



Impact of a Training Programme on Police Attitudes Towards Victims of Rape: a Randomised Controlled Trial

Zoe McKee¹ · Katrin Mueller-Johnson² · Heather Strang³

Published online: 30 April 2020

© The Author(s) 2020

Abstract

Research Question Does an in-service training programme designed to address the attitudes of student officers, uniformed response officers and specialist rape crime investigators towards victims of rape change their perspective on adult victims, both male and female, who report rape offences?

Data Police officers from four separate policing roles completed questionnaires designed to measure their attitudes towards victims of rape. The questions were already validated and used four specific subscales: ‘Asked for it’, ‘Didn’t mean to’, ‘It wasn’t really rape’ and ‘S/he lied’. Two questionnaires, one focused on male victims and one on females, were administered at different points in time.

Methods This randomised controlled trial used a block design, randomly assigning eligible police officers to treatment and control conditions within each of four groups. Participants were grouped as rape detectives ($N=40$), uniformed response officers in urban areas ($N=50$); uniformed response officers in rural areas ($N=50$) and student officers ($N=53$). Officers in the treatment condition undertook a bespoke training programme, based on an online College of Policing e-learning programme, enhanced with audio and video content, discussion groups and short online webinar sessions delivered by a psychologist specialising in sexual offending. Both groups were surveyed before and after the treatment group was trained.

Findings The training programme resulted in positive attitude changes towards male and female rape victims when responses are combined across all four police groups (but not within all groups separately) compared with the attitudes of those who did not undertake the training. Effects were found for both levels of rape myth acceptance and assessment of victim credibility. The effect was largest for the subscales ‘S/he lied’ and ‘it wasn’t really rape’. Training had more effect on attitudes towards female victims than towards males and more effect on uniformed response officers than on other categories of officers.

Conclusion The use of this mixed online webinar and in-person discussion group training delivery was effective in changing attitudes towards rape victims on issues relating to the treatment of people who report being raped.

✉ Heather Strang
hs404@cam.ac.uk

Keywords Rape myth · Rape · Randomised controlled trial · Victim credibility · Police attitudes · Sexual crime

Introduction

Rape is a paradox because, so often, victims are blamed for the offence (Maier 2014). Perceptions of rape can be predisposed to stereotype, bias and gender prejudice which may contribute to the high attrition rate at every stage of the justice system. Only an estimated 15% of rape victims report the crime to the police (Ministry of Justice 2013), though even this figure should be interpreted cautiously. Russell and Hand (2017) suggest that the true number of individuals who do not report a sexual offence to the police may be unquantifiable.

Among the most common reasons victims do not report rape, two stand out: self-blaming attitudes and victim belief that others would blame the them (Grubb and Turner 2012). These factors are connected to problematic assumptions about what constitutes a ‘typical rape’ and the likely behaviour of victims and perpetrators. These attitudes are often referred to collectively as ‘rape myths’ (Maier 2014), which distort the antecedents and consequences of the act. Addressing these attitudes and beliefs may contribute to closing the ‘justice gap’ (Temkin and Krahe 2008) for victims of rape.

Beliefs and Attitudes of Officers

Given that police officers are the first contact victims of serious sexual offences have with the criminal justice system, it is especially important if, as Temkin and Krahe (2008) argue, adherence to rape stereotypes affects officers’ judgement and approach to investigations. While many factors may influence officers’ attitudes towards rape, Parratt and Pina (2017) found that those who displayed a higher level of rape myth endorsement were likely to perceive a victim as less credible, more responsible and attribute less blame to perpetrators of serious sexual offending. Moreover, male officers tended to hold more negative attitudes towards victims than female officers (Page 2007; Brown and King 1998; Suarez and Gadalla 2010), and Brown and King (1998) found no difference between police officers’ stereotypical attitudes and a sample of the wider (student) public.

Research findings suggest that rape myths can create an impact on decisions to report, perpetrate or prosecute. To ameliorate negative attitudes and adherence to rape myth attitudes among police officers, Anderson and Whiston (2005) suggest that the remedy lies in education and training. Yet little is known about the impact of police training and the resulting effects on attitudes and behaviour towards rape victims in England and Wales (Sleath and Bull 2012) and even less about its value for the Police Service of Northern Ireland (PSNI).

The PSNI Training Programme—Targeting Attitudes Towards Rape Myths

The purpose of developing and testing the PSNI training programme was to help trainees explore and challenge misconceptions about rape, its impact on victims and the subsequent investigative process. An existing online course provided the foundation

for the PSNI test. This course was provided by the College of Policing (COP) NCALT (National Centre for Applied Learning and Technologies) and is available to all UK police forces utilising NCALT. Prior to the study, within the PSNI the online course was only ever viewed a small number of times by trainers—not by trainees.

PSNI took the learning aims of the online package and themed a programme around these, utilising discussion, theory, audio and video content, as well as online webinar sessions delivered by Dr. Nina Burrowes, a psychologist specialising in sexual offending and open source material from psychotherapist, Dr. Zoe Lodrick. In collaboration with the Cambridge University Police Executive Programme, PSNI then tested the course in a randomised controlled trial.

Research Question

The research question for this trial was whether officers who received the training would change their attitudes towards rape myth acceptance more than those who did not receive the training. The question was explored with four groups of officers in four different roles, so that PSNI could see whether the effect of the course varied by the kind of work the officers were doing.

Data

This study was conducted within the Police Service of Northern Ireland (PSNI) between April and September 2018. Participants were serving officers and student officers from across the entire PSNI geographical area as follows: specialist rape officers ($N=40$), uniformed response officers in urban locations ($N=50$), uniform response officers in rural locations ($N=50$) and student officers ($N=53$). Measures of attitudes were taken via a survey questionnaire for both the treatment and control groups at baseline (T1), again for the treatment group immediately after the 4-h training session (T2) and again for both groups 6 weeks later (T3). The data used to evaluate the effects of the training programme consisted of the responses of the officers in the trainee group at T1, T2 and T3, and in the control group at T1 and T3.

Outcome Survey: Measuring Attitudes of Rape Myth Acceptance

The outcome measure for this training was the degree of ‘rape myth acceptance’ (RMA) participants in this study showed. RMA is understood to endorse generally false, but persistently held, attitudes and beliefs (Temkin and Krahe 2008; Lonsway and Fitzgerald 1994). Over the past 40 years, various tools have been developed to measure RMA. The instrument used in this current research builds on scales that have been validated by demonstrating high levels of reliability (McMahon and Farmer 2011). The framework uses four subscales: She (or he) asked for it; It wasn’t really rape; He did not mean to; She (or he) lied. The answer format in the 22-item questionnaire, was, for each item, a five-point Likert scale, ranging from 1 = ‘strongly agree’ to 5 = ‘strongly disagree’. Each item was part of one of these four subscales. The items are included

in the Appendix to this article. In this study, a higher score was coded as a greater rejection of rape myths.

Subscale 1: 'S/he asked for it' (6 items, maximum score = 30; Cronbach's alpha female version = 0.73; Cronbach's alpha male version = 0.81)

This myth suggests that victims cause their rape through dress, demeanour, being a certain 'type', initiating sexual intimacy and or consuming alcohol (Burt 1980; Lonsway and Fitzgerald 1994; Lovett and Horvarth 2009).

Subscale 2: 'He didn't mean to' (6 items, maximum score = 30; Cronbach's alpha female version = 0.64; Cronbach's alpha male version = 0.76)

This myth refers both to a general excusing of male perpetrator behaviour and to the specific role of intoxication. The latter suggests that victims who are intoxicated are more responsible for the rape than perpetrators, who are credited as being less responsible because of alcohol consumption (McMahon and Farmer 2011).

Subscale 3: 'It wasn't really rape' (5 items, maximum score = 25; Cronbach's alpha female version = 0.69; Cronbach's alpha male version = 0.85)

The collective myths in this category refer to assumptions about physical force used by the perpetrator, injuries sustained by the victim or the degree of resistance, none of which need exist for a rape to take place.

Subscale 4: 'S/he lied' (5 items, maximum score = 25; Cronbach's alpha female version = 0.82; Cronbach's alpha male version = 0.88)

This myth refers to assumptions about the number of false reports of rape made by victims, when it has been estimated that only 2% of reports to the police are false (Lonsway and Fitzgerald 1994).

The survey was the subject of peer review and pilot with officers not involved in the experiment. The original version by McMahon and Farmer (2011) focused only on female victims of rape, so a second survey for male victims was developed, utilising the same questions with wording changes made for victim gender. The overall scale had a high level of reliability for both the female version (Cronbach's alpha at baseline = 0.84) and the male version (Cronbach's alpha at baseline = 0.90).

Methods

The research design was a randomised complete block design (RCBD) (Ariel and Farrington 2010), in which officers were allocated randomly to either treatment or control within the four pre-identified blocks. The criterion for the blocking process related to officer role, whereby the subgroups were intended to be as homogenous as possible. In each subgroup, half of the participants were randomly assigned to receive the training programme.

Prior to randomisation within each of the four blocks, a further condition in the form of pairing based on gender was used to generate equal gender distributions within the T and C groups of each of the four block random assignments. The only exception to the gender pairing was for the student officer group, which had only seven females in the cohort. For the student officers, simple random assignment was utilised to select trainees and controls. Once matched (or not), random assignment was conducted using a web-based random number table (Bachman and Schutt 2017).

The characteristics of the four blocks are as follows:

Block 1: Specialist rape crime detectives already working in the field of rape crime across the organisation. They had varying degrees of experience and training in working with victims and cases of sexual violence.

Blocks 2 and 3: Urban and rural frontline uniformed officers who provide initial response to sexual crime incidents and had limited prior training in investigations of sexual offences. For the purposes of this experiment, they were only eligible if they had served with a minimum of 1 year's operational experience.

Block 4: Student officers newly appointed to the police service and in the very early stages of training in a foundation programme. Their first involvement in the experiment was on day 4 of their foundation recruit training programme.

The administration of the survey questions for the treatment group was consistent at T1 and T2, and the environment and processes were well controlled. Both treatment and control group participants were asked to attend specific locations and times to complete the survey, when the questionnaires were administered. Both groups were administered both questionnaires: one questionnaire was female-victim-focused and the other male-victim-focused. With the exception of the student officers, all interviews took place within their normal paid shift pattern. To complete the student group surveys, students remained behind after their working day, on a voluntary basis to participate.

Participants were supervised during completion of the survey and were instructed that participation was anonymous and voluntary. At T1, treatment and control groups were at the same location but separated, and both had minimal information about the purpose of the survey. At T2, immediately after the training, only the treatment group answered the survey questions again.

In the 6-week follow-up at T3, due to operational impact and cost, the surveys were administered to both treatment and control operational officers by appointment at their individual work sites, individually or in small groups at the start of shift. The surveys were administered by officers not involved in the research project. Whilst not ideal, it was the best that could be done in the circumstances. However, the student officers at T3 were brought to a single location, and the same approach used at T1 was employed.

Findings Overall, the findings indicate the training programme resulted in positive changes in officer attitudes towards male and female rape victims in terms of reducing rape myth acceptance and increasing victim credibility (the latter results are not reported in this article). These effects were largest for the rape myth acceptance subscales 's/he lied' and 'not rape'. Officers, particularly males, differed in their attitudes towards male and female rape victims, displaying a higher level of rejection

Table 1 Total sample T1 female victim survey

Female survey T1	Treatment			Control			Signif. test	Effect size
	Mean	SD	N	Mean	SD	N		
Subscale 1 She asked for it	24.9	3.59	84	24.81	3.48	86	$t(168) = -0.167$ $p = .867$	0.026
Subscale 2 He did not mean to	23.25	3.55	83	23.48	3.01	85	$t(166) = -0.452$ $p = 0.652$	-0.07
Subscale 2 Not rape	23.48	1.94	84	23.13	2.21	86	$t(168) = -0.252$ $p = 0.801$	0.168
Subscale 4 She lied	15.73	3.42	83	16.51	3.48	86	$t(167) = -1.462$ $p = .146$	-0.168

of rape myths for male victims than for female victims. There was also minimal decay effect between T2 and T3 for those in the treatment group.

Difference in Attitudes Between Groups of Officers at T1 (baseline)

At baseline, 171 participants (officers and students) completed the survey (84 in the treatment group and 87 in the control group), with completion rates of 85% for the treatment group and 87% for the control group.

The results showed the treatment and control groups were generally equivalent at baseline across all blocks (see Table 1 and Table 2), with no significant differences between the attitude scales of T and C officers.

Effectiveness of the Training Programme: T1–T3 Differences

In assessing effectiveness, the responses at T1 and T3 were compared for both treatment and control groups for the male victim and female victim surveys.

Table 3 shows that for all treatment and control officers combined across the four blocks, the reduction in rape myth acceptance for female victims was significantly and substantially greater for treatment officers than for control officers. This greater change for the T group was found for all four of the scales for attitudes towards female victims.

Table 4 shows T1–T3 changes in attitudes towards male victims. In this survey, only two of the four dimensions showed more change for the treatment group than the control group: “he didn’t mean to, and “he lied.”

Table 2 Total sample T1 male victim survey

Male victim survey T1	Treatment			Control			Signif. test	Effect size
	Mean	SD	N	Mean	SD	N		
Subscale 1—Asked for it	25.04	4.10	84	25.22	3.61	86	$t(168) = -.313$ $p = 0.75$	-0.05
Subscale 2—Didn’t mean to	24.39	3.63	83	24.89	3.47	85	$t(166) = -0.938$ $p = 0.35$	-0.17
Subscale 3—Not rape	23.26	2.19	84	22.95	2.47	85	$t(165) = 0.850$ $p = 0.39$	0.13
Subscale 4—He lied	16.88	3.91	83	17.82	3.96	85	$t(166) = -1.553$ $p = 0.122$	-0.24

Table 3 Total sample female victim survey T1–T3 difference

Female survey T1–T3 difference	Treatment		Control		N	SD	T test <i>t</i>	Cohen's <i>d</i>	Confidence interval	
	Mean diff	SD	Mean diff	SD					Lower	Upper
Subscale 1: She asked for it	- 1.52	2.748	- 0.5949	2.98	81	79	<i>t</i> (158) = - 2.07 <i>p</i> = 0.04	- 0.364	- 0.6384	0.0144
Subscale 2: He did not mean to	- 2.3797	4.099	- 1.11	3.326	79	78	<i>t</i> (155) = - 2.12 <i>p</i> = 0.036	- 0.3399	- 0.655	- 0.0248
Subscale 3: Not rape	- 0.55	1.999	0.3291	2.128	80	79	<i>t</i> (157) = - 2.68 <i>p</i> = 0.008	- 0.4259	- 0.7403	- 0.1115
Subscale 4: She lied	- 3.519	3.536	- 1.594	2.954	79	79	<i>t</i> (156) = - 3.71 <i>p</i> = 0.000	- 0.5908	- 0.9094	- 0.223

Table 4 Total sample male victim survey T1–T3 difference

Male survey T1–T3 difference	Treatment			Control			N	SD	T-Test	Confidential interval			
	Mean diff	SD	N	Mean diff	SD	N				Cohens d	Lower	Upper	
Subscale 1 He asked for it	-1.6543	3.43	81	-0.8228	2.938	79			$t(158) = -1.644$	$p = 0.102$	0.05	-0.259	0.3609
Subscale 2 He did not mean to	-1.8481	4.157	79	-0.4545	3.6	77			$t(154) = -2.236$	$p = 0.027$	-0.3581	-0.674	-0.0417
Subscale 3 Not rape	-0.0741	2.778	81	0.218	2.489	78			$t(157) = -0.697$	$p = .487$	-0.11	-0.4228	0.2016
Subscale 4 He lied	-2.963	4.007	80	-1.4286	-1.4286	77			$t(155) = -2.765$	$p = 0.006$	-0.4416	0.7583	-0.1249

Specific Training Effects Based on Officer Group

Rape Specialist Officer

Specialist officers in the treatment group did not show a statistically significant higher rejection than nontrainee controls of any of the four rape myths, following training, for either the male or female victim survey. This may be due to the fact they already have a sound knowledge, are trained to a higher level and work within the arena of sexual crime daily. They may also have an increased likelihood to respond more desirably given this is their specific arena of work. It is also possible that specialist officers are more ‘jaded’ in their views and not as open to change, due to the level of daily exposure to victims of rape. The potential for presenting as ‘desensitised’ is much higher for this group of officers (Stamm 2005; Figley 1995).

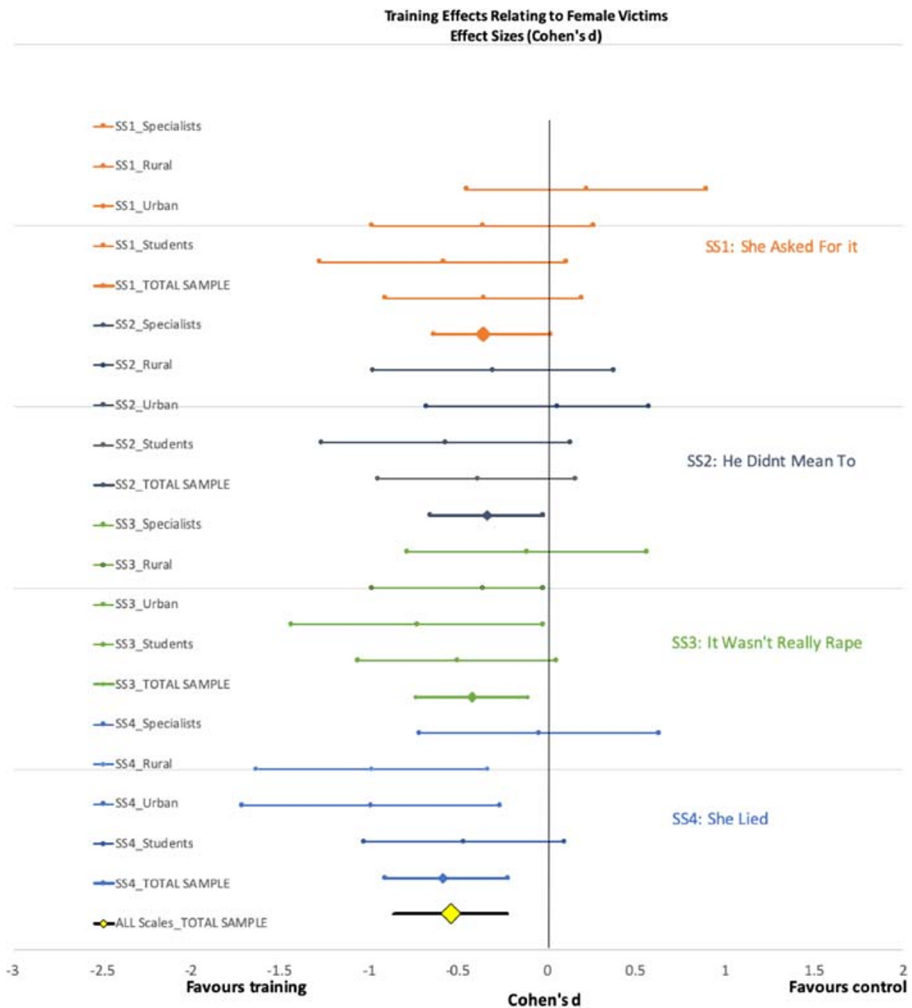


Fig. 1 Training relating to female victims: forest graph of effect sizes (Cohen's *d*) and confidence intervals, with the yellow diamond showing the overall effect size across all measures treated equally

Frontline Rural

For both male and female victims, the training only had discernible impact on rural officers for one of the four subscales: the ‘s/he lied’ subscale ($p = 0.001$; $p = 0.003$, $ES = -0.98$). There was no significant difference for the other subscales.

Frontline Urban

For female victims, the training had a clear impact on the attitudes of urban officers for the ‘not rape’ ($p = 0.046$, $ES = -0.73$) and ‘she lied’ subscales ($p = 0.008$, $ES = -0.99$); whilst for male victims of rape, there was clear impact only for the ‘he lied’ subscale ($p = 0.03$, $ES = -0.75$).

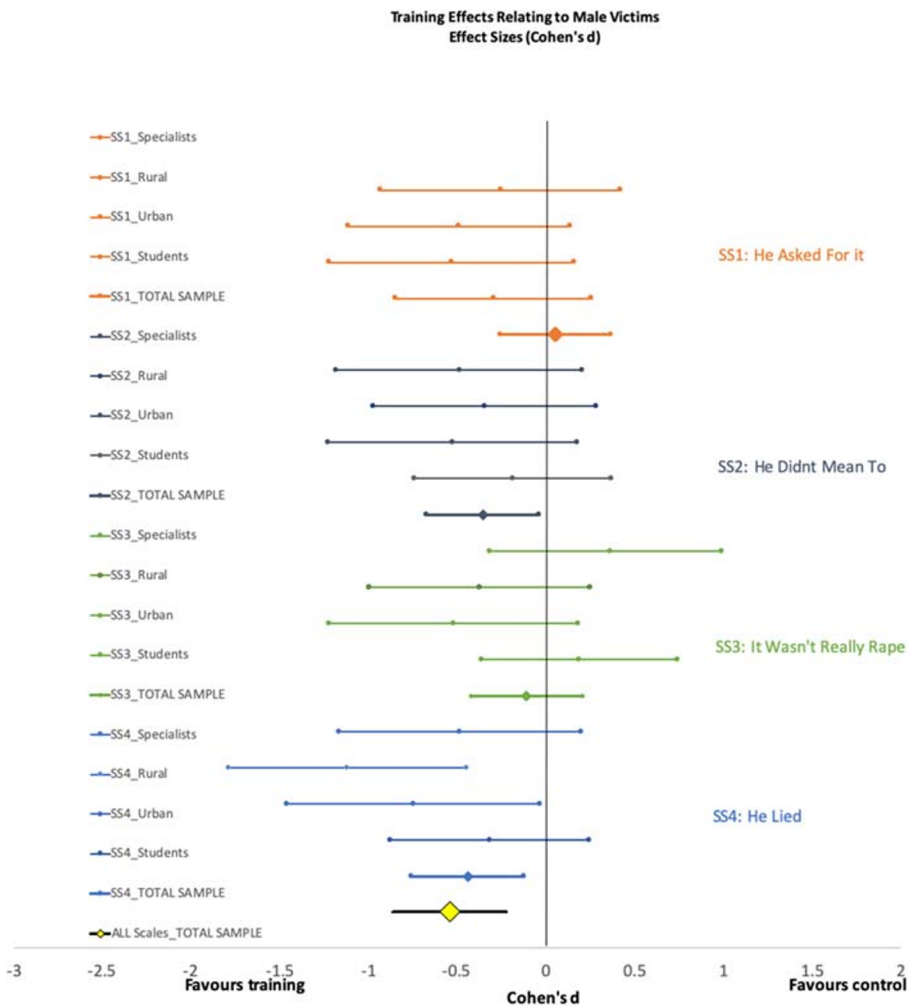


Fig. 2 Training relating to male victims: forest graph of effect sizes (Cohen's d) and confidence intervals, with the yellow diamond showing the overall effect size across all measures treated equally

Student Officers

There was no statistically significant training effect on the attitudes of student officers. This may be due to the fact they already had not yet been influenced by the cultural or group influence associated with policing or developed specific behaviours, secondary to attitudes due to their lack of exposure to these victim types (Garner 2005).

The T1–T3 difference-in-difference effects of training in each of the four blocks, for each of the four measures, are presented in Fig. 1. This figure uses a “forest graph” to display the point estimate of the effect size, which is larger when it lies further away from the centre vertical line. The graph also shows the extent of uncertainty around each effect size, with the horizontal line on either side of the point estimate showing more uncertainty when it is wider, and less uncertainty when it is smaller, on both sides of the estimated effect size.

Decay

Measurement of within-treatment-group decay was taken from the responses at T2 (immediately after training) compared with those 6 weeks later (T3) (Fig 2).

Whilst there is usually an expectation of decay in training over time (Blume et al. 2010), this analysis revealed only a minimal level of learning decay among those who experienced the training. The exception here was the student group, which was unsurprising given that the students were new to the police training environment and were the subject of a variety of new learning experiences in 6 weeks between T2 and T3. They also had no reference point in terms of rape victim contact or experience from which to draw.

These findings indicate that the training had a more lasting impact across the specialist and frontline officers. More importantly, there was no decay in the areas where training had the most impact, the ‘s/he lied’ subscale. However, in their review of training outcomes from a range of studies, Parratt and Pina (2017) found that when training effects did occur, they did not usually last long. If this experiment were to be repeated, a worthwhile endeavour would be to conduct a 3–6-month follow-up survey, to test the lasting impact of the training further.

Conclusions

Rape is a sensitive and controversial topic (Parratt and Pina 2017), so any kind of self-report attitude survey has a risk that respondents will answer in a ‘politically correct’ way (Campbell 1995). Furthermore, there is a risk that participating officers may feel constrained to respond in a socially desirable way. For this reason, participants were given the opportunity to disengage at any stage of the experiment, and this happened with one participant at inception of the study.

The response of police has been found to directly affect victims’ willingness to engage in the criminal justice process (Jordan 2004). Although this study shows the effects of the training on rape myth attitudes is not uniform, the subscales that showed the greatest change (‘not rape’ and ‘s/he lied’) are arguably the most important. It is these two subscales that most directly impact the victim experience.

The rape myths associated with the ‘*lied*’ subscale reflect attitudes that lend themselves to victim blaming (Grubb and Turner 2012; O’Keefe et al. 2009) and establish disbelief as the default position (O’Keefe et al. 2009).

These attitudes can be proactively addressed by dealing with rape myth acceptance in police officers who have the most contact with victims of rape (Sleath and Bull 2012). At the initial stage, these are the frontline officers the group for whom the training appeared to have the greatest impact in this experiment. This result may indicate a greater willingness and openness to change or a gap not already addressed by the training (or lack of it) previously received.

Interestingly, the findings of no difference in the training effect in both the student and specialist officer cohorts are reflected in the findings of Sleath and Bull (2012). In their study of British officers, Sleath and Bull (2012) found that there was no difference between officers who had specialist training and those who did not in terms of results relating to victim blaming. However, they did find differences in perpetrator blaming, a result that was evident in this study.

It is important to note that there was a change in attitude from T1 to T3 for the control groups as well as the treatment groups. This finding is interesting and somewhat unexpected, but it may be attributed to several factors. The study was conducted against a wider social backdrop that cannot be ignored: this included a high profile, 9-week rape trial involving prominent sporting figures and the consequent launch of a review of sexual crime through the criminal justice process in Northern Ireland. At the time of the RCT, the #metoo movement was also high on the social agenda. The collapse of several high-profile rape cases in England, public protest resulting from the 9-week trial as well as extensive media, social media and public commentary may also have played a part in influencing attitudes. There may also have been a diffusion effect to the officers in the control groups from their colleagues who received the training.

Finally, if attitudes of police officers can be positively changed through training as shown in this study, for both male and female victims, then the resulting positive experience for victims could potentially be substantial.

Limitations

Sample Size

Whilst having more cases might theoretically increase statistical power, the increased heterogeneity in a more diverse pool of participants may militate against size as a simple remedy (Weisburd et al. 1993). Despite the small sample sizes in this study, there were high rates of response and the RBD enhanced statistical power.

“Learned Response”

The administration of surveys was consistent at T1 and T2, and the environment and processes were well controlled. However, given that the same survey was administered six times (3 female and 3 male victim surveys) for the treatment groups and four for the control groups (for whom no T2 was administered), there was a risk that a ‘learned response’ may apply and affect the outcomes. Despite short breaks administered between each gender survey, the female survey was always administered first. Whilst

this did maintain consistency, it may have been beneficial to alter the sequence of delivery and or the sequence of questions or presentation of the survey. With the benefit of hindsight, it would have been beneficial to have a T2 response from the control groups to provide more value and completeness for the analysis.

The Training Programme

Designed specifically for this study, much time and effort were spent on the planning of the 4-h programme, with emphasis on the concepts, principles and techniques, as advocated by Kirkpatrick and Kirkpatrick et al. (2006). However, it was not subjected to a formal pilot period or external evaluation. Despite its positive effect, this is assessed as a limitation. However, this study itself may now act as an evaluative tool for the training going forward, particularly given that little is known about the impact of police training in general and the resultant impact on attitudes and behaviour of officers (Sleath and Bull 2012).

The Nature of Sexual Crime

Rape is a sensitive and controversial topic (Parratt and Pina 2017). The style of a self-report survey may not always be conducive to establishing the nuances of sexual crime, and there is risk that respondents will answer in a ‘politically correct’ way (Campbell 1995). A further issue, as highlighted by Page (2008), was the potential propensity of officers to respond in a socially desirable way. This is the reason a social desirability scale (Crowne and Marlowe 1960) was used (not reported in this article).

Implications for Research and Policy

This study revealed that specialist officers who deal directly with the overall investigation and engage most with victims did not benefit significantly from the training. The argument could be made that they had less to learn given their levels of victim exposure and training for their role. Their lack of significant improvement in attitudinal response may also be due to their having higher levels of desensitisation and less willingness to change. Notably, they are the group of officers most likely to investigate false reports of rape, and this may contribute to holding higher levels of disbelief of rape victims (O’Keefe et al. 2009). Conversely, it could be argued that as detectives, they are trained to be more probing and questioning of circumstances and to go where the evidence takes them.

This research has also shown that the ‘pracademic’ approach is valuable and provides a robust and defensible contribution to the neglected arena of sexual crime research (Jordan 2004), particularly in Northern Ireland, and more research in this area should be encouraged.

Sherman (2013) has warned that failure to recognise public views and seriousness of harm has the potential to destabilise police legitimacy. In this case, harm may be caused by the police response and their attitude towards victims of rape, not only from a criminal justice perspective but from a therapeutic one. Reviewing and assessing available research to guide practice will support the institutionalisation of evidence-based policing (Lum et al. 2011).

We can therefore conclude that in the absence of any better plan for increasing the proportion of rapes that are accepted for prosecution, this programme may at least help

officers more readily to reject rape myths in their initial contact with victims. Given the lack of programme effects with trainee officers and specialist rape officers, we can also show evidence about the most effective timing and targets of this short course of training: uniformed response officers with at least 1 year of service in frontline operations.

Acknowledgements The first author would like to acknowledge the Police Service of Northern Ireland and the Institute of Criminology, University of Cambridge, for their support of the research on which this article is based. The research was led by the first author as a thesis submitted to the University of Cambridge in partial completion of the Master of Studies in Applied Criminology and Police Management at the Police Executive Programme, Institute of Criminology.

Appendix

Likert scale rating: 1 = strongly agree; 2 = agree; 3 = neutral; 4 = disagree; 5 = strongly disagree.

Construct of the subscales consisted of the following questions (adapted in their wording for the male survey) Subscale 1: She asked for it (highest score achievable was 30)

1. If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.
2. When girls go to parties, wearing slutty clothes, they are asking for trouble.
3. If a girl goes to a room with a guy at a party, it is her own fault she is raped.
4. If a girl acts like a slut, eventually she is going to get into trouble.
5. When girls are raped, it's often because the way they said 'no' was unclear.
6. If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.

Subscale 2: He did not mean to (highest score achievable was 30)

7. When guys rape, it is usually because of their strong desire for sex.
8. Guys do not usually intend to force sex on a girl, but sometimes they get too sexually carried away.
9. Rape happens when a guy's sex drive gets out of control.
10. If a guy is drunk, he might rape someone unintentionally.
11. It should not be considered rape if a guy is drunk and did not realise what he was doing.
12. If both people are drunk, it cannot be rape.

Subscale 3: Not rape (highest score achievable was 25)

13. If a girl does not physically resist sex—even if protesting verbally—it cannot be considered rape.
14. If a girl does not fight back, you cannot really say it was rape.

15. A rape probably does not happen if the girl has no marks or bruises.
16. If the accused ‘rapist’ does not use a weapon, you really cannot call it a rape.
17. If a girl does not say “no” she cannot claim rape.

Subscale 4: She lied (highest score achievable was 25)

18. A lot of times, girls who say they were raped agreed to have sex and then regret it.
19. Rape accusations are often used as a way of getting back at guys.
20. A lot of times, girls who say they were raped often led the guy on and then had regrets
21. A lot of times, girls who claim they were raped just have emotional problems.
22. Girls who are caught cheating on their boyfriends sometimes claim that it was a rape.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Anderson, L. A. and Whiston, S. C. (2005). Sexual assault education programs: a meta – analytic examination of their effectiveness. *Psychology of Women Quarterly*, Volume 29, p374–388.
- Ariel, B., & Farrington, D. P. (2010). Randomised block designs. In A. R. Piquero & D. Weisburd (Eds.), *Handbook of quantitative criminology* (pp. 437–454). New York: Springer.
- Bachman, R., & Schutt, R. K. (2017). *The practice of research in criminology and criminal justice* (6th ed.). London: Sage.
- Blume, B. D., Ford, J. K., Baldwin, T. T. & Huang, J. L. (2010). Transfer of training - a meta-analytic review. *Journal of Management* 36(4), 1065–1105.
- Brown, J., & King, J. (1998). Gender differences in police officers’ attitudes towards rape; results of an exploratory study. *Psychology, Crime & Law*, 4(4), 265–279.
- Burt, R. (1980). Cultural myths and supports for rape. *Journal of Personality and Social Psychology*. *American Psychological Association*, 38(2), 217–230.
- Campbell, R. (1995). The role of work experience and individual beliefs in police officers’ perceptions of date rape: an integration of quantitative and qualitative methods. *American Journal of Community Psychology*, 23(2), 249–277.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349–354.
- Figley, C. R. (1995). Compassion fatigue as secondary traumatic stress disorder: an overview. In C. R. Figley (Ed.), *Compassion fatigue: coping with secondary traumatic stress disorder in those who treat the traumatized* (pp. 1–20). New York: Brunner/Mazel.
- Gamer, R. (2005) Police attitudes: The impact of experience after training. *Applied Psychology in Criminal Justice*, Volume 1 Issue 1.
- Grubb, A., & Turner, E. (2012). Attribution of blame in rape cases: a review of the impact of rape myth acceptance, gender role conformity and substance use on victim blaming. *Aggression and Violent Behavior*, 17(5), 443–452.
- Jordan, J. (2004). *The word of a woman? Police, rape and belief*. New York: Palgrave Macmillan.

- Kirkpatrick, D. L., Kirkpatrick, J., & D. (2006). *Evaluating training programs: the four levels*. San Francisco: Berrett-Koehler.
- Lonsway, K. A., & Fitzgerald, L. F. (1994). Rape myths in review. *Psychology of Women Quarterly*, 18(2), 133–164.
- Lovett, J and Horvarth, M. A. H. (2009) *Alcohol and drugs in rape and sexual assault*. In **Horvarth and Brown**.
- Lum, C., et al. (2011). The evidence-based policing matrix. *Journal of Experimental Criminology*, 7(1), 3–26.
- Maier, S. L. (2014). *Rape, victims and investigations*. Experiences and perceptions of law enforcement officers responding to reported rapes: Routledge.
- McMahon, S., & Farmer, G. L. (2011). An updated measure for assessing subtle rape myths. *Social Work Research*, 32(5), 71–81.
- Ministry of Justice (2013). Official statistics: an overview of sexual offending in England and Wales. Statistical bulletin Office for National Statistics.
- O’Keefe, S., Brown, J. M., & Lyons, E. (2009). Seeking proof or truth: naturalistic decision-making by police officers when consideration rape allegations. In M. Horvarth & J. Brown (Eds.), (2009) *Rape: challenging contemporary thinking*. Devon: Willen.
- Page, A. D. (2007). Behind the blue line: Investigating police officers’ attitudes toward rape. *Journal of Police and Community Psychology*, Volume, 22, 22–32.
- Page, A. D. (2008). Judging women and defining crime: Police officers’ attitudes toward women and rape. *Sociological Spectrum*, 28(4), 389–411.
- Parratt, K. A., and Pina, A. (2017) From real rape to real justice: a systematic review of police officers rape myth beliefs. *Aggression and Violent Behavior*. May/June 2017. Volume 34, p68–83.
- Russell, K J. and Hand, C.J. (2017) Rape myth acceptance, victim blame attribution and just world beliefs: A rapid evidence assessment. *Aggression and Violent Behavior* 37 pp153–16.
- Sherman, L. W. (2013). The rise of evidence-based policing: targeting, testing and tracking. In M. Tonry (Ed.), *Crime and Justice in America, 1975–2025, crime and justice: a review of research* (Vol. 42, pp. 377–452). Chicago: University of Chicago Press.
- Sleath, E., & Bull, R. (2012). Comparing rape victim and perpetrator blaming in a police officer sample: Differences between police officers with and without special training. *Criminal Justice and Behavior*, 39(5), 646–665.
- Stamm, B. H. (2005). *The ProQOL Manual. The Professional Quality of Life Scale: compassion satisfaction, Burnout & compassion fatigue/secondary trauma scales*. Idaho: Sidran Press. Retrieved 1st November 2018 from: <http://www.compassionfatigue.org/pages/ProQOLManualOct05.pdf>.
- Suarez, E., & Gadalla, T. M. (2010). Stop blaming the victim: a meta-analysis on rape myths. *Journal of Interpersonal Violence*, 25(11), 2010–2035.
- Temkin, J., & Krahe, B. (2008). *Sexual assault and the justice gap: a question of attitude*. North America: Hart.
- Weisburd, D., Petrosino, A., & Mason, G. (1993). Design sensitivity in criminal justice experiments. *Crime and Justice: A Review of Research*, 17, 337–380.

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Zoe McKee is a Detective Chief Inspector in the Police Service of Northern Ireland.

Katrin Mueller-Johnson is an Associate Professor of Criminology at the Centre for Criminology, University of Oxford.

Heather Strang is Director of the Lee Centre of Experimental Criminology, Institute of Criminology, University of Cambridge.

Affiliations

Zoe McKee¹ · **Katrin Mueller-Johnson**² · **Heather Strang**³

Zoe McKee
zoe.mckee@psni.pnn.police.uk

¹ Police Service of Northern Ireland, Belfast, UK

² Centre for Criminology, University of Oxford, Oxford, UK

³ Institute of Criminology, University of Cambridge, Cambridge, UK