

## Five Minute Interventions (FMI): Short-term effects of training on staff attitudes towards prisoners, motivation and ability to support rehabilitation, and job stress and satisfaction

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### Aims

To develop an understanding of the impact of Five Minute Interventions (FMI) training on custodial staff attitudes towards prisoners, their motivation and ability to support offenders' rehabilitation, their subjective perceptions of organisational and operational job demands, job stress and job satisfaction.

### Methods

A repeat measures quasi-experimental design was used. Data were taken from self-report matched surveys of staff who received FMI training ( $n = 442$ ) conducted before training and six weeks after training. Rounds of surveys were also administered to a comparison sample of staff who were yet to receive training ( $n = 26$ ).

### Results

Staff who received FMI training reported more positive attitudes towards prisoners, and greater motivation and ability to support offenders' rehabilitation 6-weeks after training, compared to before training. The study specifically identified that FMI training has a causal impact on staff perceptions of their ability to support offenders' rehabilitation, when compared to staff who had not received training. There was no significant impact of training on subjective staff perceptions of job demands, job stress or job satisfaction.

### Conclusion

The results indicate that FMI training is able to provide staff with the tools they need to support inmates in their rehabilitative efforts. It is also a promising step towards helping staff build more positive relationships with inmates. As staff continue to use FMI skills and build supportive relationships with inmates, there is potential for longer term positive outcomes for both staff and inmates that will help promote a more rehabilitative prison environment.

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## INTRODUCTION

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New South Wales (NSW) accounts for the largest inmate population in Australia, with 31% of Australia's prisoners in NSW correctional centres (Australian Bureau of Statistics; ABS, 2020). Re-conviction rates within 12 months of being released from custody have been on the rise over the last decade. In 2008, 34.7% of adult offenders went on to reoffend within 12 months of being released from custody; in 2019, 42.4% were reconvicted 12 months post-release (NSW Bureau of Crime Statistics and Research; BOCSAR, 2021).

Traditional methods of reducing reoffending involve a range of rehabilitative interventions that are based on the Risk-Needs-Responsivity (RNR) model and target specific dynamic risk factors (Bonta & Andrews, 2016). While programs based on the RNR model can assist in reducing reoffending, successful rehabilitative outcomes may be impacted by competing goals of providing care and control within custodial settings (Craig, 2004). Rehabilitation has typically been viewed as the responsibility of specialist teams, but Mann et al. (2018, p.3) argues that "everyone in prisons has a role in rehabilitation and the whole regime has the potential to support or undermine this outcome". Effective offender rehabilitation is based on a set of complex interactions between the individual, social and community factors, criminal justice system processes, and custodial and post-release environments (e.g., Farrall et al., 2010; LeBel et al., 2008). Within a custodial environment, effective rehabilitation is more likely when the environment is conducive to supporting rehabilitation, which means creating "a culture with a purpose; that is, to support people in turning away from crime and toward a different life" (Mann, 2019, p.3).

The Five Minute Intervention (FMI) project was developed in the U.K. as a way to contribute to building a positive rehabilitative prison environment. Under this initiative, prison officers

are trained to recognise everyday conversations with prisoners as opportunities to promote change and encourage pro-social behaviour (Kenny & Webster, 2015; Vickers-Pinchbeck, 2019). CSNSW has recently introduced FMI training for all correctional centre staff across the state. The current study aims to establish whether FMI training contributes to improving staff perceptions on a range of outcome measures that will assist in establishing a positive rehabilitative environment.

### Rehabilitative environments and staff-prisoner relationships

The penological literature indicates that a rehabilitative prison environment is built on safety, decency, and procedural fairness (Mann et al., 2018). It should promote mutual courteous interactions, allow people to recognise opportunities to assist and support each other, and encourage staff to model and promote non-criminal values and identity (Mann et al., 2018). Such environments promote readiness for treatment, beliefs that offenders can change, positive attitudes towards offenders, and help people desist from crime (Blagden et al., 2016).

Staff are the heart of prison work and play a crucial role in creating a rehabilitative environment (Liebling et al., 2011). Custodial officers in particular, "have the opportunity to play a fundamental role as change agents given that they are the staff who engage with prisoners the most, and who are tasked with caring for and controlling prisoners on a daily basis" (Ricciardelli & Perry, 2016, p.404). The best officers are good listeners, they have a controlled sense of humour, they are someone inmates can talk to, and they are mature, motivated, intelligent, careful, compassionate, and capable of using authority (Liebling et al., 2011). They also have and give hope, encourage inmates to participate in rehabilitative activities, use rewards and recognition over punishment, and guide inmates to consider the consequences of their actions, consider others' perspectives and make

good decisions (Mann et al., 2018). Ricciardelli and Perry (2016) identified the importance of staff demonstrating a 'relational but secure' communication style through building rapport, trust and respect with prisoners. Research has suggested that staff who adhered to this communication style were seen as honest, consistent, patient, a good listener and someone who treated prisoners as equals (Ricciardelli & Perry, 2016).

Staff who hold positive attitudes and beliefs about change, who act as role models and who treat prisoners with respect and fairness have the greatest chance of fostering hope and motivation among prisoners and promoting effective rehabilitation (Blagden et al., 2016; Burnett & McNeill, 2005). Ricciardelli and Perry (2016) suggest targeting training opportunities that aim to build positive staff-prisoner relationships through promoting trust, respect and safety. They argue that such relationships may assist staff "in identifying (and in some cases responding to) criminogenic needs through program implementation, case management, and upholding dynamic security" (Ricciardelli & Perry, 2016, p.402). The Five Minute Intervention (FMI) initiative presents an opportunity for promoting rehabilitative custodial environments through providing training to staff that focuses on building positive relationships with prisoners.

### Five Minute Interventions (FMI)

FMI is aimed at building a rehabilitative environment through turning everyday conversations between custodial staff and inmates into meaningful interactions that inspire hope and motivate change (Tate et al., 2017). Unlike traditional rehabilitation interventions, FMI is not a 'stand-alone' approach with a discrete beginning and end; it is a relational approach that encourages staff to apply a set of skills and techniques in their multiple interactions with inmates to promote a rehabilitative culture (Vickers-Pinchbeck, 2019). FMI encourages staff to challenge a number of 'targets'

that affect inmate behaviour and present barriers to effective rehabilitation, including criminal attitudes, impulsivity and ineffective problem solving (Kenny & Webster, 2015; Tate et al., 2017). FMI is designed to train custodial staff in using a range of rehabilitative skills to help address these targets through building trust, confidence and rapport, giving hope, Socratic questioning, active listening and positive reinforcement (Mann et al., 2018; Tate et al., 2017). FMI equips staff with the tools to help improve staff-prisoner relationships, as well as encourage prisoners to make positive changes through providing them with the skills and hope to do so. It is expected that staff who are better able to make sense of the complex causes and functions of criminogenic behaviour are in turn able to better cope with the emotional and psychological impact of managing those engaged in such behaviour (Vickers-Pinchbeck, 2019).

A small number of studies have sought to evaluate initial implementation of FMI in the U.K. In the first, interviews were conducted with 16 custodial officers, half of whom had received FMI training (Kenny & Webster, 2015). Interviews took place pre-FMI training, and again 6 weeks and 3 months post-training. A promising finding from the evaluation indicated that officers who held a pre-training orientation considered 'pre-rehabilitative' (i.e., believed rehabilitative work was valuable but required further development of skills to encourage rehabilitation) or 'frustrated' (i.e., supported rehabilitative actions but fixated on barriers to using those actions, such as lack of time) shifted to a 'rehabilitative' orientation post-training (i.e., regularly engaged in conversations with prisoners that conveyed positivity). The shift in orientation from pre- to post-training suggests FMI was able to provide officers with the necessary skills to have rehabilitative conversations with prisoners. Over time, officers reported they were better able to find and develop opportunities to use FMI, they became better at recognising criminogenic needs, and they felt they improved on delivering and effectively

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managing challenging conversations with prisoners. Officers further reported better rapport and improved relationships with prisoners, increased job satisfaction, and improvements in prisoners' thinking skills, self-efficacy and problem-solving abilities.

The second evaluation of staff perspectives involved a further nine interviews with FMI-trained officers (Vickers-Pinchbeck, 2019). The officers were supportive of prisoners developing skills to resolve their own problems, generally felt all individuals were capable of change and recognised their role in promoting change. However, officers also expressed a sense of pessimism about whether the prison environment is conducive to rehabilitation, referring to barriers such as inexperienced staff, a lack of staffing and resources, and staff holding negative attitudes towards rehabilitation and prisoners.

In the only evaluation, to date, of prisoner perceptions of FMI, interviews were conducted with 10 male prisoners who had experienced an FMI interaction with prison officers (Tate et al., 2017). Prisoners saw FMI officers as non-judgemental, willing to help and willing to listen. They also reported a mutual reciprocity between themselves and officers, and felt they were treated with respect and as a human being. Overall, prisoners reported an increased sense of self-efficacy, autonomy and self-confidence, as well as improved decision-making and consequential thinking. They further felt officers trained in FMI were able to diffuse negatively charged situations, and generally helped facilitate change and promote personal growth.

Taken together, the findings from these early evaluations suggest that FMI training provides staff with valuable skills and insights to build a rehabilitative prison environment. The training also helps staff engage with inmates to develop their skills, as well as contributing to positive personal outcomes for staff, such as increased job satisfaction. However, further evaluation of FMI,

particularly within the NSW correctional context, is still needed to better understand both short- and long-term effects.

## The current study

FMI training in NSW correctional centres commenced in May 2020, with the initial roll-out including training of all staff at 13 of the state's 34 adult correctional centres. The training is delivered by experienced NSW custodial staff who were trained to deliver FMI in collaboration with trainers from the U.K. Training materials (e.g., activities, scenarios, examples) were adapted to the NSW context by the NSW FMI trainers. The training takes place across two days with groups of approximately 15 staff from various roles across the centre, including custodial officers (COs), services and programs officers (SAPOs), case managers (CMOs) and trade overseers (CSIs).

While the findings of FMI evaluations in the U.K. have identified positive outcomes for both staff and prisoners, they have relied on qualitative methods and small, targeted samples (Kenny & Webster, 2015; Tate et al., 2017; Vickers-Pinchbeck, 2019). The current study aims to provide further understanding of the mechanisms and outcomes of the training by drawing on a large sample of NSW custodial staff and robust quasi-experimental research methods to assess the impacts of FMI training. Based on existing literature and evaluations of FMI, six key outcomes of interest were examined in the current study: attitudes towards prisoners, motivation and ability to support offenders' rehabilitation, and perceptions of specific correctional officer job demands, job stress, and job satisfaction.

The U.K. FMI evaluations specifically identified FMI-trained staff as generally having more positive attitudes towards prisoners, increased motivation and confidence in their skills to support prisoners' rehabilitation, and greater job satisfaction (Kenny & Webster, 2015). It was also identified that negative

attitudes about prisoners were likely to present a barrier to creating a positive rehabilitative environment, as were specific job demands related to a lack of staffing and resources (Vickers–Pinchbeck, 2019). Hence, these particular outcomes were of interest in the current study.

An additional measure of job stress was also included given the prevalence of research linking positive staff attitudes towards prisoners with reduced stress and increased satisfaction, and perceptions of specific job demands (e.g., perceived dangerousness or role conflict) with more stress and less satisfaction (e.g., Armstrong & Griffin, 2004; Bezerra et al., 2016; Finney et al., 2013; Misis et al., 2013). Research has further identified that positive training experiences and having the skills needed to perform a job well helps to reduce anxiety and frustration, and increase job satisfaction (e.g., Cheng & Ho, 2001; Truitt, 2011; Tsai et al., 2007). FMI training is therefore expected to positively influence a range of job-related outcomes for staff.

Primary analyses of the selected measures in the current study included custodial staff across various roles. However, we recognise that custodial staff have heterogeneous roles and skillsets, which could influence effects of FMI training and analysis of results. For example, while all staff are expected to have experience using particular FMI skills (e.g., building trust, confidence and rapport), many staff who work in more one-on-one service roles with inmates (such as SAPOs, CMOs and CSIs) are likely to have additional advanced skills that are relevant to FMI (e.g., giving hope and providing positive reinforcement). In this regard it is understandable that FMI may often be oriented towards achieving impacts on the attitudes and perceptions of custodial officers, who comprise the majority of our sample. The current study, therefore, aims to isolate and assess dynamics of change specifically for custodial officers, in addition to the total sample

of custodial staff. In examining the primary aims of the study, two research questions were addressed:

1. Do staff who are trained in FMI experience better outcomes (i.e., more positive attitudes towards prisoners, increased motivation and ability to support offenders' rehabilitation, a reduction in perceived job demands and stress, and increased job satisfaction) post-training compared to pre-training?
2. Do staff who are trained in FMI experience better outcomes (i.e., more positive attitudes towards prisoners, increased staff motivation and ability to support offenders' rehabilitation, a reduction in perceived job demands and stress, and increased job satisfaction) over time when compared to staff who are not trained in FMI?

## METHODS

### Design

The current study employed a repeat measures quasi-experimental design. Self-report surveys consisting of a series of established psychometric measures were administered to staff at centres where FMI training was being conducted (training sites) and at centres yet to receive the training (comparison sites). Staff completed surveys twice over a 6-week period (baseline and follow-up).

### Procedure

Staff at treatment sites completed the first survey prior to beginning FMI training. They were provided a paper copy of the survey on the morning of the first day of training. Staff at comparison sites were invited to complete the first survey by FMI trainers that attended those sites to provide an introduction to the training initiative. Ongoing support to encourage staff at comparison sites to complete the survey was provided by senior custodial staff who

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worked at those sites. Staff from the treatment and comparison sites who consented to completing the first survey were asked to provide an email address and consent for future contact. The second survey was administered to all consenting staff via an online survey platform (Alchemer) 6 weeks following completion of the first survey.

## Participants

From the initial 13 correctional centres where FMI training was delivered, 1360 staff completed the first survey and consented to future contact, and 446 completed the follow-up survey (33% response rate). From the five comparison sites, 89 staff completed the first survey and consented to future contact; of those, 26 completed the follow-up survey (29% response rate)<sup>1</sup>. After removing four cases due to duplicate completions in both comparison and treatment sites, the final sample consisted of 442 matched surveys from training sites and 26 matched surveys from comparison sites. Of the total staff sample, 275 custodial officers trained in FMI and 23 officers from comparison sites completed both surveys. Table 1 presents demographic characteristics of all staff and the custodial officer sample.

## Measures

FMI training is expected to have a positive impact on a range of staff outcomes, including their attitudes to prisoners; their motivation and ability to support offenders' rehabilitation; and their perceptions of job demands, job stress and job

satisfaction. These largely involve established psychometric measures which have previously been subjected to validation studies and have robust validity and reliability.

**Attitudes Towards Prisoners.** The Attitudes Towards Prisoners (ATP) measure was developed by Melvin et al. (1985). The original measure included 36 items that assessed an individual's general attitude toward prisoners (e.g., "Most prisoners can be rehabilitated"). Reliability scores for the ATP have been found to range from .82 to .93 (Kjelsberg et al., 2007; Melvin et al., 1985).

The current study used an adapted 11-item version of the scale, utilising the items with the highest factor loadings, as reported by Kjelsberg et al. (2007). The 11-item scale has been subject to validation and found to have a robust single factor representing overall attitudes towards prisoners (see Barkworth et al., in preparation), with a similar reliability score to the original scale (Cronbach's alpha = .85). Items are measured on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree), with a higher score indicating more positive attitudes towards prisoners. All items were rescaled to baseline to create a total score ranging from 0 - 44.

**Motivation and Ability to Support Offenders' Rehabilitation.** Of interest in the current study was whether FMI training had an impact on the motivation and ability of staff to support offenders' rehabilitation. As there was no existing measure suitable to assess FMI on such outcomes, 11 items were developed by researchers involved in the study. Items were specifically designed to measure whether staff were motivated to support offenders' rehabilitation (e.g., "I am motivated to help offenders change their criminal thinking or attitudes") and whether they felt they had the ability to support offenders' motivation (e.g., "I have the skills I need to help offenders achieve positive and prosocial goals"). The items were subjected to an

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<sup>1</sup> A likely contributing factor to the lower participation rate at comparison sites was the different recruitment procedure for the first survey (i.e., staff from treatment sites were given time to complete the survey when commencing FMI training, while staff at comparison sites completed the survey if they had time to do so during their shift). The follow-up participation rate may also have been lower due to staff at comparison sites not having received the FMI training, and potentially assuming there was no reason for them to complete the same survey that had been provided 6 weeks earlier.

**Table 1.** Staff characteristics for the total staff and custodial officer samples, by training and comparison sites

	Total staff sample				Custodial officer sample			
	FMI-trained group (n=442)		Comparison group (n=26)		FMI-trained group (n=275)		Comparison group (n=23)	
	M(SD)	%	M(SD)	%	M(SD)	%	M(SD)	%
Age	46.1(11.4)	-	46.5(11.8)	-	45.3(9.7)	-	46.0(12.4)	-
Gender								
<i>Male</i>	-	58.4	-	46.2	-	63.6	-	52.2
<i>Female</i>	-	41.6	-	53.8	-	36.4	-	47.8
Length of Service	9.1(8.8)		9.9(7.5)		9.7(9.4)		10.5(7.8)	
Role								
<i>Custodial</i>	-	64.0	-	88.5	-	-	-	-
<i>SAPO</i>	-	9.8	-	0.0	-	-	-	-
<i>CMO</i>	-	9.3	-	7.7	-	-	-	-
<i>CSI</i>	-	12.3	-	3.8	-	-	-	-
<i>Other</i>	-	4.0	-	0.7	-	-	-	-

Exploratory Factor Analysis (EFA) using principal axis factoring with an oblimin rotation to investigate the dimensionality of the scale (see Appendix 1). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was high (.904) and the Bartlett's test of sphericity reached statistical significance indicating that factor analysis could be interpreted. Two factors were identified based on the scree plot and eigenvalues greater than 1, explaining 69.8% of the variance. Seven items loaded onto the first factor measuring 'motivation to support offenders' rehabilitation' (Cronbach's alpha = .92) and four items loaded onto the second factor measuring 'ability to support offenders' rehabilitation' (Cronbach's alpha = .94). All items were scored on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). A higher score on the 'motivation' scale indicated staff were more motivated to support offenders' rehabilitation and a higher score on the 'ability' scale indicated staff felt more equipped with the skills needed to support offenders' rehabilitation. All items were rescaled to create a total ranging from 0 - 28 for 'motivation' and 0 - 16 for 'ability'.

**Correctional Officer Job Demands.** The Correctional Officer Job Demands (COJD) measure was developed by Brough and Williams (2007) based on interviews with Australian correctional officers about their current job demands. The COJD asks staff to indicate how much each of the demands causes them stress, and is broken down into two broad factors: organisational job demands (6 items; e.g., "Understaffing and resource inadequacy") and operational job demands (4 items; e.g., "Possibility of violence from offenders"). Brough and Williams (2007) reported Cronbach alpha coefficients of .85 and .81 for the two factors, respectively. Items were scored on a 5-point Likert scale (1 = not at all; 5 = a great deal) and rescaled to produce a score ranging from 0 - 24 on the organisational scale (Cronbach's alpha = .88) and 0 - 16 on the operational scale (Cronbach's alpha = .74); higher scores indicate experience of more correctional demand-related stress.

**Job Stress.** The current study employed a 6-item 'job stress' scale derived from Cullen et al.'s (1985) work with custodial officers and is commonly used in the literature, with reliability ranging from .82 to

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.93 (e.g., Lambert et al., 2018; Lambert et al., 2019; Otu et al., 2018; Tewksbury & Higgins, 2006). Items measure the extent that staff agree or disagree with a series of statements (e.g., “When I’m at work, I often feel tense or uptight”) on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Items were rescaled to produce a total score from 0 – 24 and recoded so a higher score indicates more job stress (Cronbach’s alpha = .78).

**Job Satisfaction.** The Job Satisfaction scale was adapted from Warr et al.’s (1979) measure that asks staff to indicate their level of satisfaction with a range of components related to their current job (e.g., “Your physical work conditions”). A 10-item short form was validated in a clinical medical context by Hills et al. (2011), with a reported reliability coefficient of .86. Hills et al. (2011) also adapted the scale from a 7-point Likert scale to a 5-point scale (1 = extremely dissatisfied; 5 = extremely satisfied). The current study adopted this short form version, although the overall job satisfaction open-ended response item was excluded, creating a 9-item scale (Cronbach’s alpha = .85). Items were rescaled to create a total score from 0 – 36; a higher score indicates greater job satisfaction.

## Analytical Plan

A two staged analytical approach was undertaken in this study. In the first stage we examined the average differences in scores on each of the measures before and after training among FMI-trained staff. This was followed by an examination of the average differences in scores on each of the measures between the FMI-trained and comparison samples over time. Analyses were replicated for both the total staff sample and the custodial officer sample.

### Change among FMI-trained staff

Paired sample t-tests were conducted to assess whether FMI-trained staff self-reports regarding

their attitudes to prisoners, their motivation and ability to support offender rehabilitation, and perceptions of job demands, job stress and job satisfaction changed before and after training. This determination was based on both the identification of statistically significant differences in average scores on each of these measures and the magnitude of those differences, between pre-training and post-training points of measurement.

The magnitude of the average difference in scores on each of the measures among FMI-trained staff between the baseline and follow-up surveys was explained using Cohen’s *d* effect size calculations. Interpretations of effect sizes were guided by Cohen (1988) so that effect sizes of .2 were considered small, between .2 and .5 were moderate and between .5 and .8 were large.

### Comparing change between FMI-trained and comparison staff

We employed a series of 2 (group) by 2 (time) mixed model ANOVAs to address the second research question, by comparing the magnitude of change in outcome measure scores between the first and second surveys (time) for the FMI-trained and comparison staff groups (group). Applying difference in differences research design principles, the causal effect of FMI training on scores can be inferred from the interaction term, or differences in the magnitude of change over time between the FMI-trained group and the comparison group.

Partial eta squared represents the magnitude of change in average scores. Interpretation of the magnitude of change for the partial eta squared statistics was guided by Cohen (1973) whereby effect sizes of .01 were small, between .01 and .06 were moderate and between .06 and .14 were large.

### Bayesian analyses

The large sample size differences between FMI-trained ( $n = 442$ ) and comparison ( $n = 26$ ) staff increases the likelihood of Type II errors in the



reporting of results and may impact model assumptions of standard analyses (Button, et al., 2013; Smith, et al., 2002). Therefore, we also employed Bayesian repeated measures ANOVAs to assess the effect of FMI training on the outcome measures between these groups over time.

Bayesian approaches are increasingly used to supplement or supplant conventional frequentist analyses such as ANOVAs and are considered to have a number of advantages (Dienes & McLatchie, 2018; Nathoo & Mason, 2016; van den Bergh et al., 2020). Significantly, Bayesian analyses are not impacted by sample size in the same way as frequentist statistical analysis approaches. As such, statistical inferences can be drawn using small samples in a similar manner to large sample inferences, thus improving the power of the results.

Furthermore, statistical inferences are based on a graded measure of evidence (Bayes factors) rather than the frequentist approach of accepting or rejecting the null hypothesis. This serves to improve the accuracy of statistically significant findings and provide a hierarchy of evidence to interpret their strength (Rouder et al., 2017; Song et al., 2017; Wagenmakers et al., 2018). Some researchers have found that complementing p-values with Bayes

factors provides richer information for hypothesis testing and serve to clarify results that are difficult to interpret (e.g., Kelter, 2020; Malone & Coyne, 2020). The resulting Bayes factors from this approach were interpreted using guidelines outlined by Jeffreys (1961) to interpret and discuss resulting levels of evidence in support of both the null and alternate hypotheses (see Appendix 2).

## RESULTS

### Do staff who are trained in FMI experience better outcomes post-training compared to pre-training?

#### Total staff sample

Table 2 presents descriptive statistics and average change between pre-training and post-training for each of the outcome measures on the total FMI-trained staff sample. A series of paired sample t-tests indicated that there was a moderate, statistically significant improvement among FMI-trained staff in their attitudes towards prisoners from baseline to follow-up. Moderate improvements were also observed in measures of staff motivation and ability to support offenders' rehabilitation from baseline to follow-up.

**Table 2.** Descriptive statistics and average change in scores for each of the FMI outcome measures among the total sample of trained staff at pre- and post-training

	<i>n</i>	Pre-training	Post-training	Paired differences	
		M(SD)	M(SD)	<i>t</i>	<i>d</i>
Attitudes towards prisoners	390	23.76 (7.0)	25.36 (6.9)	6.724***	.34
Motivation	392	21.76 (5.3)	22.82 (4.9)	4.985***	.25
Ability	399	10.45 (3.6)	11.69 (3.2)	7.802***	.39
Organisational job demands	378	8.15 (5.8)	8.08 (5.6)	-.348 ns	-.02
Operational job demands	381	4.52 (3.1)	4.36 (3.0)	-1.252 ns	-.06
Job stress	381	8.33 (4.7)	8.33 (4.9)	.014 ns	.00
Job satisfaction	375	25.15 (6.1)	25.06 (6.5)	-.375 ns	-.02

Note: \*\*\* $p < .001$ ; ns = not significant; *d* = Cohen's *d* effect size

On the other hand, FMI-trained staff did not show significant change, on average, in their perceptions of organisational and operational job demands, job stress, or job satisfaction from baseline to follow-up.

### Custodial officers

Table 3 presents descriptive statistics and average change between baseline and follow-up for each of the outcome measures among FMI-trained custodial officers. These results were consistent with the total sample of FMI-trained staff. That is, custodial

officer attitudes towards prisoners, as well as motivation and ability to support offenders' rehabilitation significantly improved from baseline to follow-up. The effect size of the improvement in attitudes towards prisoners, and both motivation and ability to support offenders' rehabilitation among FMI-trained custodial officers was within the moderate range.

Similar to the total sample, there was no significant change in average scores between baseline and follow-up on the organisational and operational job demands, job stress, or job satisfaction measures.

**Table 3.** Descriptive statistics and average change in scores for each of the FMI outcome measures among FMI-trained custodial officers and pre- and post-training

	<i>n</i>	Pre-training	Post-training	Paired differences	
		M(SD)	M(SD)	<i>t</i>	<i>d</i>
Attitudes towards prisoners	240	21.53 (6.4)	23.05 (6.3)	4.956***	.32
Motivation	244	20.06 (5.0)	21.32 (5.0)	4.459***	.28
Ability	246	9.52 (3.5)	10.86 (3.3)	6.377***	.41
Organisational job demands	237	8.35 (5.7)	8.33 (5.6)	-.080 ns	-.01
Operational job demands	237	4.86 (3.2)	4.77 (3.1)	-.590 ns	-.04
Job stress	235	8.31 (4.8)	8.49 (4.9)	.743 ns	.05
Job satisfaction	229	24.29 (5.9)	23.89 (6.4)	-1.279 ns	-.08

Note: \*\*\* $p < .001$ ; ns = not significant; *d* = Cohen's *d* effect size

### Do staff who are trained in FMI experience better outcomes over time when compared to staff who are not trained in FMI?

Table 4 presents average scores at baseline and follow-up for each outcome measure among FMI-trained and comparison group staff within the total staff and custodial officer samples. FMI-trained staff and comparison group staff in both the total staff and custodial officer samples reported higher average scores at follow-up on the attitudes towards prisoners measure. However, FMI-trained staff from both samples reported higher average scores at follow-up on the motivation and ability to

support offenders' rehabilitation measures, and lower average scores on the organisational and operational job demands measures, while comparison group staff reported lower and higher average scores, respectively.

Average scores on the job stress and job satisfaction measures remained generally consistent between the baseline and follow-up surveys for the FMI-trained total staff sample. However, FMI-trained custodial officers reported slightly higher job stress and lower satisfaction at follow-up. Comparison group staff in both samples also reported higher job stress and lower job satisfaction, on average, at follow-up.

**Table 4.** Mean and standard deviation on each of the outcome measures for all FMI-trained and comparison group staff in the total staff and custodial officer samples

	Total staff sample				Custodial officer sample			
	FMI-trained group		Comparison group		FMI-trained group		Comparison group	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Attitudes towards prisoners	23.76 (7.0)	25.36 (6.9)	21.54 (6.8)	21.88 (6.9)	21.53 (6.4)	23.05 (6.3)	20.22 (5.5)	20.78 (5.5)
Motivation	21.76 (5.3)	22.82 (4.9)	19.64 (5.8)	19.40 (7.3)	20.06 (5.0)	21.32 (5.0)	19.17 (5.8)	18.78 (7.3)
Ability	10.45 (3.6)	11.69 (3.2)	10.34 (4.2)	9.50 (4.6)	9.52 (3.5)	10.86 (3.3)	9.91 (4.2)	9.47 (4.2)
Organisational job demands	8.15 (5.8)	8.08 (5.6)	11.96 (6.5)	12.24 (5.1)	8.35 (5.7)	8.33 (5.6)	12.77 (5.8)	12.63 (4.5)
Operational job demands	4.52 (3.1)	4.36 (3.0)	5.92 (3.2)	6.52 (3.2)	4.86 (3.2)	4.77 (3.1)	6.40 (3.1)	6.59 (3.0)
Job stress	8.33 (4.7)	8.33 (4.9)	10.47 (4.8)	11.0 (5.8)	8.31 (4.8)	8.49 (4.9)	10.70 (4.9)	11.0 (5.4)
Job satisfaction	25.15 (6.1)	25.06 (6.5)	21.48 (6.6)	19.64 (6.8)	24.29 (5.9)	23.89 (6.4)	20.27 (5.4)	18.77 (6.1)

### Total staff sample

#### *Mixed ANOVA analyses*

Table 5 presents the results from the mixed ANOVA models on each of the outcome measures among all staff surveyed. Main effects are reported separately in terms of significant average differences between groups (trained and comparison) after adjusting for time of measurement, and time (baseline and follow-up) after adjusting for group, on each of the outcome measures.

The mixed ANOVAs identified significant moderate group effects on all outcome measures (with the exception of the ability measure) among the total sample of staff surveyed. After adjusting for time of measurement, FMI-trained staff reported lower organisational and operational job demands and job stress than those in the comparison group. They also had moderately higher average scores on the attitudes to prisoners, motivation and job satisfaction measures than the comparison group.

Small significant main effects of time were also identified on the attitudes towards prisoners and job satisfaction measures, after adjusting for group. All staff reported improved attitudes to prisoners and satisfaction with their job between the baseline and follow-up surveys (see Table 5).

The mixed ANOVAs identified a moderate significant interaction effect on staff ability to support offender rehabilitation. Staff who received FMI training reported significantly greater increases in their ability to support offenders' rehabilitation between the baseline and follow-up surveys, compared to staff who had not received the training (see Table 5).

A series of post-hoc pairwise comparisons was conducted to further explore the nature of the interaction effect on staff ability to support offender rehabilitation. This involved examining the differences in the ability measure scores over time for each group separately. The pairwise comparisons revealed that the average change in perceived ability over time among all FMI-trained

staff was significant. FMI-trained staff reported perceived ability to support prisoner rehabilitation that was 1.2 points higher at follow-up compared to baseline ( $p < .001$ ,  $CI_{95\%} = [.93, 1.56]$ ). In contrast, attitudes among the comparison group regarding their ability to support rehabilitation showed a non-significant decline over time (see Figure 1).

The mixed ANOVA analyses did not identify significant interactions between group and time on the attitudes towards prisoners, motivation, organisational or operational job demands, job stress, or job satisfaction measures.

### Bayesian analyses

Table 5 also shows the results of the Bayesian analyses for the total sample. In most cases, the group and time main effects identified through the ANOVAs were supported by the Bayesian analyses. The Bayes factors indicated that there was sufficient

evidence ( $>=3.0$ ) to support greater motivation and job satisfaction, fewer organisational demands and lower job stress that was reported by FMI-trained staff compared to comparison group staff, on average. There was also sufficient evidence to support improvement in attitudes towards prisoners over time among all staff.

However, some differences between the ANOVA and Bayesian main effects were also observed. The Bayes factors indicated only anecdotal support of significantly higher average scores in attitudes towards prisoners among FMI-trained staff compared to the comparison group. The Bayes factor for the main effect of time on satisfaction levels indicated no significant differences. In contrast, the analysis found sufficient evidence of a significant improvement on the motivation and ability to support offenders' rehabilitation measures among all staff over time (see Table 5).

**Table 5.** Mixed ANOVA and Bayesian interaction and main effects on each of the outcome measures for all FMI-trained and comparison group staff

	Mixed ANOVA results		Bayes Factor (BF <sub>10</sub> )	Group (FMI-trained vs. comparison)		Bayes Factor (BF <sub>10</sub> )	Time (pre-FMI vs. post-FMI)		Bayes Factor (BF <sub>10</sub> )
	<i>F</i>	$\eta^2_p$	<i>Time*</i> <i>Group</i>	<i>F</i>	$\eta^2_p$	<i>Group</i>	<i>F</i>	$\eta^2_p$	<i>Time</i>
Attitudes towards prisoners	1.795	.004	0.57	4.600*	.011	1.90	4.331*	.010	>100
Motivation	2.241	.005	0.67	8.026**	.019	<b>7.50</b>	.897	.002	>100
Ability	10.059*	.023	<b>24.58</b>	3.440	.008	1.14	.367	.001	>100
Organisational job demands	.183	.000	0.24	13.181***	.032	<b>68.00</b>	.064	.000	0.07
Operational job demands	2.100	.005	0.55	9.468**	.023	<b>14.50</b>	.703	.002	0.11
Job stress	.416	.001	0.24	6.268*	.015	<b>3.79</b>	.425	.001	0.08
Job satisfaction	3.464	.009	0.90	13.898***	.034	<b>90.95</b>	4.195*	.010	0.11

Note: \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ ;  $\eta^2_p$  = partial eta squared effect size. **Bold:** Substantial to Decisive evidence of favour towards a hypothesis. > 1 = Alternate, < 1 = Null

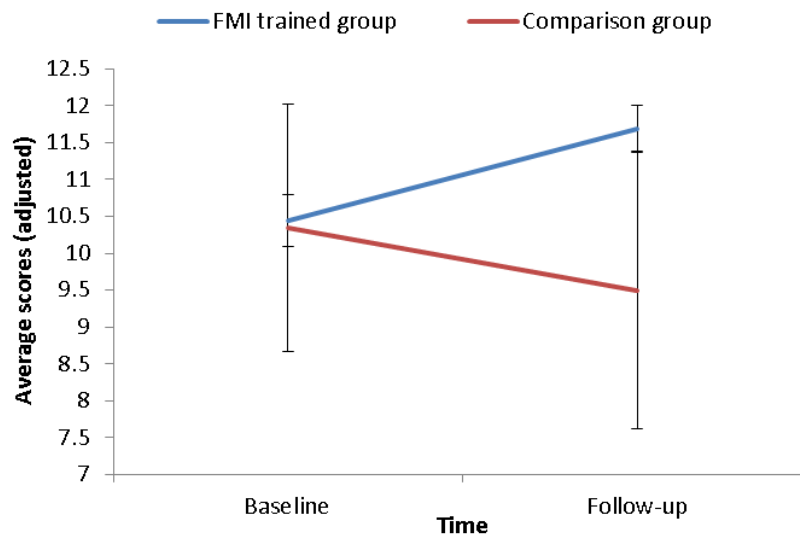


Figure 1. Group by time interaction effect on ability to support offender rehabilitation among all staff

The Bayesian analyses of the interaction effects of group and time on the outcome measures was consistent with the ANOVA findings. The Bayes factors indicated that there was sufficient evidence of an interaction between time and group for the ability to support offenders' rehabilitation measure for all staff (see Table 5). Bayesian analyses did not find sufficient evidence for any other interactions between group and time of survey for the other measures.

### Custodial officers

#### *Mixed ANOVA analyses*

Table 6 shows the results of the mixed ANOVA analyses for the custodial officer sample. The group and time main effects were generally similar to the total staff sample. The only differences in the results were that the custodial officer sample did not reveal a significant group effect on the attitude towards prisoners and motivation to support offenders' rehabilitation measures, after adjusting for time of measurement. There was also no significant time effect on the job satisfaction measure, after adjusting for group.

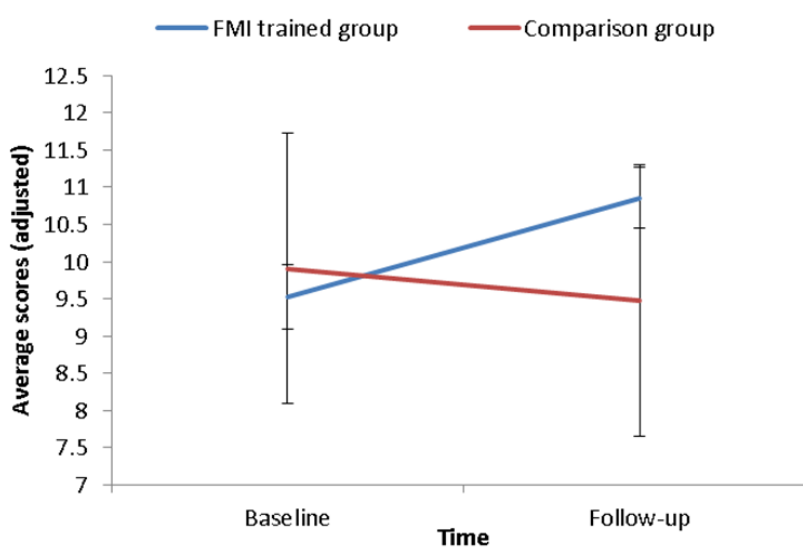
Again, the most notable finding from the mixed ANOVAs was a moderate significant interaction effect between time and group on custodial officers' perceived ability to support offenders' rehabilitation. FMI-trained custodial officers showed change in their perceived ability between the baseline and follow-up survey that was significantly different to patterns of change returned by officers in the comparison group (see Table 6).

The results of the post-hoc pairwise comparisons were largely similar to the total staff sample. There was a statistically significant improvement for FMI-trained custodial officers in their ability to support offenders' rehabilitation, which was 1.3 points higher at follow-up compared to baseline ( $p < .001$ ,  $CI_{95\%} = [.92, to 1.75]$ ) (see Figure 2). Meanwhile, attitudes among custodial officers in the comparison group regarding their ability to support rehabilitation showed a slight, non-significant decline over time. Similar to the ANOVA results for the total staff sample, the analyses for the sample of custodial officers did not identify significant interaction effects between group and time on the remaining outcome measures.

**Table 6.** Mixed ANOVA and Bayesian interaction and main effects on each of the outcome measures for FMI-trained and comparison group custodial officers

	Mixed ANOVA results		Bayes Factor (BF <sub>10</sub> )	Group (FMI-trained vs. comparison)		Bayes Factor (BF <sub>10</sub> )	Time (pre-FMI vs. post-FMI)		Bayes Factor (BF <sub>10</sub> )
	<i>F</i>	$\eta^2_p$	<i>Time* Group</i>	<i>F</i>	$\eta^2_p$	<i>Group</i>	<i>F</i>	$\eta^2_p$	<i>Time</i>
Attitudes towards prisoners	.884	.003	0.37	1.944	.007	0.74	4.252*	.016	>100
Motivation	2.962	.011	0.98	2.814	.011	0.88	2.962	.011	>100
Ability	5.960*	.022	<b>4.16</b>	.572	.002	0.35	1.538	.006	>100
Organisational job demands	.016	.000	0.22	13.960***	.052	<b>86.91</b>	.030	.000	0.09
Operational job demands	.241	.001	0.25	6.736*	.026	<b>4.52</b>	.022	.000	0.11
Job stress	.021	.000	0.23	5.455*	.021	2.76	.303	.001	0.13
Job satisfaction	1.129	.005	0.33	13.065***	.050	<b>61.10</b>	3.302	.013	0.39

Note: \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ ;  $\eta^2_p$  = partial eta squared effect size. **Bold:** Substantial to Decisive evidence of favour towards a hypothesis. > 1 = Alternate, < 1 = Null



**Figure 2.** Group by time interaction effect on ability to support offender rehabilitation among custodial officers

### Bayesian analyses

The Bayesian analyses supported the ANOVA group and time main effects in most cases. The Bayes factors identified sufficient evidence of significantly lower organisational and operational demands and higher job satisfaction among FMI-trained custodial officers than the comparison group. However, the

significantly lower ratings of job stress among FMI-trained custodial officers relative to the comparison group identified through the ANOVA was only anecdotally supported by the Bayes factors.

The Bayesian analyses also identified significantly higher scores on the attitudes towards prisoners measure over time among all custodial officers.

Additionally, the Bayesian analyses found sufficient evidence to support significantly higher average scores on the measures of motivation and ability to support offenders' rehabilitation (see Table 6).

Consistent with the standard ANOVA models, the Bayesian analyses found sufficient evidence in support of an interaction effect between group and time on the ability outcome measure. Similarly, the Bayesian analyses did not find sufficient evidence for significant group x time interaction terms on any of the other measures (see Table 6).

## DISCUSSION

The current study aimed to develop an understanding of the impact of FMI training on custodial staff attitudes towards prisoners, their motivation and ability to support offenders' rehabilitation, and their subjective perceptions of job demands, job stress and job satisfaction. In doing so, the study addressed two research questions: the first examined whether these outcomes changed before and after training for those who had been trained in FMI; the second examined whether patterns of change on these outcomes differed for FMI-trained staff compared to a comparison group of staff yet to receive the training.

### Outcomes of FMI training

The first set of analyses assessed changes in the outcome measures for staff who had completed FMI training. Findings indicated that, following FMI training, staff reported more positive attitudes towards prisoners, as well as greater motivation and an increased ability to support offenders' rehabilitation. The results support several of the key findings from the U.K. evaluations of FMI regarding staff attitudes towards prisoners and their motivation and ability to engage in rehabilitative

conversations with prisoners (Kenny & Webster, 2015; Tate et al., 2017).

While it is promising to see changes in several outcome measures for FMI-trained staff, examining patterns of change among trained staff only does not allow for us to causally attribute outcomes to the effects of FMI. Staff could have experienced other influences over the same time period that affected their responses to the measures. To address this, the second set of analyses utilised a design that was able to infer causality between FMI training and the outcome measures of interest, by contrasting patterns of change among FMI-trained staff to those of a comparison group of staff who had not yet received the training.

Only one outcome could be directly attributed to FMI training, that being ability to support offenders' rehabilitation. The results demonstrated that, over a 6-week period, staff who received FMI training felt they had a better ability to support offenders' rehabilitation after completing the training, compared to staff who were yet to receive the training. This finding indicates FMI training played a direct role in providing staff with new skills to help them support inmates in their rehabilitative efforts.

Interestingly, while FMI-trained staff reported an increase in their ability to support offenders' rehabilitation, those in the comparison group reported a decrease in their ability. Because staff in the comparison group were aware of FMI training but were yet to receive it, they may have felt even more ill-equipped to support offenders' rehabilitation compared to those who were given the opportunity to enhance those skills. One study that lends support to this notion examined employee attitudes about training and perceived job proficiency (Truitt, 2011). Those who felt they received updated and adequate training reported a feeling of increased job proficiency, while those who did not feel they received updated and adequate training reported a feeling of reduced competency. It stands to reason then, that staff

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from the comparison group would experience an increased ability to support offenders' rehabilitation following completion of FMI training.

The current study, however, failed to identify a significant connection between FMI training and subjective perceptions of job demands, job stress and job satisfaction. While staff may be supportive of initiatives that support offender rehabilitation, such as FMI, there are a range of other factors that influence how they perceive their job, and feelings of stress or satisfaction. The measures used in the current study asked about specific organisational (e.g., understaffing and resource inadequacy) and operational (e.g., possibility of violence from offenders) demands, as well as how satisfied staff are with specific aspects of their job (e.g., work conditions, pay etc.). The measure of job stress was focused solely on subjective psychological responses to their job (e.g., how much the job made staff feel tense or uptight, frustrated or angry, worried, under pressure etc.). Vickers-Pinchbeck's (2019) evaluation of FMI identified that officers supported the aims of FMI but felt the effectiveness or use of FMI may be hindered through issues related to inexperienced staff, and a lack of staffing and resources.

It may be that FMI does not directly influence subjective perceptions of job demands, job stress and job satisfaction, but instead may have indirect effects on such outcomes. Specific elements of an officer's role, such as perceived dangerousness or role conflict are often linked with job stress or job dissatisfaction (e.g., Cullen et al., 1985; Dowden & Tellier, 2004; Misis et al., 2013). On the other hand, staff who have more positive attitudes towards prisoners or who have more rehabilitative orientations are less likely to experience job stress and more likely to be satisfied with their job (e.g., Caeti et al., 2003; Cullen et al., 1989; Dowden & Tellier, 2004; Jurik & Halemba, 1984). It is possible that, over time, the effects of FMI training on staff attitudes towards inmates and support for

rehabilitation may become more pronounced, which may then have led on effects in reducing subjective perceptions of job demands and job stress, and increasing job satisfaction.

The 6-week period between the baseline and follow-up surveys may also not have been sufficient for FMI to become embedded as common practice for staff. In Kenny and Webster's (2015) FMI evaluation, staff reported improvements in job satisfaction across time, from pre-training to 6 weeks and 3 months post-training, suggesting a longer follow-up period may help identify further changes associated with FMI training. Staff involved in Kenny and Webster's (2015) evaluation also identified barriers to implementing FMI, including struggling to identify opportunities where they could use FMI with inmates, limited capacity to take the time needed to use FMI skills, and a lack of confidence in employing new skills. FMI training is designed to instil a change in culture towards one that is more conducive to rehabilitation (Vickers-Pinchbeck, 2019). Such change takes time and occurs in cycles of enthusiasm (e.g., high energy to work towards agreed ideals), doubt (e.g., whether people feel they have the skills needed to achieve their objective), and maintenance (i.e., changes are internalised and accepted as the norm) (Thomson & Parrish, 2002).

Given these considerations, the results of our study suggest that FMI training may have achieved what it set out to do in terms of immediate outcomes, while distinguishing these from longer term outcomes. That is, it provided staff with the tools to help support offenders' rehabilitation. As FMI begins to set in as a business-as-usual approach, additional long-term effects may also take place. For example, ongoing FMI interactions between staff and inmates may continue to improve relationships that could have flow-on effects for inmate willingness to participate in rehabilitation programs, as well as fewer instances of inmate misconduct and staff assaults. Such outcomes are more likely to reduce



how dangerous staff perceive their job, and improve views about their work conditions, in turn reducing job stress and increasing job satisfaction (e.g., Armstrong & Griffin, 2004; Brough & Williams, 2007; Cheeseman et al., 2011; Misis et al., 2013). These larger real-world effects are unlikely to occur over a short period of time, and therefore a longer follow-up study would be needed to assess the potential of more long-terms effects of FMI.

We note that across all analyses, results for the total staff sample were replicated with the custodial officer sample. This analytical approach was adopted to address the possibility that effects of training for the dominant custodial officer group, who comprised the majority of FMI trainees, may have been statistically suppressed by variability in outcomes across the multiple staff groups included in the total sample. Given the large group of custodial officers, it is not surprising that patterns of results for the total sample would largely reflect those of custodial officers specifically. However, this does not necessarily mean that effects of training were homogeneous for all staff groups. We are currently conducting further research to examine how the differing skillsets and professional duties of various staff groups are associated with different baseline characteristics and effects of FMI training on the domains assessed in the current study.

### Limitations and future directions

Some limitations of the current study are noted. The most salient issue was that the sample of comparison staff who did not receive FMI training was significantly smaller than that of the sample of FMI-trained staff. Staff in comparison centres were encouraged by senior staff to complete both the baseline and follow-up surveys; however, it may be that staff in this group did not find it necessary to complete the follow-up survey as only 6 weeks had passed since they had first completed the same survey and they had not been subject to any specific changes (such as training) during that time. We have supplemented the primary ANOVA analyses in

the current study with Bayesian analyses to account for the small comparison sample. The Bayesian analyses generally supported the ANOVA results; however, a larger comparison sample may have still yielded different results through increasing power and reducing the likelihood of Type II errors (i.e., a false negative) (Button et al., 2013; Smith et al., 2002; Tabachnick & Fidell, 2013).

The two groups were also not equal with regard to their attitudes towards prisoners and motivation to support offenders' rehabilitation before FMI training had taken place. Staff reported more positive attitudes towards prisoners and greater motivation to support offenders' rehabilitation at the training sites to begin with, which suggests the initial training sites for the pilot and early roll-outs of training may have been influenced to some extent by selection for staff who were more likely to score well on the outcomes of interest at baseline. A number of training and comparison sites were selected in an attempt to control for potential differences; however, given centres vary by size, geographical location, inmate population, and the management style and philosophy of the centre, it is difficult to ensure all such variations are accounted for. In this regard, an advantage of the design used in this study is that it is largely robust to differences in sample composition and stable contextual influences, by allowing staff to act as their own comparison over time as well as making between-group comparisons.

The brief 6-week follow-up period has previously been discussed as a possible explanation for the null findings regarding several of the outcome measures of interest. The evaluation of FMI training in NSW correctional centres is ongoing with a 12-month follow-up survey currently in development. The 12-month follow-up survey will help determine whether staff who have had more opportunities to use FMI with inmates over a longer period of time experience further change, particularly with regard

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to subjective perceptions of job demands, job stress and job satisfaction.

Finally, we note that this study only examines a subset of potential outcomes that are relevant to FMI, and it is not intended to serve as a comprehensive evaluation of FMI process or impacts. For example, previous FMI evaluations have identified positive changes for inmates following staff participating in FMI training. Officers in the U.K. reported improvements in prisoners' thinking skills, self-efficacy and problem-solving abilities after using FMI in their conversations (Kenny & Webster, 2015). Prisoners have also been found to feel an increased sense of self-efficacy, autonomy and self-confidence, as well as improved decision-making and consequential thinking following interactions with staff trained in FMI (Tate et al., 2017). They also indicated that FMI-trained officers were better at diffusing negatively charged situations, and generally helped facilitate change and promote personal growth (Tate et al., 2017). These positive outcomes for inmates may lead to further changes as previously identified, such as an increased uptake of program participation and completion, and reduced inmate misconduct, inmate-staff assaults and reoffending. Future evaluations of FMI should therefore aim to examine such outcomes.

## Conclusion

FMI is a key initiative aimed at building a more rehabilitative culture and improving relationships between staff and inmates (Vickers-Pinchbeck, 2019). Such relationships are important for engaging offenders and encouraging participation in rehabilitation (Hollin & Palmer, 2006; Ricciardelli & Perry, 2016). Early evaluations of FMI in the U.K. (Kenny & Webster, 2015; Tate et al., 2017; Vickers-Pinchbeck, 2019), and now NSW, highlight the promising potential for FMI training to produce positive outcomes for both staff and inmates.

The current study provides some indications that participation in FMI training may improve staff attitudes towards prisoners and their motivation and ability to support offenders' rehabilitation compared to pre-training. Using robust quasi-experimental methodologies, this study supports conclusions that FMI has a causal impact in increasing staff perceptions of their ability to support offenders' rehabilitation, relative to staff who had not completed training. That is, FMI training was able to equip staff with the skills they felt they needed to support inmates in their rehabilitative efforts.

Providing staff with the tools they need to support inmates is an encouraging step forward for helping staff build more positive relationships with inmates. As Ricciardelli and Perry (2016) identified, relational but secure staff-inmate relationships are important, and are built on honesty, consistency, patience, being a good listener and treating inmates as equals. FMI training teaches staff skills that help develop such relationships through, for example, building trust, confidence and rapport; enhancing active listening skills; and learning when and how to create space and roll with resistance.

As staff continue to use FMI skills and develop supportive relationships with inmates, there is further potential for flow-on effects that will ultimately promote a more rehabilitative prison environment. In turn, FMI may help to reduce subjective perceptions of job demands, lower job stress, and increase job satisfaction. Overall, findings from the current study provide the first quantitative evidence for the positive effects of FMI training. Ongoing research and evaluation in this area will tell us even more about how FMI training can have positive outcomes for both staff and inmates.

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## APPENDIX 1

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### Factor analysis differentiating key items within motivation and ability to support offenders' rehabilitation

Item	Motivation (Factor 1)	Ability (Factor 2)
I am motivated to help offenders become more ready for change.	.897	
I am motivated to help offenders change their criminal thinking or attitudes.	.888	
I am motivated to help offenders solve their own everyday problems.	.827	
It is part of my role to help offenders improve their attitudes and learn new skills.	.779	
It is part of my role to help offenders rehabilitate.	.760	
I am motivated to build good relationships with offenders at my centre.	.738	
I am optimistic that what I do with offenders can help them change for the better	.694	
I have the skills I need to help offenders change their criminal thinking or attitudes		.946
I have the skills I need to identify offenders' criminal thinking or attitudes		.872
I have the skills I need to help offenders achieve positive and prosocial goals		.862
I have the skills to motivate offenders to change		.825
<b>Eigenvalues of 1 and above explained</b>	6.630	1.600
<b>% total variance explained</b>	57.59	12.21

The two components explain a total of 69.80% variance.

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy = .904

Bartlett's Test of Sphericity

Approx. Chi-Square = 4375.722

df = 55

sig. = .000

Extraction Method: Principal Axis Factoring

Rotation Method: Oblimin Rotation

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## APPENDIX 2

### Bayes factors and their corresponding hypothesis interpretations (Jeffreys, 1961)

BF <sub>10</sub>	Support for Hypothesis
<0.01	Decisive evidence for null hypothesis
0.03–0.01	Very strong evidence for null hypothesis
0.10–0.03	Strong evidence for null hypothesis
0.33–0.10	Substantial evidence for null hypothesis
1–0.33	Anecdotal evidence for null hypothesis
1	No Evidence
1–3	Anecdotal evidence for alternate hypothesis
3–10	Substantial evidence for alternate hypothesis
10–30	Strong evidence for alternate hypothesis
30–100	Very strong evidence for alternate hypothesis
>100	Decisive evidence for alternate hypothesis

# Other CRES Research Titles

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Sept 2021	Process evaluation of the Custody Based Intensive Treatment (CUBIT) program for sex offender: Within-treatment change	Sept 2019	Process evaluation of the Practice Guide for Intervention (PGI): Staff experiences of implementation and continuing service delivery
Sept 2021	Impact Evaluation of the Gurnang Life Challenge Specialised Program for Young Adult Male Offenders in NSW	Sept 2019	Desistance in an ageing inmate population: An examination of trends in age, assessed risk of recidivism and criminogenic needs
March 2021	Evaluation of High Intensity Program Units (HIPUs): Implementation of an innovative intervention model for offenders with short custodial sentences	Aug 2019	The Custody Triage Risk Assessment Scale (Custody TRAS): An updated statistical model for predicting risk of return to custody
March 2021	Women in prison: An examination of the support needs of women in custody with children	May 2019	Effects of the Practice Guide for Intervention (PGI) on behaviour change intervention dosage among community-based offenders
Feb 2021	The Initial Transitional Support (ITS) program: A profile of offender participation and service delivery	May 2019	Blending care and control in delivery of the Practice Guide for Intervention (PGI): An assessment of the quality of dual role relationships between offenders and supervising officers in the community
Oct 2020	Automated assessment of sexual recidivism risk for custody-based sex offenders	Feb 2019	Process evaluation of the Practice Guide for Intervention (PGI): Staff perceptions of community supervision in the context of change
Oct 2020	The predictive validity of general risk assessment tools for offence-specific recidivism among domestic violence offenders	Oct 2018	The Community Triage Risk Assessment Scale: A Statistical model for predicting recidivism among community-based offenders
Oct 2020	Access to programs and services among Culturally and Linguistically Diverse (CALD) offenders: The case of EQUIPS	Aug 2018	Assessing offender change over treatment: The influence of treatment context on self-reported antisocial attitudes
Oct 2020	Process evaluation of Custodial Case Management: Case plans	Aug 2018	Forty is the new thirty (for recidivism): Trends in offender age, reimprisonment, and time to desistance among NSW custodial population
Aug 2020	Understanding the spectrum of domestic violence: Risk factors, treatment pathways and recidivism among offenders who commit intimate partner or non-intimate partner violence	Aug 2018	The Criminal Reimprisonment Estimate Scale (CRES): A Statistical model for predicting risk of reimprisonment
Aug 2020	Process evaluation of the High Intensity Program Units (HIPUs): Within-treatment change	Aug 2017	Evaluation of vocational training in custody: Offenders' experiences of training and pathways to post-release employment
Aug 2020	Evaluation of the Practice Guide for Intervention (PGI): Relationship between offender needs and PGI use in case planning and supervision practice		
Dec 2019	Effectiveness of the Initial Transitional Support (ITS) Service 2014-2017		
Sept 2019	Evaluation of EQUIPS treatment pathways for domestic violence offenders in New South Wales		



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