used for our evidence overview, in favour of a discussion of key topics related to prevention programming for sexual violence among university students. Finally, the quality of the included reviews and evaluations were not assessed beyond narrative critical appraisal, and as a result we cannot make conclusions regarding the risk of bias within and across studies. As is the case with all reviews-of-reviews, the quality of our overview is subject to the quality of our included reviews. If these reviews systematically failed to include relevant primary studies, our overview may be subject to bias. Resultantly, the primary studies we discussed may not be representative of all interventions available for sexual violence among university students.

CONCLUSION

Although this report has emphasised the serious limitations of studies examining the effectiveness of sexual violence prevention programmes, some conclusions and preliminary policy recommendations can be drawn.

Prevention programmes tailored to single-gender participant groups have a stronger theoretical basis and overall have shown greater effectiveness than programmes aimed at mixed-gender groups, as single-gender programmes can have more focused aims (Vladiutu, Martin, and Macy, 2011; Newlands and Donohue, 2016). Importantly, however, women-only risk-reduction programmes have been more frequently tested than perpetrator-focused programmes. Some of these risk-reduction programmes have been effective in decreasing sexual violence victimisation, with common features being an interactive approach using videos, group discussion or roleplay, and generally covering a variety of risk-reduction techniques and challenges that move beyond simply self-defence. However, the need for programmes targeting perpetrator behaviour remains largely unaddressed, which may reflect a lack of effective theories regarding how to prevent the perpetration of sexual violence while also contributing to perceptions of victim blaming.

Though general, educational programmes (i.e., those that focus on instruction and increasing awareness of sexual violence) are common in universities. However, systematic reviews have found few models of effective educational prevention programmes. Consequently, it is difficult to make recommendations about the content of such programmes. *SafeDates* and *Shifting Boundaries*, evaluated by DeGue et al. (2014), represent the most promising of such programmes, but further research is needed to affirm their effectiveness.

In contrast to purely educational programmes, the current evidence base indicates that bystander interventions can make a positive impact on the prosocial behaviour of students. The extent of this impact is mediated by factors such as the duration and delivery of the intervention, and the environment of the university campus, such as the prevalence of toxic social norms relating to alcohol, masculinity, or rape culture. Although the studies are inconclusive about whether the rate of sexual violence on a university campus is reduced due to bystander interventions, the hope is that the sustained behavioural and attitudinal changes fostered by bystander interventions will decrease the incidence of sexual assault.

Across intervention programme types, interventions may be less effective for women with a history of severe sexual violence as opposed to moderate sexual violence. Targeting alcohol consumption in addition to standard risk-reduction programmes may be a promising avenue for re-victimisation interventions. Extra effort must be taken to engage those with a history of sexual victimisation in prevention programmes and prevent stigmatisation and re-traumatisation. Delivering separate interventions for those with and without a prior history of assault should be considered.

Overall, sexual violence prevention programmes need to be targeted in both their audience and their outcome goals in order to be effective. However, the more targeted an audience is for a programme the more difficult it may be to enforce attendance. Longer, more frequent programmes are more able to accommodate a wider range of outcome goals and audiences. Finally, the effectiveness of prevention programmes is often contingent on the contextual factors of the university itself, and thus the institutional environment and campus culture must be considered for successful implementation.

POLICY RECOMMENDATIONS

As per the findings in this report, we recommend the following:

- Targeted audiences are often most effective. Tailoring the programme to the university and specific demographics of the participants is recommended.
  - o Single-gender groups are recommended over mixed-gender groups.
  - o Separate interventions for women with a prior history of sexual violence would be beneficial for that community.
  - o Multiple, interactive approaches such as videos, roleplay, and group discussion are beneficial.
- The culture surrounding alcohol at the university should be considered in designing intervention programmes.
  - o Universities that have implemented alcohol-related policies should implement standardised data collection on student alcohol consumption and experiences of sexual violence to establish effectiveness
- Bystander intervention programmes are a promising avenue for the prevention of sexual violence.
  - o These should be implemented with data collection on the incidence of sexual violence (as opposed to only changes in attitudes or efficacy) in university populations to determine programme success.
- Online, interactive intervention programmes can be a useful preventative tool.
  - o Online programmes can be used to reach out to sexual violence victims who may be ordinarily hesitant in making use of on-campus resources tailored to them.
  - o Such programmes are cost-effective, reduce the time required by both students and educators and are easily tailorable.
  - o Such programmes need an enforcement mechanism to ensure students engage with the intervention.
- Interventions, especially those with multiple outcome goals and diverse audiences, should involve multiple sessions when possible.

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