

A mixed-methods pilot study of the EAAA rape resistance programme for female undergraduate students in Aotearoa/New Zealand

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Abstract

The Enhanced Assess, Acknowledge, Act (EAAA) rape resistance programme, also known as ‘Flip the Script’, has been shown to reduce rates of sexual assault and attempted sexual assault among female university students. These promising results are specific to the Canadian context where the programme was first developed; therefore, the aim of the current study was to pilot the feasibility of the EAAA programme at a university in Aotearoa/New Zealand. Twenty-five female first year undergraduate students completed the programme, and a control group of 20 first year psychology students provided comparison data. Surveys measuring sexual assault victimisation, rape myth acceptance, and readiness to change were administered to participants immediately before the EAAA programme, immediately after the programme had been completed, and then again after three months. Follow-up qualitative interviews were conducted with six women who completed the programme. Results from this comprehensive pilot suggest that EAAA is feasible and potentially effective, but requires further adaptation for Aotearoa/New Zealand.

Key words

Rape resistance, rape and sexual violence prevention, campus sexual violence, EAAA, residential colleges

Introduction

Rates of sexual violence on university campuses have remained constant despite over 30 years of prevention efforts (Carmody, 2005; Fedina, Holmes, & Backes, 2016; Fisher, Cullen, & Turner, 2000). These efforts have included a range of techniques, including workshops that dispel rape myths, rape resistance programmes for women that teach how to resist sexual coercion, empathy programmes for men aimed to decrease perpetration rates, and bystander workshops that focus on teaching skills to intervene in potentially harmful situations. Many programmes have demonstrated their efficacy in changing participants’ attitudes to sexual violence, but very few have been shown to reduce sexual violence. To date, one of the most promising programmes that demonstrates a reduction in rates of sexual victimisation is a programme for women called the Enhanced Assess, Acknowledge, Act rape resistance programme (hereafter EAAA), also known as ‘Flip the Script’ because it challenges gendered social scripts about relationships and violence. EAAA was designed specifically for first year female university students and tested using a randomised control trial with 900 women across three universities in Canada (Senn, Eliasziw, Barata, Thurston, Newby-Clark, Radtke, & Hobden, 2015). The purpose of the current study was to pilot EAAA in Aotearoa/New Zealand, in order to test its potential for reducing victimisation outside the country in which it was designed. The study therefore forms part of wider international testing of EAAA’s effectiveness.

Background

Studies carried out at universities in the United States consistently report that between 20 and 25 percent of young women experience some form of sexual coercion during their time on campus (Fisher et al., 2000; Koss, Gidycz, & Wisniewski, 1987; Warshaw, 1988). In the context of Aotearoa/New Zealand, little research exists on the prevalence and specific nature of sexual victimisation amongst university students. Recently released data show that across Aotearoa/New Zealand, seven percent of women and two percent of men experienced sexual violation within a 12-month period, and 66 percent of incidents occurred within the 15-19-year age group (Ministry of Justice, 2019). The most recent New Zealand Crime and Safety Survey to provide details specifically about the sexual victimisation of students was published back in 2007 and showed that female students experience a high rate of sexual victimisation (Mayhew & Reilly, 2007). A previous comparable study of undergraduate students was conducted in the early 1990s and revealed that 52 percent of female students had experienced some form of sexual victimisation/unwanted sexual contact, including 11 percent who had experienced attempted rape and 15 percent who had experienced rape (Gavey, 1991). The same study reported that 13.6 percent of men admitted to perpetrating sexual violence, including almost eight percent who reported having perpetrated rape (Gavey, 1991). Despite the lack of recent research on the prevalence of sexual violence on campuses in Aotearoa/New Zealand, there is an urgent need for research on prevention efforts in this area (Beres, Treharne, & Stojanov, 2019). Rates of sexual violence in the broader population are not decreasing (Ministry of Justice, 2019), and recent media reports and student activism by groups like Thursdays in Black Aotearoa New Zealand demonstrate the ongoing community-level advocacy for change that is taking place on campuses (Thursdays in Black Aotearoa New Zealand, 2017). Universities in Aotearoa/New Zealand are beginning to come together and develop a unified approach to address sexual violence, the first steps of which have been to meet with colleagues from Australian universities and learn from the work they are doing at local and national levels (Showden, 2018).

In response to the prevalence of sexual victimisation generally, coupled with the increased prevalence amongst higher education students, numerous sexual violence education programmes have been employed in university settings. Such programmes can be broadly categorised into either prevention programmes focusing on the education of potential perpetrators and/or bystander intervention (Banyard, Plante, & Moynihan, 2005; Cares, Moynihan, & Banyard, 2014), or resistance programmes which endeavour to reduce sexual violence through teaching women to identify coercive behaviours and resist them. Many of the programmes implemented have either not been evaluated for efficacy or have not demonstrated the ability to reduce the prevalence of sexual victimisation on university campuses (for full review, see Cares et al., 2014; Carmody & Carrington, 2000; Henry & Powell, 2014; Senn et al., 2015).

Rape prevention programmes attempt a range of approaches to change behaviours and prevent rape in schools, on university campuses, and in the broader community. While the effectiveness of such programmes has not been thoroughly researched (Henry & Powell, 2014), recent studies suggest the following trends:

- a) Programmes consisting of mixed-gender workshops that focus on dispelling rape myths can be effective at changing attitudes. However, results are varied, with some studies showing null effects, some showing positive attitudinal change, and a few even showing an increase in negative attitudes (Bradley, Yeater, & O'Donohue, 2009; DeGue et al., 2014). There is little evidence to suggest they are effective at changing perpetration behaviours.
- b) Programmes for men designed to reduce perpetration (Newlands & Donohue, 2016) do not have much success in changing participant attitudes. It is also difficult recruiting men for these programmes, making it hard to test effectiveness.

c) Bystander programmes, typically run as mixed-gender workshops, have been shown to be effective for increasing participants' intentions to intervene and also to increase some intervening behaviours. Many bystander programmes (like other sexual violence prevention programmes) have social marketing components, including posters and videos that are designed to be used in the workshops (Cares et al., 2014). The content of these posters and videos varies, but many programmes use them to model positive bystander behaviours.

d) Feminist women's self-defence programmes that also focus on the social context within which rape happens (rather than only self-defence skills) can effectively reduce the number of sexual assaults experienced by those who take the programme (Senn et al., 2015).

While bystander and social norms programmes (those that address attitudes related to sexual violence) hold promise for creating long-term social change, programmes that enable women to protect themselves from existing problems related to sexual coercion are warranted, given the ongoing high rates of sexual violence. EAAA is one such programme that teaches women to identify and resist rape and coercive behaviour (Senn et al., 2015). It originated and was first implemented in Canada with first-year female university students. The programme was designed over a ten-year period with a large randomised control trial involving 900 female participants from across three universities. Results demonstrated a 46.3 percent reduction in completed rapes and a 63.2 percent reduction in attempted rape one year after programme completion (Senn et al., 2015). The programme is intended to take place over 12 hours and is delivered in four modules, typically once a week. Each module is run by two trained peer facilitators, and participant groups typically consist of around 20 women. The modules focus on teaching women to first *Assess* situations to identify potentially coercive behaviour, to *Acknowledge* that this behaviour is coercive, then to *Act* to challenge coercion using verbal and non-verbal resistance strategies. The final module, which has been found to enhance the effectiveness of the programme, focuses on sexuality, health, and relationships (Senn, Gee, & Thake, 2011). Women who explore what they want from a sexual relationship are better able to recognise coercive behaviour and act to prevent it (Senn et al., 2011).

The current project involved a pilot test of the EAAA in Aotearoa/New Zealand, a different cultural context to the one in which it was developed, in order to ensure that the programme is relevant to participants here and addresses particular contextual issues for local women, including indigenous women, refugee women, and migrant women. The programme was thus adapted to reflect the bicultural context in a way that expanded on the original programme, by including legal information specific to Aotearoa/New Zealand, the use of local colloquial language, and a *karakia* to open and close the sessions. It was hypothesised that, compared to a control group, women taking the EAAA programme would show greater reductions in rape myth acceptance, greater increases in readiness to engage in sexual violence prevention, and a greater ability to resist sexual violence. We also aimed to qualitatively explore the feasibility and perceived cultural relevance of the EAAA programme in Aotearoa/New Zealand.

Method

Design

A parallel mixed-methods design was implemented in this pilot study. The first phase involved a non-randomised controlled trial employing a quantitative survey design to measure changes in attitudes and behaviours as a result of taking the EAAA programme. The second phase involved a qualitative follow-up study, using interviews to assess participants' opinions about the EAAA programme and to further assess the suitability of the programme for students in Aotearoa/New Zealand.

Procedures

The EAAA programme took place in a first-year residential college on campus, and a control group was established by recruiting first year undergraduate students through the Department of Psychology's Experiment Participation Scheme. The lead author attended an EAAA 'train the trainer' programme in Canada and subsequently trained two student facilitators to deliver the EAAA programme, with input from an established feminist self-defence teacher during all sessions. Intervention group participants were given the option of three different programme times. The first programme took place over one weekend, the other two programmes took place one evening a week for four weeks. In total, the programme lasts 12 hours.

Quantitative survey (Phase 1)

A baseline survey was administered to the intervention group at the beginning of the first session of the EAAA programme before the facilitators started the session. Participants were asked to bring their computers or tablets with them to the first session as initial consultation confirmed that this was their preferred means of completing surveys, and a generic link to the survey was emailed to all women who had signed up to the EAAA programme immediately prior to their session. Participants' names, telephone numbers, and email addresses were collected at baseline and their surveys were assigned a study ID. Participants' names, contact details, and study ID were entered into a contact database, and the main study data were entered into a separate database including study ID but not names or contact details. Two follow-up surveys were administered to all programme participants via a link sent to them by email, one at the conclusion of the final EAAA programme session and another after three months. The control group were emailed links to the survey at three equivalent times.

In-depth follow-up interviews (Phase 2)

All women who signed up for the EAAA programme were invited to participate in a follow-up interview shortly after completing the programme. The purpose of the interviews was to learn more about participants' perspectives on the programme, in terms of its delivery, content, and cultural relevance. We were interested to learn whether or not students found the material relatable and relevant to the context of Aotearoa/New Zealand.

Data were collected using semi-structured interviews and addressed the following topics: participants' general impressions of the programme, what they valued about the programme, what they would change, and how they experienced the structure of the programme including length and facilitation. A trained research assistant who was not involved in the facilitation of the programme conducted the interviews, which ranged in length from 20 to 45 minutes.

Interviews were transcribed by a professional transcription service and anonymised prior to analysis. Data analysis consisted of an inductive thematic analysis (Brain & Clarke, 2006) focused on perceptions of the EAAA programme, perceived benefits of the programme, and perceptions of areas for improvement.

Recruitment

EAAA programme participants were recruited from female residents of a first-year residential college. The study was introduced to about 60 female residents after a meeting early in semester two, July 2016. Follow-up information was posted on the college's private official Facebook page. A total of 38 students expressed interest in participating and were given the option of three different session times. Of those who expressed interest, 25 attended the first session of the programme and 24 completed the programme, attending all four modules. The final three-month follow-up survey took place outside of regular semester time. Control participants were recruited

via posters placed around the Department of Psychology advertising the need for a control group of female first-year undergraduates. These participants volunteered via an online system and could receive a small amount of course credit for completing a separate educational questionnaire about research design after having completed the study measures online. The majority of these students were studying other subjects in addition to one introductory psychology module.

Sample

Of the women in the EAAA group, 25 completed the baseline survey, 23 completed the post-intervention survey, and 17 completed the three-month follow-up survey (68% of baseline participants). At baseline, the control group consisted of 45 participants (of whom 44 provided survey data), with 28 participants completing the second survey, and 20 participants completing the three-month follow-up survey (44% of baseline participants).

Demographic characteristics of the EAAA group and control group are presented in Table 1. All participants in both groups identified as women. The majority of participants in the control group and EAAA group were aged 18-20 at baseline and the three-month follow-up. In both groups, the majority of the participants were Pākehā. Most of the participants in both groups were studying sciences, followed by humanities and health sciences. In both groups, most participants reported their sexual orientation as straight/heterosexual.

Table 1. Demographic characteristics of the two groups

Characteristics	Category	Baseline		3-month follow-up	
		Control group (n = 45)	EAAA group (n = 25)	Control group (n = 20)	EAAA group (n = 17)
Age	18	34	11	13	9
	19-20	10	14	5	8
	Missing	1	–	2	–
Ethnicity	Pākehā ¹	39	23	15	16
	Māori	2	–	2	–
	Pacific peoples ²	2	–	1	–
	Asian ³	2	–	2	–
	Others ⁴	1	2	1	1
	Missing	1	–	2	–
Course of study	Commerce	–	2	–	1
	Health sciences	5	4	2	3
	Humanities	19	7	7	3
	Sciences	25	13	11	10
	Missing	1	–	2	–
Gender identity	Female	44	25	18	17
	Others	–	–	–	–
	Missing	1	–	2	–
Sexual orientation	Straight/heterosexual	39	23	16	15
	Bisexual/pansexual	3	2	2	2
	Lesbian	1	–	–	–
	Missing	2	–	2	–

Notes

As some were found to classify themselves into multiple ethnic groups and courses of study, the percentages by ethnicity and course of study may not sum up to 100.

- 1 Pākehā includes New Zealander, New Zealand European, European, and British.
- 2 Pacific peoples includes Tongan and Samoan.
- 3 Asian includes Indian, Nepalese, and Burmese.
- 4 Others include Caucasian and those who did not state their ethnicity.

Measures

Sexual Experiences Survey (SES)

The Sexual Experiences Survey (short form) was used to collect data about coercive sexual experiences including rape (Koss et al., 2007). This is the most commonly used scale in sexual violence research and has well-established reliability and validity. Participants were asked about a range of coercive sexual experiences, such as ‘Someone had oral sex with me or made me have oral sex with them without my consent’, and were then asked about five possible ways in which they may have experienced coercion (e.g. ‘Using force, for example holding me down with their body weight, pinning my arms, or having a weapon’). The questions do not rely on participants explicitly identifying their experiences as rape or coercion, but instead are based on legal definitions of rape and unlawful sexual connection in Aotearoa/New Zealand. The experiences are then categorised into the following groups: completed rape, attempted rape, coercion, attempted coercion, and non-consensual sexual contact. Rape (penetrative) and non-consensual sexual contact (non-penetrative sex acts) were defined when the perpetrator used threats, force, or drug or alcohol incapacitation. Sexual coercion was defined as the use of pressure or manipulation to induce compliance for non-consensual penetrative sex acts. We report a one-year recall period from the baseline survey and then any additional experiences between the end of the intervention and the three-month follow-up to avoid double counting experiences during the overlapping period.

Readiness to Change Scale

Certain individuals are more accepting of rape prevention messages than others (Banyard, Eckstein, & Moynihan, 2010). This scale measures the ‘stage’ of readiness to accept such messages (Berkowitz, 2002), thus allowing us to see whether or not the programme works differently for those who report less readiness to change. The scale consists of nine items. Participants respond to the items on a five-point scale, ranging from ‘not at all true’ to ‘very much true’. The scale is divided into three sub-scales. The precontemplation sub-scale consists of three items including the statement, ‘I don’t think sexual assault is a big problem on campus’. High scores on this sub-scale indicate that the participant has not yet begun to think about the necessity of creating change on their campus. The contemplation sub-scale also consists of three statements. High scores indicate that the participant sees that change is necessary, but has not yet acted to make change. This sub-scale includes the item, ‘Sometimes I think I should learn more about sexual assault, but I haven’t yet done so’. The final sub-scale is the action stage. It is composed of three items including, ‘I am actively involved in projects to deal with sexual assault on campus’. High scores on this sub-scale indicate that participants are engaged with efforts to reduce sexual assault.

Illinois Rape Myth Acceptance Scale

The Illinois Rape Myth Acceptance scale was used to determine the degree to which participants endorsed a number of common rape myths. It consists of 20 items, three of which are fillers about beliefs contrary to rape myths in order to minimise set responding. Only the

17 rape myth items are scored. These include items such as, ‘If a woman is willing to “make out” with a guy, then it’s no big deal if he goes a bit further and has sex’, and ‘Women tend to exaggerate how much rape affects them’. Responses were scored on a seven-point Likert scale with participants indicating to what degree they agreed with the statements. High scores on the scale indicate a high level of agreement with rape myths.

To measure if those who took the programme used the skills they learnt in the programme, they were asked in the three-month follow-up questionnaire, ‘Since you completed the EAAA programme, have you had a dating situation where you believe you AVOIDED sexual coercion or assault by your actions (e.g. removing yourself from the situation, calling a friend, etc.)?’.

Results

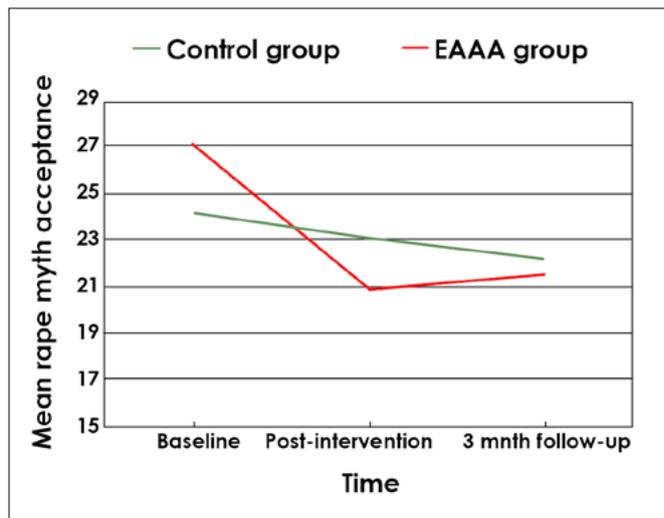
Changes in rape myth acceptance and readiness to engage in sexual violence prevention following the EAAA intervention

The descriptive statistics of rape myth acceptance and the three aspects of readiness to engage in sexual violence prevention are reported in Table 3 for the control and EAAA groups at baseline, post-intervention, and the three-month follow-up. These figures only include the participants who completed all three surveys, as these participants were included in the Analyses of Variance (ANOVAs). These ANOVAs allowed us to statistically compare the two groups of participants (between-group comparisons of the control group and EAAA group) across the three different time points (within-group comparisons of repeated measures) all within the same analysis. The results of the ANOVAs of rape myth acceptance and readiness to engage in sexual violence prevention are presented in Table 4. Post-hoc tests of change over time individually for the two groups are noted in Table 3.

At baseline, the mean rape myth acceptance in the EAAA group was around three points higher than the control group suggesting the control group were less accepting of rape myths. In the post-intervention survey, however, the EAAA group’s mean rape myth acceptance had decreased by over six points and this decrease was maintained at the three-month follow-up. The mean rape myth acceptance decreased slightly at the follow-ups for the control group. In the ANOVA of rape myth acceptance, there was a significant overall effect of time ($p < .001$) and a significant interaction between time and group ($p < .05$) but no overall group difference. In post-hoc tests, rape myth acceptance decreased significantly post-intervention and at the three-month follow-up for the EAAA group, but did not change significantly for the control group (see Table 3 and Figure 1).

In the ANOVA of the precontemplation aspect of engagement in sexual violence prevention, there was a significant overall effect of time and group (both $p < .05$) but no significant interaction between time and group. In post-hoc tests, precontemplation decreased significantly between baseline and post-intervention ($p < .05$) but the three-month follow-up mean precontemplation did not differ significantly from baseline or post-intervention. Precontemplation was also significantly lower among the EAAA group than the control group in the post-hoc test ($p < .05$) suggesting that the EAAA group were less likely to be precontemplative of engaging in sexual violence prevention across all timepoints.

In the ANOVA of the contemplation aspect of engagement in sexual violence prevention, there was only a significant overall effect of group ($p < .01$). In post-hoc tests, contemplation was significantly higher among the EAAA group than the control group ($p < .01$) suggesting that the EAAA group were more likely to be contemplative of engaging in sexual violence prevention across all timepoints.

Figure 1. Changes in rape myth acceptance by group

In the ANOVA of the action aspect of engagement in sexual violence prevention there was a significant overall effect of time, a significant interaction between time and group, and a significant overall group difference (all $p < .001$). In post-hoc tests, action was significantly higher among the EAAA group than the control group ($p < .001$), suggesting that the EAAA group were more likely to be acting and engaging in sexual violence prevention across all timepoints. Action increased significantly from baseline to post-intervention ($p < .001$) and to

the three-month follow-up ($p < .01$) overall. More specifically, action increased significantly post-intervention and at the three-month follow-up for the EAAA group, but did not change significantly for the control group (see Table 3 and Figure 2).

Prevalence of forms of sexual violence

Experiences of forms of sexual violence determined from answers to the SES are reported in Table 2. Absolute numbers and percentages are presented to allow comparison between the EAAA group and control group; the percentages should be interpreted with caution, given the relatively small subsamples and relatively short follow-up period. We report figures for the three-month windows both prior to participating and following the intervention being delivered to the EAAA group, and also the matched period for the control group in order to facilitate direct comparison of equal time windows. We also report figures for the year before baseline (which includes the three months prior to the intervention) and experiences from adolescence up to the year before baseline.

At baseline, three women from the control group reported having experienced sexual violence matching the definition of completed rape within the past year, all of which occurred during the past three months. One participant in the EAAA group had experienced completed rape within the past year but not within the most recent three months. One participant in the control group and one in the EAAA group reported experiencing completed rape between the age of 14 and one year prior to baseline. None of these differences reached statistical significance. No participants from either group experienced completed rape in the three months following the intervention period.

Two participants in the control group and three in the EAAA group reported sexual violence resulting from a perpetrator coercing them between age 14 and a year prior to baseline. One participant in the control group and one in the EAAA group reported sexual coercion in the year prior to baseline but none had experienced this within the most recent three months and none had experienced sexual coercion at the three-month follow-up.

Table 2. Prevalence of forms of sexual violence by group

Form of sexual violence	Prevalence between age 14 and the year prior to baseline		Prevalence over the year prior to baseline		Prevalence over the 3 months prior to baseline		Prevalence over the 3 months following the intervention	
	Control group (n = 44)	EAAA group (n = 25)	Control group (n = 44)	EAAA group (n = 25)	Control group (n = 44)	EAAA group (n = 25)	Control group (n = 20)	EAAA group (n = 17)
Completed rape	1 (2.3%)	1 (4.0%)	3 (6.8%)	1 (4.0%)	3 (6.8 %)	0	0	0
Coercion	2 (4.5%)	3 (12.0%)	1 (2.3%)	1 (4.0%)	0	0	0	0
Non-consensual sexual contact	6 (13.6%)*	10 (40.0%)*	17 (38.6%)	12 (48.0%)	10 (22.7 %)	9 (36.0 %)	2 (10.0 %)	2 (11.8 %)
Any sexual violence	7 (15.9%)*	10 (40.0%)*	19 (43.2%)	13 (52.0%)	11 (25.0 %)	9 (36.0 %)	2 (10.0 %)	2 (11.8 %)
Attempted rape	1 (2.3%)***	8 (32.0%)***	4 (9.1%)	2 (8.0%)	2 (4.5 %)	1 (4.0 %)	0	0
Attempted coercion	3 (6.8%)	5 (20.0%)	4 (9.1%)	4 (16.0%)	0	0	0	1 (5.9 %)
Attempt of any sexual violence	3 (6.8%)**	10 (40.0%)**	7 (15.9%)	4 (16.0%)	2 (4.5 %)	1 (4.0 %)	0	1 (5.9 %)
Averted violence	N/a	N/a	N/a	N/a	N/a	N/a	1 (5.0%)	5 (29.4%)

Six of the women in the control group and ten in the EAAA group reported experiencing non-consensual sexual contact between age 14 and the year prior to baseline. Seventeen of the women in the control group and 12 in the EAAA group reported experiencing non-consensual sexual contact in the year prior to baseline. For women in the control group, ten of the 17 experienced non-consensual sexual contact within the most recent three months, and nine of the 12 women in the EAAA group reported experiencing non-consensual sexual contact within the three-month period prior to taking part in the intervention. Overall, this suggests a higher prevalence of non-consensual sexual contact among the EAAA group prior to taking part. This difference in non-consensual sexual contact led to a higher prevalence of overall sexual violence among the EAAA group – around a third of women taking part in the intervention had recently experienced sexual violence compared to around a quarter in the control group. The differences in non-consensual sexual contact and any sexual violence only reached statistical significance for the period between age 14 and a year prior to baseline. There were also differences between the control group and EAAA group in experiences of attempted rape between age 14 and a year prior to baseline, with the EAAA group more likely to have experienced this type of attempted sexual violence.

At the three-month follow-up, two women in both the EAAA group and the control group had experienced non-consensual sexual contact over the period following the intervention. This represents a similar prevalence rate as the two groups were more equivalent in size at that time. One woman in the EAAA group experienced attempted sexual coercion during the follow-up period, whereas none of the women in the control group had experienced attempted sexual coercion. There was a difference between the two groups in the number of women who had averted sexual violence in the previous three months, with one woman reporting this from the control group compared to five women from the EAAA group, who also noted that they had used skills learnt during the programme to achieve this. However, this difference did not reach statistical significance (Fisher's exact $p = .08$).

Table 3. Descriptive statistics of rape myth acceptance and readiness to engage in sexual violence prevention by group

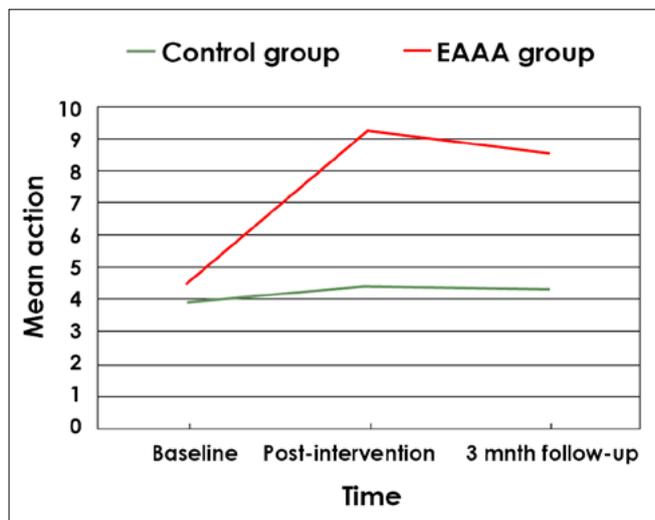
Measures	Control group (n = 15)			EAAA group (n = 17)		
	Baseline	Post-intervention	3-month follow-up	Baseline	Post-intervention	3-month follow-up
Rape myth acceptance						
Mean (SD)	24.20 (7.78)	23.07 (9.28)	22.20 (7.91)	27.12 (8.48)	20.82 (5.08) **	21.47 (5.11) ***
Range	18-48	17-52	17-47	17-45	17-35	17-34
Pre-contemplation						
Mean (SD)	7.13 (1.88)	6.67 (1.35)	6.73 (1.62)	6.29 (1.61)	4.94 (2.01)	5.53 (2.15)
Range	4-11	4-9	3-9	4-9	3-10	3-10
Contemplation						
Mean (SD)	9.00 (2.59)	9.53 (1.51)	9.60 (2.32)	11.76 (1.75)	11.65 (1.50)	10.53 (1.55)
Range	5-15	7-13	6-15	9-15	9-15	8-13
Action						
Mean (SD)	4.00 (1.85)	4.40 (1.55)	4.27 (1.91)	4.47 (3.02)	9.24 (2.84) ***	8.59 (2.90) ***
Range	3-9	3-7	3-9	3-13	4-13	3-14

Difference from baseline in post-hoc tests: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 4. Analyses of changes over time in rape myth acceptance and readiness to engage in sexual violence prevention by group

Measures	Mauchly's test of sphericity				Tests of within- and between-participant effects					
	Mauchly's W	df	χ^2	p	Effect	df	SS	MS	F	p
Rape myth acceptance	0.83	2	5.43	.066	Time	2	302.0	151.0	12.27	< .001 ***
					Time \times gp	2	112.16	56.08	4.56	.014 *
					Group	1	0.01	0.01	0.00	.994
Pre-contemplation	0.86	2	4.33	.115	Time	2	13.54	6.77	4.30	.018 *
					Time \times gp	2	3.16	1.58	1.01	.372
					Group	1	37.73	37.73	5.71	.023 *
Contemplation	0.97	2	0.758	.685	Time	2	4.47	2.23	0.96	.387
					Time \times gp	2	13.80	6.90	2.98	.058
					Group	1	89.60	89.60	14.49	.001 **
Action	0.92	2	2.447	.294	Time	2	123.53	61.77	14.27	< .001 ***
					Time \times gp	2	90.70	45.35	10.48	< .001 ***
					Group	1	246.20	246.20	26.17	< .001 ***

* $p < .05$; ** $p < .01$; *** $p < .001$

Figure 2. Changes in the action aspect of readiness to engage in sexual violence prevention

Qualitative findings

Overall, the participants spoke highly of the EAAA programme while also presenting constructive feedback that will be useful for its future development. The analyses were divided into key areas based on interview structure and the information provided by the participants. These themes can be divided into two main areas: content and delivery. Discussions of programme content focused around increased knowledge, increased confidence, and cultural relevance. With regard to programme delivery, participants

discussed feeling at home, timing, and the strengths of the facilitators. All names presented in this section are pseudonyms.

Programme content

All the participants enjoyed the EAAA programme and felt they got a lot out of it. There were two main types of perceived benefits; increased knowledge and increased confidence.

Increased knowledge. The participants talked about how they became more aware of the facts around sexual violence, particularly how common it is, and how to recognise when someone is being coercive:

And I didn't realise like um sexual coercion, it's a big deal isn't it, like I, when I think of sexual violence, I think of *like* the physical acts and all that but I didn't realise that lying and like manipulating and guilt tripping was also included in that so I guess in that sense, I'm more aware of it and feel like it happens a lot more than it should ... but for me personally, I think because I know more about it, I'm more, like I can protect myself a bit more. (Ashley)

Increased confidence. Connected to increased knowledge, participants experienced increased confidence, both to recognise a coercive situation and to be able to handle it:

Yeah definitely, like even though before, like 'cause I didn't really know but just knowing now that I can be in control of situations and know that if something happens, that I'll feel like I had some confidence, like even if it's not me but if something happens, like someone else is in a compromising situation, like I definitely feel like I'll have a lot more confidence than I did before to say something. (Tammy)

And I think for me in the future ... like for me, it came across to ... when I'm out, I don't have to be like, you know if I'm in a situation, I don't have to be nervous about being in it because I know at the end of the day, like I can get out of it and be aware of what I have and what like I'm allowed to do and what belongs to me, I make sense of my personal being um, yeah, I think that's the one thing I took from it. (Ashley)

For some participants, like Ashley, the increased confidence was not just about feeling able to respond to coercive situations, but allowed her to feel generally more confident in social situations. Attending the programme has enabled her to be more relaxed when she goes out because she knows how to be aware of her surroundings and trusts she can respond appropriately to coercive behaviour if necessary.

One of the key messages of EAAA is to recognise early signs of coercive behaviours and to develop skills to challenge and/or question these behaviours. For example, Sarah reported that her increased knowledge and confidence led her to realise that she does not have to wait until a situation is dangerous before doing something about it:

Um I think it's, like I think the thing that changed my mind about it was that it doesn't just have to be like, sexual violence can be like before like you're actually in it, like it can be before that like it can still count and ... like that you can't just let it get to the end point before you have an issue with it, like you can't just be like oh no this is, you know like it's just them and like you can stop it way before that. (Sarah)

Cultural relevance. A main component of the EAAA programme are scenarios depicted in videos, which participants watch and discuss. For instance, one video shows a heterosexual couple at a party and participants are asked to identify behaviours that could be coercive. This is to allow participants the chance to practice recognising such behaviours. Participants were attuned to the fact that these videos feature North American actors and settings:

I did, I felt the ... I found them helpful but I found them like a bit too American ... like I think these situations don't happen as much as they would like so like a Kiwi version would be good. (Ashley)

This comment is particularly concerning because it has potential implications for the effectiveness of the programme. A couple of participants mentioned the North American accents of the actors in the video, but perhaps the most concerning comment was that the participant perceived that sexual violence happened more frequently in America than Aotearoa/New Zealand so was not sure of the relevance of the videos. This suggests that they may have discounted the messaging about sexual violence in the videos.

Programme delivery

Feeling at home. Feeling comfortable and 'at home' was key for the participants to participate in the programme. Feeling at home came out in several different ways in the interviews. Firstly, being able to take part in the programme with their friends was important. Several participants mentioned that they attended the programme with friends and/or that they enjoyed getting to know other residents of their college better through participating together. For Ashley, she felt it was important that her friend took part in the programme, so she thought she would go along as well:

Um it came through our hall and I guess um I felt that it was good for one of my friends to go so I decided that I would go and ___ it was like yeah I'll do it if you do it and that's pretty much how it happened ... especially for my friend and she found it helpful so I was like I'll go with you, yeah that's how it happened. (Ashley)

As well as the benefits of taking the programme with friends, participants also pointed out that it was advantageous to have the programme in their residential college. Being at 'home' for the programme provided an easy way to participate:

Yeah that was nice 'cause you didn't, like we were still comfortable in your own environment and you didn't feel, it wasn't like you had to like travel out to go and do this thing where you're not sure what it's gonna be like or it was just comfortable. (Ashley)

Yeah that was actually really good, just because um I think if we'd gone, had to go to places, it takes time out, like it would've made it, the whole process a lot longer and especially like being Health Sci 'cause like all of us were Health Sci so we had like no time ... and like just going downstairs and then running back upstairs when we forgot our laptops and it just made it really easy. (Sarah)

Timing. Participants had different views about the best time of year to hold the programme. Some felt that early in semester two (July–August) was a good time of the year to have the programme. There were two reasons for this. By that time of the year, they would have already had the opportunity to get to know other women in their college, including those who

were taking the programme, and so would feel more comfortable participating themselves. Moreover, an early date in semester two ensured that the programme was held before exams and before major assignments were due:

Um ... oh no I think it was a good time of year because like you've made friends with people by now and so you're more comfortable around them talking about this sort of thing but it's not too late in the year that it's like exam period. (Moana)

However, some participants also felt that there was potential for the programme to be held in semester one, nearer the start of the academic year. They thought that, as students have more nights out earlier in the year, it might be useful for them to have participated in the EAAA programme before this:

Maybe for like halls and things, for first year Uni students, it would be good having it at the start of the year ... 'cause sort of that's when they're all going out and stuff and so sort of they could know what they do and don't want. (Tammy)

Timing is an important issue. Ideally, the programme would be as early as possible in the academic year to provide women with these skills. The reality, though, is that there are a lot of other social and academic activities going on in residential colleges at the beginning of the year, so the programme may not be as well attended.

Facilitators. One of the keys to the success of the programme is the highly trained facilitators. All participants remarked about how comfortable they felt with the facilitators, and how that aided their learning throughout the programme:

I thought they [the facilitators] were really lovely ... yeah, like that they, like the way they were talking and like interacting with each other was really nice, like it made you feel really comfortable and even the bits that we weren't comfortable with, they like made you feel comfortable. (Sarah)

Because the programme topics are quite serious and personal, several participants mentioned the careful use of humour by the facilitators:

Oh I thought they were really good, um yeah they just, they knew when to like have fun and then be serious and um yeah you could feel real confident with them. (Heather)

Appropriate use of humour thus enabled the participants to feel more comfortable and to get more out of the programme.

Discussion and conclusion

This mixed method pilot study has provided a novel exploration of the possibility of employing the EAAA programme at universities in Aotearoa/New Zealand. It also adds to international literature on the effectiveness of such programmes in different cultural contexts. Consistent with previous EAAA-focused research (Senn et al., 2017), women in the EAAA group in this study reported less rape myth acceptance three months post-EAAA. There was also an increase in readiness to change among those participating in the intervention. It was difficult to determine the effectiveness of decreasing rates of sexual violence due to the small sample sizes and relatively short follow-up periods, yet five out of the 17 participants said they have used the skills developed through EAAA to interrupt a potentially coercive dating situation. Those who participated in the interviews noted that they enjoyed the programme, and reported that they found it valuable. Their comments also provide suggestions for how to structure the future delivery of the EAAA programme in Aotearoa/New Zealand.

The ability for students to take the programme in a familiar space with other women they know was an asset, and facilitated a feeling of comfort with the programme. At the same time, they valued the peer-led facilitation. Of concern was the participants' perception from being shown American videos that sexual violence is of greater concern in the United States than it is in Aotearoa/New Zealand. This finding is consistent with public health literature that demonstrates targeted and culturally relevant materials have greater impact than universal materials, or those produced for other cultural settings (Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2003).

Results from the survey suggest that rates of sexual violence and problematic or coercive sexual behaviour experienced on campus by our research participants were consistent with rates on other university campuses (Fedina et al., 2016). Because this was an exploratory evaluation study, all women who took the EAAA programme were invited to complete the surveys but the sample was limited by the number of people taking the programme. This limited the statistical power of the quantitative analyses, and therefore the findings should be interpreted with caution. Yet, our participant numbers are consistent with initial start-ups of EAAA on other campuses in North America (C. Senn, personal communication, 8 June 2017). Moreover, as the programme becomes known to students, enrolments tend to increase substantially (C. Senn, personal communication, 8 June 2017).

Another limitation of the study is the self-selection process of the participants in the EAAA group and control group and the different retention rates. It is possible that these participants differ from other students in their first year of undergraduate study and also from older students and the general population. For example, although some of the participants reported having experienced sexual violence in the past, other women with such experiences may not have wanted to take part in the programme. It is also a limitation that we did not randomise participants into the EAAA group and control group. Future research could apply a waiting-list control group approach by delivering the intervention later to some participants. However, this presents ethical dilemmas of withholding an effective intervention long enough to show the (potentially detrimental) effects of such a delay. There are also pragmatic concerns about when in the academic year the intervention could be delivered effectively to the primary intervention group and waiting list group.

The present study was limited by its short follow-up period. While past research has involved longer follow-up periods (e.g., Senn et al., 2015), the present study was constrained by the pragmatic need to report back to the University promptly in order to inform ongoing funding of the programme, as we are continuing to evaluate it with subsequent cohorts. Despite this short follow-up period, the skills developed during the EAAA programme were applied by five women over the three months. The qualitative interviews provided further insights into the programme and participants' application of the skills they had learned but we were only able to interview a small proportion of participants. Further in-depth qualitative research and ethnographic methods could be applied to provide a more developed model of engagement with rape resistance programmes and assist in developing materials such as videos specific to the local context. A strength of our study is that the interviews were carried out by an experienced student acting as a peer interviewer and another trained student led the qualitative analyses with input from other authors. Future research could expand on this by trialling EAAA across a number of educational institutions and including more community engagement, such as peer leaders to encourage participation in the programme and reinforce its attempts to challenge cultural myths about sexual violence, as well as building women's insights and skills around this topic. Further stages in the development of the Aotearoa/New Zealand version of EAAA include deeper engagement with Māori, Pasifika, and international students to develop further

adaptations to ensure the cultural relevance. For instance, future research could explore running sessions specifically for Māori or Pasifika students and then gather feedback from them about the cultural connectedness of the programme.

The results of the present study suggest the following for other organisations looking to implement similar programmes in other settings. Programmes should be adapted to ensure relevance to local culture. This often means re-creating the videos and other resources to ensure that students find them relatable and meaningful. With these local changes there is potential for this programme to be successfully adapted to new contexts.

In conclusion, the results of this study provide an initial indication that the EAAA programme is feasible in the context of universities in Aotearoa/New Zealand and benefits from being run in a residential college by peer facilitators. The quantitative findings demonstrate potentially beneficial effects of EAAA on reducing rape myth acceptance, even for a group starting with low acceptance of these myths. Moreover, readiness to change increased over the programme and the EAAA skills were used over the three-month follow-up in a considerable number of cases. The qualitative findings triangulate these benefits and provided insights into what worked well about the programme, as well as highlighting the need to include local example videos to challenge the myth that rates of sexual violence are lower than they actually are in Aotearoa/New Zealand. Ongoing research is needed to evaluate any contextual adaptations to EAAA or other similar programmes and continuing long-term quantitative evaluation and qualitative exploration is recommended wherever such programmes are applied.

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Acknowledgements

This study was funded by a grant from the Vice-Chancellor's Fund of the University of Otago. We thank Prof Harlene Hayne for supporting the research, and we thank the women who took part in the study and the college staff who supported the study.

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