



## Sexual assault interventions may be doing more harm than good with high-risk males



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### ABSTRACT

Based on legal requirements and other considerations, there have been many well-meaning interventions intended to reduce sexual assault on university campuses throughout the US. There is no legal requirement, however, to evaluate the effectiveness of these programs, and few evaluations have been conducted. Those that have suggest that at best only a small number of these interventions have been effective and those involve bystander interventions. More importantly, there has been very little research examining the effects of such interventions on men at high risk for sexual aggression, who presumably are a key target of such interventions. Research on similar campaigns in other domains should have alerted investigators to the possibility of boomerang reactance effects wherein interventions can actually have the opposite of the intended effects for high-risk college males. The few studies that directly have examined this possibility indeed are supportive of the substantial likelihood of such negative effects. Commonly used interventions may fail with high-risk men because they are likely to generate “hostility reactance” — one of the key causes of both sexual violence itself and the unintended adverse effects of the interventions. We address the question of why universities have failed to address this possible effect of interventions and why previous reviews have not highlighted this possible danger.

## 1. Interventions on college campuses

### 1.1. Calls for a comprehensive approach

As emphasized by Malamuth (1984), “analysis of the causes of violence against women requires consideration of the interaction among three types of factors: cultural factors that affect members of the society in general, the psychological makeup of individuals who are more likely to commit such acts of violence, and situational factors that may suppress or trigger the actual expression of aggressive responses” (p. 19). Although among prevention researchers there has been a growing recognition for the need for such a comprehensive framework, underscored similarly by a Social-Ecological Model incorporating the complex interplay among individual, relationship, community, and societal factors (Dahlberg & Krug, 2002), unfortunately there has not been sufficient attention given to the psychological makeup of high-risk males and the potential impact on them of widely used interventions.

### 1.2. Impetus for interventions

In the US, the 2013 Violence Against Women Act by Congress (see <https://www.congress.gov/bill/113th-congress/senate-bill/47>) required all federally funded universities to provide primary prevention and awareness rape intervention programs. This act contributed to virtually universal interventions across all university campuses. However, no evaluation of these programs was mandated by this act and well-conducted evaluations have been glaringly absent. Although there are different avenues for reducing campus sexual assault, as noted by Daigle, Fisher, and Cullen (2008), “There appears to be a consensus among rape researchers that rape prevention efforts need also to focus on males, especially because they are the most likely offenders” (p. 169). Clearly, this suggests a need to particularly focus on those males at relatively high risk for sexual aggression, not just males generally. Regrettably, such a focus, particularly with respect to assessing the impact of current interventions on such men, has been largely absent.

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### 1.3. Efficacy of interventions

In this article, we consider whether interventions have been effective with those male college students most likely to engage in sexual assault and the implications of the findings in this area. Our primary goal is to draw closer attention to the need to directly consider the impact of current interventions on such relatively high-risk men.

The website “Culture of Respect” (<https://cultureofrespect.org/colleges-universities/programs/>) is devoted only to programs that are “based in sound theory and research; use current and innovative strategies for violence prevention; and [are] available for implementation on campuses across the country.” It lists thirty-six university intervention programs. An examination of these programs reveals that even among these highly selected interventions, if there is any evaluation of program effectiveness at all, in most cases the evaluation has methodological problems. Indeed, a recently completed authoritative evaluation of such programs highlighted by the Center for Disease Control (<https://www.cdc.gov/violenceprevention/sexualviolence/prevention.html>) concluded that only one sexual assault reduction program has been shown to be effective at the college level, while two programs show “promise of effectiveness” (DeGue et al., 2014). All three of these are designed to change bystander interventions. “The bystander model,” according to research professionals, “targets all community members as potential bystanders and seeks to engage them in proactive behaviors that establish intolerance of violence as the norm, as well as reactive interventions in high-risk situations, resulting in the ultimate reduction of violence” (Elias-Lambert & Black, 2015, pp. 4–5; see also Banyard, Plante, & Moynihan, 2004).

There is no evidence currently, however, that even the bystander model or any other interventions succeed in changing high-risk males' attitudes, emotions, empathy levels, or behaviors, as evaluations have not specifically examined the impact on such men. These men are likely to possess a combination of general antisocial tendencies (e.g., a narcissistic personality, a high sense of entitlement) as well as specific characteristics (e.g., hostility towards women, attitudes accepting of violence against women, sexual arousal to force, an impersonal sexual orientation) pertaining to sexual violence (Malamuth & Hald, 2017). Such psychological characteristics make them especially resistant to attitudinal, emotional, or behavioral changes. If the current effective programs work at all for such high-risk men, they may do so indirectly. They may reduce the ability of high-risk men to carry out an assault by changing the responses of the low-risk, less violent people around them. The effect, therefore, is most likely due to a change in the environment or situational factors in which some assaults occur, including parties where students consume high levels of alcohol (e.g., Abbey, Wegner, Woerner, Pegram, & Pierce, 2014; Testa & Cleveland, 2017), rather than by having an effect on the high-risk male himself.

An extensive “critical review” of the scientific literature on prevention efforts on US college campuses was recently published by Newlands and O'Donohue (2016). After engaging in thorough computer-based searches of various databases as well as using various other means, they identified 158 potentially relevant studies. Nonetheless, when they required that the studies included quantitative measures, had some behavioral outcomes, and some follow-up period, there were only 28 studies left in the sample. After thoroughly examining these, they bemoaned the “dearth of positive findings of prevention-program evaluations impacting rates of sexual violence” (p. 9). In order to facilitate improvement, the authors make some recommendations for developing more rigorous research programs. Among them, although mentioned only very briefly, is the idea that attending to “differences between participants can elucidate what factors influence or moderate treatment success or failure” (p. 10).

Even the few most positive reviews of success of interventions (e.g., Anderson & Whiston, 2005) have encompassed only interventions yielding changes in attitudes supporting violence but not behaviors. As noted earlier, Newlands and O'Donohue (2016) only included actual

behavioral changes, a more stringent criteria for study inclusion. These positive reviews concluded that such interventions result in statistically significant, albeit not strong, overall changes. Here too there is only very brief mention, if any, of caution about possible moderator effects pertaining to the type of audience.

In light of growing evidence of boomerang effects described below, whereby interventions may result in an increased probability that relatively high-risk males will endorse more sexually violent attitudes and be willing to behave more aggressively after the intervention compared to before, the relative inattention of researchers and reviewers of prevention programs to individual risk profiles appears highly problematic. Indeed, even when interventions with undergraduate male populations indicate positive results on the whole (i.e., without examining individual differences in risk), such results may mask dangerous effects for subgroups of at-risk males.

## 2. Intervention literature and boomerang effects

### 2.1. Interventions in other areas

For many years, based on repeated findings in various areas (e.g., alcohol consumption, home energy use, etc.), reviewers of public health campaigns have called attention to the possibility of adverse boomerang effects. As some reviewers have noted, “An obvious implication is that boomerang effects should be taken into account as one of the potential costs of launching a mass communication campaign” (Ringold, 2002, p. 27). Most relevant to the current focus, boomerang effects have been well documented in areas of interventions designed to change antisocial behaviors, including sexual and nonsexual violence (see, e.g., Byrne & Hart, 2016; Wilson, Linz, Donnerstein, & Stipp, 1992). For example, an analysis of the consequences of a domestic violence campaign that included multiple television and newspaper advertisements demonstrated such unintended effects (Keller, Wilkinson, & Otjen, 2010). One of the stated goals of the program was to change the attitudes and behaviors of potential perpetrators. Only women's perception of the severity of domestic violence (e.g., “Domestic violence is a serious issue that requires government or police involvement”) increased after the campaign, however. Perceptions of the severity of domestic violence actually substantially decreased for the men in the study.

Cardaba, Brinol, Brandle, and Ruiz-SanRoman (2016) conducted research on the effects of anti-violence campaigns in different countries with different age populations. In one study, they found that individuals with relatively higher scores in trait aggressiveness showed a boomerang effect of anti-violence messages since they actually increased their favorability of attitudes towards violence. In contrast, the anti-violence campaigns were effective for those with relatively lower trait aggressiveness. In the second study, the intervention campaign again worked for the low trait-aggressive individuals but not for the high trait-aggressive participants. Another study reporting boomerang effects in the area of violence was conducted by Rivera, Santos, Brandle, and Cardaba (2016). The authors randomly assigned a large number of Italian students to participate in an intervention campaign designed to reduce participants' acceptance of violent video games. Participants were classified according to their relational lifestyle, consisting of four groups: e.g., “communicative” adolescents were relatively highly engaged in “civic values duties” in their communities, and were less likely to take drugs, whereas “fractured” adolescents had a higher probability of taking drugs than other groups and of engaging in other relatively delinquent behaviors. The group with a “fractured” or problematic lifestyle showed a boomerang effect, increasing their intent to play violent video games, whereas the other participants reduced their desire as a result of the intervention.

### 2.2. Studies focusing on sexual assault prevention

Given the fact that the broader literature on interventions has

cautioned about the potential of boomerang effects and that this caution should have been reinforced by studies in related areas such as domestic violence, it might have been expected that researchers would have extensively considered and evaluated this possibility in the sexual assault intervention area. Unfortunately, there have been very few studies that have examined the effects of interventions on men who are at relatively high risk for sexual aggression. The few relevant studies we have found indeed should sound the alarm even more.

We could not find any studies that specifically examined the impact of any elaborate interventions on high-risk males. The studies we did find all involved some form of intervention of less than one hour. One of these was a systematic experiment using a well-validated laboratory analogue of sexual aggression. In a community sample of American men, [Bosson, Parrott, Swan, Kuchynka, and Schramm \(2015\)](#) found that men low in sexism showed less aggressive tendencies following exposure to messages emphasizing norms of gender equality (e.g., most men approve of “men doing half of the housework and childcare”) or paternalism (e.g., most men approve of “always offering to pay when out to dinner with a woman”). Conversely, men high in hostile sexist attitudes showed a boomerang effect of increased sexually aggressive tendencies.

In a study of undergraduate men, [Stephens and George \(2009\)](#) examined the impact of a rape prevention intervention on low- vs. high-risk men. Risk level was determined by whether individuals had reported previously engaging in sexually aggressive behavior. High-risk men (45%) had reported at least one past sexually coercive act whereas the remaining 55% reported none. The intervention was a 50-minute video that included various components. The researchers found that men in general showed reductions in rape myth acceptance and an increase in victim empathy at a five-week follow-up. Subgroup analyses, however, suggested that low-risk men were responsible for these findings. High-risk men showed no reliable attitudinal changes from the intervention. More alarmingly, high-risk men in the intervention group were more likely at follow-up to report higher sexually coercive behaviors than prior to the intervention.

One line of research, however, did show some positive, albeit mixed effects, of a short-term intervention on measures of empathy for men defined as high risk. Note that these studies did not examine actual sexually aggressive behaviors, as in the other two studies summarized above. In one of the studies showing some positive effects, [Schewe and O'Donohue \(1993\)](#) classified men as low- vs. high-risk based on scores on a modified version of Malamuth's Likelihood of Raping scale ([Malamuth, 1981](#); [Briere & Malamuth, 1983](#)). Only relatively high-risk males were chosen to participate in the actual experiment. They were randomly assigned to three conditions, including control and either viewing videos intended to induce greater empathy or videos designed to counter rape myths by presenting rape facts. The condition presenting rape facts failed to show any significant effects and indeed the high-risk men scored more negatively on rape-related variables than the control group. However, the rape empathy condition, which showed a presentation depicting victims of rape, child sexual abuse, and sexual harassment and their subsequent pain and suffering, did result in improvements in rape empathy and attitudes supporting aggression against women.

This study had some positive features in that the interventions and the assessment of effects were conducted in two separate sessions, presumably separated by some time. However, the report does not make clear whether there was any attempt to disguise the connection between the two sessions or whether participants knew that both sessions were part of the same research and it appears that they did know. In addition, no attempt was made to assess whether subjects believed that the experimenters wanted them to show any positive changes (i.e., demand characteristics). However, the fact that changes did not occur in the facts condition but did in the empathy condition does somewhat lessen the likelihood of an experimenter expectancy effect.

Similar procedures were used in the second study ([Schewe &](#)

[O'Donohue, 1996](#)). Low- vs. high-risk was operationalized based on the scores of the Attraction to Sexual Aggression scale ([Malamuth, 1989](#)). Subjects were randomly assigned to one of three conditions: 1) a no-treatment control group, 2) a condition in which they viewed a 50-minute videotape presentation designed to facilitate empathy towards victims of sexual abuse and to increase awareness of the destructive consequences of rape for the male aggressor (labeled the VE/OE condition), or to 3) a 50-minute videotape presentation describing the importance of cognitions in preventing sexual assault (labeled the RSC condition). Subjects in the two treatment groups also participated in a behavioral exercise designed to increase their involvement in the program. The authors expected the two conditions to be similarly successful in changing subjects' attitudes. At two-week follow-up, however, subjects in the RSC condition but not in the VE/OE condition showed clinically significant improvement on multiple measures assessing rape supportive cognitions, acceptance of interpersonal violence, and attraction to sexual aggression.

The authors suggested that the VE/OE condition may have been relatively ineffective because rape myths were not directly addressed there. In light of the reactance processes described below that appear to mediate boomerang effects, we would also note that the VE/OE intervention, in which the possible personal consequences of raping were discussed (e.g., harming one's reputation, arrest, conviction, imprisonment, negative impact upon future career), may have led to greater reactance by challenging or threatening the participants.

These two studies seem to provide some hope for changing some risk factors among high-risk individuals, albeit the data do not really contradict the findings of the two other studies showing the potential of boomerang effects on sexually aggressive behaviors (in the laboratory and in the “real” world).

### 3. Explaining the boomerang effect in intervention studies

[Byrne and Hart \(2016\)](#) have examined in depth the various mechanisms that may lead to boomerang effects in interventions involving violence in the media. This includes greater cognitive accessibility of the attractive features of the prohibited activity for which the intervention was designed in the first place. One explanation for boomerang effects lies in the theory of psychological reactance ([Brehm, 1966](#)), roughly defined as the state of being aroused in opposition to perceived threats to personal choice. Psychological reactance has also been used as a variable in explaining proclivity towards sexual assault.

We believe that failed interventions with high-risk men may be explained partially by the perceived critical and/or “preaching” nature of the interventions often used, which may be viewed by men as a deprivation of their freedom to think, feel, and act as they would like, leading to angry reactive emotions and hostile behaviors. In addition, sexually aggressive men may also experience a specific form of reactance to antiviolence messages about sex because they assume they are entitled to have sex with women who refuse them. [Baumeister, Catanese, and Wall \(2002\)](#) offer a broad theory of rape that incorporates reactance into their theoretical model. They analyze rape in terms of reactance theory and narcissistic behavior. They explain: “A man desires sex with a particular woman and thinks that having sex with her should be an option for him. She refuses his advances, however, thereby removing that possibility. He is thus presented with a choice between acquiescing to her refusal and using force to obtain sex. Narcissism increases the likelihood that he will perceive her to be sexually available, will experience reactance upon her refusal, and will resort to force to obtain sex” (p. 95). Indeed, high-risk men's sense of entitlement may be particularly relevant here. To a narcissist, hearing “no” may be considered a narcissistic injury that leads to anger ([Levin, 1993](#)). This reaction appears related to the backlash described in recent descriptions of the anger felt by internet communities of “incels” which have glorified the violence against women in places such as Montreal, Santa Barbara, and Toronto (e.g., [Gismondi, 2018](#)).

Narcissists respond aggressively to interpersonal rejection across a number of domains (for a summary, see [Widman & McNulty, 2010](#)). As the Confluence Model suggests, narcissism is an important risk factor for sexual aggression, particularly when coupled with a high sensitivity to perceived rejection and hostility towards women ([Malamuth, 2003](#); [Malamuth & Hald, 2017](#)). It relates positively to rape supportive attitudes and negatively to empathy for others, and produces more punitive responses to rejection by a female ([Bushman, Bonacci, van Dijk, & Beaumeister, 2003](#)).

[Wegner and Abbey \(2016\)](#) found that narcissism is also indirectly related to men's misperception of women's degree of sexual interest through the proximal predictor of hostile masculinity, suggesting that narcissists are especially unlikely to process and perceive cues of female sexual disinterest when experiencing reactance. In general, sexually aggressive men are more likely than other men to misperceive women's sexual intent ([Boundurant & Donat, 1999](#)). In an expansion of the Confluence Model, misperception of sexual intent had independent direct effects on sexual aggression ([Abbey, Jacques-Tiura, & LeBreton, 2011](#)).

Particularly relevant findings on reactance effects come from a line of research focusing on the “Intertwined Model of Reactance.” In their theory on the mechanisms underlying reactance responses, [Dillard and Shen \(2005\)](#) find support for the conclusion that “reactance is best understood as an intermingling of negative cognition [e.g., counter-arguments, derogation of the message/source] and anger” (p. 160). In a series of studies (e.g., [Kim, Levine, & Allen, 2013](#); [Kim, Levine, & Allen, 2014](#)) other investigators have demonstrated considerable support that anger is a powerful aspect of reactance but that resistance (e.g., freedom threat, poor argument) and persuasive boomerang (e.g., perceived personal insult) are also intertwined mechanisms underlying the boomerang reaction. Such emotional and cognitive reactions have been well documented in research in men high in risk for sexual assault (see [Malamuth & Hald, 2017](#) for a review).

Subversion of a popular anti-rape campaign provides a real-life example of the boomerang effect possibly occurring with high-risk males. Part of an anti-rape program introduced at the University of Alberta and used worldwide involved the creation of posters for a “Don't Be That Guy” campaign that attempted to address rape myths. For example, one of the campaign posters uses white text on a black background that reads: “Just because she's drunk doesn't mean she wants to f\*\*k” (<http://www.wavaw.ca/campaigns/dont-be-that-guy-campaign/>; <http://www.theviolencestopshere.ca/dbtg.php>).

Vandals changed the text of the posters to send the opposite message, altering the original posters to transform an anti-sexual-assault campaign into one that questions women's motives in reporting sexual assault (<http://nationalpost.com/news/canada/troubling-posters-that-parody-successful-dont-be-that-guy-anti-rape-campaign-appear-in-edmonton>). A rewritten ad posted online, labeled “Don't Be That Girl,” reads: “Just because you regret your life choices, doesn't mean it's rape.” Other unauthorized campaign images include the text: “Just because you regret a one-night stand, doesn't mean it wasn't consensual,” or, “Just because she is easy. Doesn't mean you shouldn't fear false criminal accusations.”

The vandalized posters may be thought of as hostile reactions to the education attempts in the original anti-rape messages, which are interpreted by these males as admonishing them and saying to them, “you are wrong to believe what you do,” or in the words of the campaign, “don't be that guy.” Little progress is likely with these hostile reactive males by telling them what they believe is wrong and that someone else may have a better way. The interpretation these men have of their experiences with women belie these admonishments and probably lead them to label them as “bullshit.” The reworded parodies can be seen as angry reactance, embodying the affective and cognitive beliefs of high-risk men.

#### 4. Closing comments: Why little attention to such boomerang effects?

We have reviewed here considerable data suggesting that boomerang effects among the 30% or so of men who are at relatively higher risk for committing sexual assault are very possible with current sexual violence interventions on university campuses. To reiterate, data showing boomerang effects for interventions specifically focusing on aspects of reducing violence (e.g., [Byrne & Hart, 2016](#); [Ellis, 2017](#); [Wilson et al., 1992](#); [Keller et al., 2010](#); [Cardaba et al., 2016](#)) as well as in various other areas, such as safe sex messages (e.g., [Witte, 1992](#)) and anti-smoking and anti-drinking campaigns (see [Prince, Reid, Carey, & Neighbors, 2014](#)) support this conclusion. Moreover, as discussed herein, there is considerable research examining the intertwined hostile cognitive and emotional mediating mechanisms that appear very likely to be activated by didactic intervention programs. In light of such converging “danger” signals and the very wide use of mandated intervention programs across all colleges in the US and similar programs across the world, it is striking that of the many reviews we have read about the efficacy of intervention programs on college campuses, not a single one called attention to the possibility of reactance or boomerang effects.

Consider a medical analogy. Let us imagine that a new vaccine was mandated in all universities but there wasn't any requirement to evaluate its effects. Some studies and related evaluations strongly suggested that there may be adverse effects for those most in need of the vaccine. What would be the response? Why then is there so little attention to the potential danger of adverse effects of current sexual violence interventions on high-risk males, despite the fact that as the literature review presented here suggests, this is quite a likely possibility? We believe that one of the contributing reasons may be the conundrum that may result from calling attention to this possibility. As in the medical analogy, it may result in a halt to all such intervention efforts. Although we don't believe that this would be the correct response, we do believe that there needs to be a reconsideration of how interventions are designed (see [O'Donohue, Lloyd, & Newlands, 2016](#); [Newlands & O'Donohue, 2016](#), for some useful suggestions) and a much greater emphasis on both formative and outcome evaluations of interventions. Further, the current interventions often appear to be geared to the “average” student. Instead, taking into consideration the risk of a boomerang effect and the “particular features” of high-risk males, we believe it would be better to gear interventions more to high-risk individuals but administer them to all participants, since it may not be feasible to select out only the high-risk individuals.

The change in the law in 2013 mentioned at the beginning of this article may have led to a rush to implement intervention programs. The lack of a related requirement to evaluate their effectiveness, which of course is a requirement in any medical interventions, has resulted in a neglect to do so in most instances. Although recently there have been very few universities, such as Dartmouth, that have implemented much more comprehensive interventions than at other universities (i.e., the Moving Dartmouth Forward Plan), the effectiveness of such programs has been questioned ([Sosanya, 2017](#)). It appears that relatively little attention has been given to addressing what has been emphasized in this article, namely the psychological makeup and hostile reactivity of men at high risk.

The literature we have reviewed also suggests that if administrators are aware of the dangers of boomerang effects, they may be reluctant to conduct evaluations lest it is revealed that their current interventions are not working and actually potentially doing more harm than good among those most at risk for committing sexual assault. This would require a much greater commitment of resources to the development, implementation, and assessment of interventions. We believe that the literature we have integrated herein strongly points to the need for such a commitment.



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