Cognitive Skills Programs for Female Offenders in the Community: Effect on Reconviction

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Abstract

This paper reports an evaluation of two cognitive skills programs (Enhanced Thinking Skills and Think First) with 801 women offenders serving community sentences in the English and Welsh Probation Service. A quasi-experimental design was used to compare the reconviction rates at 1 year follow-up of offenders who completed the program, offenders who started but did not complete the program, and a comparison group who were not allocated to the program. Multivariate analysis showed that the Completers did not have a significantly lower rate of reconviction than the Comparison group. However, the Non-completers had a significantly higher rate of reconviction than the Comparison group. No differences were found in reconviction between the Completers and Non-completers group. The implications of the findings for interventions with women offenders are discussed.

Keywords: women offenders, cognitive skills, intervention, community, reconviction
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Recent years have seen an increased interest in offending by women with a growing realization that women offenders form a distinct group of offenders from men in terms of their patterns of offending, risk factors and pathways into offending, and criminogenic needs (cf. Wright, Van Voorhis, Salisbury, & Bauman, 2012). Recent figures reported in North America showed that 25.4% of arrests in 2011 were of women (Snyder & Mulako-Wangota, 2014) and that in 2012 women comprised 6.9% of the prison population (Carson & Mulako-Wangota, 2014) and 24% of offenders on probation (Bureau of Justice Statistics, 2013). Similarly in England and Wales, in 2011 women comprised 15.8% of all arrests and 23.9% of all convictions, and made up 4.9% of the prison population and 15.1% of offenders supervised by the Probation Service (Ministry of Justice, 2012a). As the spotlight has turned onto women offenders this has led to a focus on how best to work with women offenders to reduce their reoffending.

There is now a wealth of research showing ‘what works’ in reducing reoffending. Meta-analyses have shown that effective treatment should adhere to three principles (Andrews, 2001). First, the risk principle stating that treatment intensity should be proportional to risk level, with more intensive services provided to the highest risk offenders; second, the need principle, which states that interventions should address the criminogenic needs of offenders (i.e. those needs associated with their offending); and third, the responsivity principle, whereby interventions should be designed to match offenders’ learning styles with attention paid to specific responsivity factors such as demographic and other personal characteristics (e.g., gender, minority status, cognitive ability, mental health, and personality). Furthermore, structured interventions that are based on cognitive social learning theory (Lipsey, Chapman, & Landenberger, 2001; Wilson, Bouffard, & MacKenzie, 2005) and delivered in such a way as to ensure high treatment integrity are most effective
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(Andrews & Dowden, 2005). However, the vast majority of the research informing our knowledge about effective interventions has been conducted with male samples (Andrews et al., 1990) and it is not clear whether, or to what extent, these findings can be generalized to women offenders.

**What Works for Women Offenders**

To date there have been several meta-analyses examining the principles of effective correctional interventions with women offenders, although some studies have such a small proportion of women offenders that no firm conclusions can be drawn (e.g., Landenberg & Lipsey, 2005). Dowden and Andrews (1999) conducted a meta-analysis of 26 studies with 45 effect sizes (ES), of which 16 studies were with exclusively female samples (24 ES). The most effective interventions were those that adhered to the risk-need-responsivity (RNR) principles, with interventions that included all three principles having an average ES of 0.34 (women only studies; 0.36 for studies with predominately women samples). An average ES of 0.34 can be interpreted as a recidivism rate of 33% for the treatment group and 67% for the comparison group. In a later study, Andrews and Dowden (2006) examined the risk principle among male and female offenders, reporting that the risk principle was stronger for female offenders than male offenders. Lovins, Lowenkamp, Latessa, and Smith (2007) took a closer look at whether the risk principle holds for women offenders with a sample of 1,340 female offenders, comparing women who received intensive residential services to those paroled to the community with supervision only. Multivariate analyses examining the risk level x treatment interaction showed that women in the treatment group had lower rates of re-arrest at 2 years follow-up, with higher risk women benefiting more than lower risk women. Furthermore, for lower risk women there was a negative impact of receiving intensive services as they were more likely to be re-arrested during the follow-up period than the low risk women receiving supervision only.
Notwithstanding the fact that there is some evidence the RNR principles apply to women offenders (Andrews & Dowden, 2006; Dowden & Andrews, 1999), when it comes to deciding how to intervene with women to reduce their offending, there has been some debate as to the appropriateness of using interventions initially designed for male offenders. A key issue is whether these programs target criminogenic needs relevant to females and whether criminogenic needs are the same for male and female offenders (Covington & Bloom, 2003). The RNR model of correctional assessment and rehabilitation (Andrews & Bonta, 2010) identifies eight ‘central’ risk/need factors. These consist of the ‘big four’ of criminal history, antisocial personality patterns, antisocial associates and antisocial attitudes/beliefs and thinking styles; and the ‘modest four’ of family/marital, school/work, leisure/recreation and substance abuse (Andrews et al., 2012). There is a growing body of research examining the predictive validity of these factors via the use of the Level of Service family of assessments (Level of Service Inventory-Revised, LSI-R, Andrews & Bonta, 1995; Level of Service/Case Management Inventory, LS/CMI, Andrews, Bonta, & Wormith, 2004) with male and female offenders which has shown that total risk scores on these measures have a good level of predictive ability for reconviction for both genders (Andrews et al., 2012; Rettinger & Andrews, 2010).

Gender-Responsive Needs

There is also a body of work that suggests women may have other gender-specific or gender-responsive risk/need factors which are either not present among male offenders, are found in both male and females, but to a greater extent among female offenders, or are present to an equal extent among both genders but impact on female offenders in different ways to male offenders (Brennan, Breitenbach, Dieterich, Salisbury, & Van Voorhis, 2012; Wright et al., 2012). These female-specific risk/need factors relate to issues surrounding mental health, victimization and abuse and substance abuse (Blanchette & Brown, 2006; Coid
et al., 2001; Hollin & Palmer, 2006; Wright et al., 2012). Although there is a greater prevalence of mental health problems among offenders than the general population (Fazel & Danesh, 2002; Steadman, Osher, Robbins, Case, & Samuels, 2009), there is some evidence that the type of mental health problems differ by gender, with depression, anxiety and self-harm more prevalent among female than male offenders (Drapalski, Youman, Stuewig, & Tangney, 2009). Women offenders also have higher rates of a history of victimization and abuse starting from childhood and continuing into adolescence and adulthood (Browne, Miller, & Maguin, 1999; McClellan, Farabee, & Crouch, 1997; Salisbury & Van Voorhis, 2009). Finally, the association between substance abuse and offending is well documented among both male and female offenders (see Fazel, Bains, & Doll, 2006; McMurrin, 2006).

Some research has suggested that there may be differences in the substance use of male and female offenders in terms of the patterns of drug use and reasons for using drugs (Langan & Pelissier, 2001). A number of studies with offenders have found that women have more serious patterns of drug use than men, with men being more likely to use cannabis, ecstasy and cocaine powder, while women are more likely to use crack cocaine and opiates such as heroin (Holloway & Bennett, 2007; Langan & Pelissier, 2001; Schulte, Mouzos, & Makkai, 2005; Zhang, 2003). Furthermore, men report using drugs for hedonistic reasons in contrast to women who often report using drugs to ‘self-medicate’ to cope with abuse and the subsequent trauma (Chesney-Lind, 1997; Chesney-Lind & Shelden, 2004; Holloway & Bennett, 2007; Langan & Pelissier, 2001).

The importance of these areas of need for women offenders can be accounted for by a number of theoretical perspectives. The pathways perspective argues that pathways to offending differ between men and women, with women’s pathways typically including abuse, drug use, mental health problems and socio-economic deprivation (Daly, 1992, 1994). According to this approach drug abuse and criminal behaviours can result from the need to
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remove themselves from abusive relationships, with these behaviours used as coping and survival mechanisms. Both qualitative and quantitative research supports the presence of pathways among women offenders in which victimization, substance use, mental health and offending are interlinked (Brennan et al., 2012; Chesney-Lind, 1997; Chesney-Lind & Shelden, 2004; Messina, Grella, Burdon, & Prendergast, 2007; Salisbury & Van Voorhis, 2009). Relational Cultural theory (Jordan, Kaplan, Miller, Stiver, & Surrey, 1991) proposes that women’s psychological development is rooted in their personal relationships, including with their family and ‘marital’ relationships. Thus, mental health problems and substance use can be understood in the context of coping with or escaping from abuse and victimisation in relationships.

While there is strong evidence showing that the areas posited as gender-specific needs are associated with offending among women the research does not always include male comparison groups. There has also been mixed findings regarding the degree of additional predictive ability contributed by these gender-specific needs with respect to recidivism. Lowenkamp, Holsinger, and Latessa (2001) found that childhood victimization did not add any incremental prediction to total LSI-R scores for recidivism. Similar findings were reported by Rettinger and Andrews (2010) whereby a number of variables relating to abuse as a child and adult, suicide attempts and self-harm, parenting, emotional distress and health did not add to the predictive ability of the LS/CMI. These results have led some authors to argue that these factors are non-criminogenic needs or responsivity factors rather than major risk and criminogenic need factors (Rettinger & Andrews, 2010). However, more recently, Salisbury, Van Voorhis and colleagues have developed a gender-responsive needs assessment intended to supplement gender-neutral assessment tools such as the LSI-R or LS/CMI (Salisbury, Van Voorhis, & Spiropoulos, 2009; Van Voorhis, Wright, Salisbury, & Bauman,
2010). This research confirms the predictive ability of the LSI-R with women offenders, but also found that addition of the gender-responsive factors improved prediction of recidivism.

**Criminal Attitudes and Cognition**

Meta-analyses show that among male offenders cognitive-behavioral programs targeting the thinking styles, attitudes and beliefs associated with offending are effective in reducing recidivism (Lipsey et al., 2001; Wilson et al., 2005). This reflects the prominence of criminal cognitions in the criminogenic needs literature (Andrews & Bonta, 2010). In contrast, it is less clear whether such cognitions should be the primary target of interventions for women offenders. Some studies using the LSI-R and LS/CMI show criminal cognitions to be significantly associated with recidivism among women offenders (Andrews et al., 2012; Palmer & Hollin, 2007; Rettinger & Andrews 2010). In contrast other research has found that criminal cognitions are not significantly associated with recidivism among women offenders (Reisig, Holtfreter, & Morash, 2006; Salisbury et al., 2009; Van Voorhis et al., 2010). Furthermore, the absolute level of criminal cognitions among women has been shown to be low, with Van Voorhis et al. (2010) reporting that only a small proportion of women offenders in their study demonstrated criminal thinking. Similarly Rettinger and Andrews (2010) found that a low percentage (8 percent) of women had a high need in this area. This mixed evidence makes it difficult to know whether criminal cognitions are an appropriate treatment target for women offenders, a criminogenic need for only some groups of women offenders, or whether resources would be better directed in other areas.

In contrast to the male offender literature, there are few evaluations of interventions that target criminal cognitions among female offenders. Spiropoulos, Spruance, Van Voorhis, and Schmitt (2005) compared the effectiveness of a short cognitive skills program focusing on impulsivity (Problem Solving) with male and female offenders in prison and community settings in North America. Offenders who completed the program had
significantly fewer reported misconducts than comparison groups for both genders in the community and for women offenders in prison. Some of the women in prison also completed a more gender responsive cognitive skills program, although these women did not have a significantly better outcome than those who completed the Problem Solving program alone.

**Cognitive-Behavioral Programs in England and Wales**

The English and Welsh Prison and Probation Services deliver a number of cognitive-behavioral interventions to offenders. Although designed for male offenders, in recent years some of these programs have been used with female offenders. Enhanced Thinking Skills (ETS; Clark, 2000) and Think First (TF; McGuire, 2000) are ‘general’ offending behavior programs designed for male offenders who have committed a range of offenses (in contrast to offense- or offender-specific interventions). The programs target the thinking styles associated with offending (cf. Antonowicz & Ross, 2005; Ross & Fabiano, 1985) to encourage the development of prosocial attitudes and behavior. Based on cognitive-behavioral principles the programs are delivered in group settings. ETS was developed as a shorter alternative to the Reasoning and Rehabilitation (R & R; Porporino & Fabiano, 2000) program and was initially run within the Prison Service of England and Wales. It was subsequently adapted for use within the Probation Service. At the time of data collection the ETS program comprised 20 x 2 hour sessions. Think First was also designed to be run in both prison and probation. However, although it uses similar techniques to ETS, it not only targets thinking skills, but also includes an explicit focus on participants’ offenses. Within the Probation Service, TF consists of 22 x 2 hour group sessions, with four introductory pre-group and six post-group individual sessions. Both programs meet national accreditation standards for England and Wales (Lipton, Thornton, McGuire, Porporino, & Hollin, 2000).

A number of evaluations of these programs have been conducted within the English and Welsh Prison and Probation Services. Within the Prison Service, ETS has typically been
evaluated alongside the R & R program. The first study reported a significantly lower rate of reconviction at 2 years follow-up among 667 adult male program participants (including non-completers, who comprised 10% of the treatment group) as compared to a matched control group \((n = 1,801)\) across all risk categories (Friendship, Blud, Erikson, Travers, & Thornton, 2003). However, these positive results were not found in subsequent studies with adult and young male offenders (Cann, Falshaw, Nugent, & Friendship, 2003; Falshaw, Friendship, Travers, & Nugent, 2004), although Cann et al. (2003) did report an effect on reconviction of treatment completion at 1 year follow-up. There is less research on TF in prison settings, although McGuire (2005) reported significant pre—post score changes among program completers in the desired direction on a range of psychometrics, including measures of impulsivity, locus of control, self-esteem, empathy and social problem-solving.

Within the Probation Service, a number of evaluations of these programs have been conducted with male offenders. In an early evaluation of TF, McGuire and Hatcher (2001) found significant results for reduced criminal attitudes and impulsiveness and increased empathy and self-esteem for offenders who had participated in the program (in 2001 TF was called Offence-Focused Problem Solving), although there was no comparison group in this study. A study by Roberts (2004) in three Probation Areas found significant reductions in reconviction for TF program completers at 6, 12 and 18 months follow-up. Large scale reconviction studies in the Probation Service combining data for three programs (ETS, R & R and TF) have reported that program completers had significantly lower rates of reconviction than the comparison group and program non-completers. Furthermore, non-completers had significantly higher rates of reconviction than the comparison group (Hollin et al., 2008; McGuire et al., 2008; Palmer et al., 2007). In each study the pattern of results was similar for the individual programs.
Although ETS and TF were designed for male offenders, they have also been used with women offenders in both prison and community settings, albeit with minimal adaption. However, there is a lack of evidence as to their effectiveness with women other than one study by Cann (2006) that reported an evaluation of ETS and R & R with female prisoners in the English and Welsh Prison Service. Cann (2006) found no significant differences between the treatment and comparison samples for 1 year or 2 year reconviction rates. Similar results were obtained when considering only program completers. Examination of the 1 year reconviction rates for the individual programs showed no significant effect of treatment for ETS, while for R & R the treatment group had a significantly greater rate of reconviction than the comparison group (19.7% vs. 10.1%).

Study Aims

Given the lack of research evaluating cognitive-behavioral interventions with female populations, this study aims to examine the effectiveness of the gender-neutral Enhanced Thinking Skills and Think First programs with women offenders serving community sentences in the English and Welsh Probation Service. Reconviction rates at one year follow-up are compared between offenders who completed the programs, those who started but did not complete (non-completers), and a comparison group who did not participate in the programs.

Method

Participants

The participants were 801 women offenders serving community sentences in England and Wales. At the time of sentence, the offenders’ age ranged from 17-56 years, with a mean of 28.47 years ($SD = 8.52$), and the number of previous convictions ranged from 0-38, with a mean of 4.59 ($SD = 5.65$). The offenders had a range of index offenses: 382 (47.69%) theft and handling stolen goods, 80 (9.99%) fraud and forgery, 59 (7.37%) violent offenses, 25
(3.12%) burglary, and 255 (31.83%) other offenses, including motoring offenses and criminal damage.

Of these offenders, 281 were court-mandated to attend an offending behavior program as part of their sentence. Suitability for the program was determined on the basis of a pre-sentence report by a Probation Officer that considered offenders’ cognitive deficits and risk of reconviction. The remaining 520 women had received similar sentences to those in the treatment group but without the requirement to attend a program; this was due to the programs being rolled out at different times in Probation Areas. Table 1 presents the descriptive statistics for the Treatment and Comparison groups. Differences between the two groups were examined using t-tests and showed that the Treatment group was younger ($p < .001$), had higher risk scores ($p < .001$), and more previous convictions ($p < .001$) than the Comparison group. There was also a significant difference in offense type between the two groups: $\chi^2 (7, N = 801) = 19.43, p < .01$; this was mostly accounted for by a higher proportion of the Treatment group having a conviction for a theft and handling offense than the Comparison group. Within the treatment group, 205 women were required to attend TF and 76 women ETS.

**Data Collection**

For the treatment group, data were provided by Probation Areas in England and Wales. This information included offenders’ names, date of birth, index offense, date of sentence, and program information. Data for the Comparison group were drawn from the Probation Index, and provided offenders’ name, date of birth, index offense, and date of sentence.

Reconviction data for all offenders were gathered from the Offenders’ Index, a national government database that records reconvictions. These data included date of reconviction, reconviction offense, and Offender Group Reconviction Scale-2 scores (OGRS2; Taylor, 1999). The OGRS2 is a scale that uses nine demographic and criminal history variables to
produce an estimate of the probability of an individual’s reconviction within 2 years. Reconviction data were collected for all offenders at 1 year follow-up. Following previous research in this area (Hollin et al., 2008; Palmer et al., 2007, 2008, 2009) for offenders required to attend a program, the starting point for the follow-up period was taken from the date of the last session attended on the program, whereas for the Comparison group the starting point was their date of sentence. The rationale for this strategy is so that only reconvictions committed after the final program session are counted, although it could be argued that this doesn’t allow for passage of time for the Comparison group.

**Analysis Strategy**

As a quasi-experimental design was used, differences between the groups on key variables were statistically controlled. Individual matching was not considered to be feasible given the problems in obtaining exact matches without considerable data attrition. Using statistical controls – or population-based matching – is a common strategy within program evaluation research (Rossi, Freeman, & Lipsey, 1999). Four variables likely to have an effect on reconviction were controlled for: age, risk of reconviction, number of previous convictions and offense type. Sequential logistic regressions were conducted to examine the effect of treatment group on the rate of reconviction at 1 year follow-up, controlling for age, risk of reconviction (as assessed using OGRS2 scores), number of previous convictions, and offense type. Sequential Cox regression analysis was then used to examine time to reconviction for the three groups, again controlling for age, risk of reconviction (as assessed using OGRS2 scores), number of previous convictions and offense type. As the two programs are drawn from the same theory and evidence base, much previous research has combined them for analysis purposes (Hollin et al., 2008; McGuire et al., 2008; Palmer et al., 2007) and so the data from the two programs were combined for analysis. However, this strategy risks
masking any differential effects of the two programs, although to do so in the current study would risk statistical power with very small numbers of women in the completer groups.

**Results**

At 1 year follow-up, 364 offenders (45.4%) had been reconvicted, with a mean time to reconviction of 154.18 days ($SD = 97.72$). The reconviction rate for the Treatment group was 58.36% ($n = 164$) and for the Comparison group was 38.46% ($n = 200$). A sequential logistic regression was conducted to examine the effect of group on the rate of reconviction, controlling for age, risk of reconviction (as assessed using OGRS2 scores), number of previous convictions, and offense type. The control variables were entered at the first stage, producing a good model fit as assessed by the Hosmer and Lemeshow test: $\chi^2 (8, N = 801) = 14.23, p > .05$. For a model to be judged to have a good fit the Hosmer and Lemeshow test should be non-significant (Tabachnick & Fidell, 2013). This model was significantly better than a constant-only model containing only the intercept, but no predictor variables: $\chi^2 (10, N = 801) = 179.60, p < .001$.

The addition of treatment group led to a significant improvement in the model provided by the control variables: $\chi^2 (1, N = 801) = 5.76, p < .05$. The goodness of fit of the model as measured by the Hosmer and Lemeshow Test was also good: $\chi^2 (8, N = 801) = 10.08, p > .05$, with 69.9% correct classification of cases. Examination of the Exp ($B$) statistics showed that offenders in the Treatment group were significantly more likely to be reconvicted than offenders in the Comparison group: $OR = 1.50$, 95% CI [1.08, 2.10].

Of the 281 offenders who were required to attend a program as part of their sentence, 45 (16.01%) completed the program (Completers) and 236 (83.99%) started but did not complete the program (Non-completers). Table 2 presents the descriptive statistics for the offenders by completion status group. One-way ANOVAs and post-hoc Scheffé tests showed

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1 There was no significant difference in completion rates between the two programs.
that the Non-completer group was younger ($p < .01$), had higher risk scores ($p < .001$), and more previous convictions ($p < .001$) than the Comparison group. There was also a significant difference in offense type across the three groups: $\chi^2 (14, N = 801) = 25.04, p < .05$; this was accounted for by the Non-completer group having a larger proportion of Theft and handling stolen goods offenses and lower proportion of Other offenses than the Comparison and Completer groups.

The reconviction rates at 1 year follow-up for the three groups were 46.67% for Completers, 60.59% for Non-completers, and 38.46% for the Comparison group. The effect of treatment completion group on reconviction rate was examined using a sequential logistic regression. As before, age, risk of reconviction (OGRS2 scores), number of previous convictions, and offense type were entered as covariates at the first stage, and produced a good model fit as assessed by the Hosmer and Lemeshow test: $\chi^2 (8, N = 801) = 14.23, p > .05$. This model was significantly better than a constant-only model containing only the intercept, but no predictor variables: $\chi^2 (10, N = 801) = 179.60, p < .001$. The addition of treatment completion group led to a significant improvement in the model provided by the control variables: $\chi^2 (2, N = 801) = 6.51, p < .05$. The goodness of fit of the model as measured by the Hosmer and Lemeshow Test was also good: $\chi^2 (8, N = 801) = 6.13, p > .05$. Overall the model correctly classified 70.2% of cases, although this was more accurate for those offenders who were not reconvicted (75.7%) compared to those who were reconvicted (63.5%). Table 3 shows the contribution of the predictor variables to the model, along with the Wald and Exp ($B$) statistics.

To examine pairwise differences between the three groups, the logistic regression analysis was repeated with pairs of treatment completion group. These analyses showed that once age, risk of reconviction, number of previous convictions, and offense type were controlled, Non-completers were significantly more likely to be reconvicted than the
Comparison group: \( \chi^2 (1, N = 756) = 6.92, p < .01, \text{ OR} = 1.60, 95\% \text{ CI [1.13, 2.28].} \)

However, there was no significant difference in reconviction rate between the Completer and Non-completer groups or the Completer and Comparison groups.

The mean survival time for the three groups was 266.42 days (SD = 123.91) for Completers, 234.75 days (SD = 129.32) for Non-completers, and 285.07 days (SD = 118.40) for the Comparison group. Sequential Cox regression analysis was then used to examine time to reconviction for the three groups. As with the logistic regression, age, OGRS2 scores, number of previous convictions, and offense type were entered as control variables at the first step, followed by treatment completion group at the second step. The analysis showed a significant difference between the three groups for time to reconviction once age, OGRS2 scores, number of previous convictions, and offense type were statistically controlled: \( \chi^2 (2, N = 801) = 7.11, p < .05. \) Pairwise comparisons showed that Non-completers had a significantly shorter time to reconviction than the Comparison group: \( \chi^2 (1, N = 756) = 7.51, p < .01. \) There was no significant difference in time to reconviction between Completers and Non-completers: \( \chi^2 (1, N = 281) = 0.24, p > .05, \) or between Completers and the Comparison group: \( \chi^2 (1, N = 565) = 0.37, p > .05. \) The survival curves for the three groups are shown in Figure 1.

**Discussion**

This study showed no effect on reconviction of treatment completion for the two programs with women offenders. These results are consistent with an evaluation of ETS with women offenders in the English and Welsh Prison Service, where no effect of program completion on reconviction was found at a 1 year follow-up (Cann, 2006). The absence of treatment effect is in contrast to research with male offenders in community settings showing these two programs to be effective in reducing reconviction among program completers (Hollin et al., 2008; McGuire et al., 2008; Palmer et al., 2007). As these programs are
effective with men, it may be that the lack of effectiveness with women offenders is related to
gender; that is ETS and TF are not gender-responsive either in terms of the criminogenic
needs they target and/or their delivery style. The reconviction rate for non-completers was
not significantly different to the rate for completers, although it is a strong finding among
male offenders that non-completers have worse outcomes than completers (Hollin et al.,
2008; Palmer et al., 2007; Van Voorhis, Spruance, Ritchey, Listwan, & Seabrook, 2004).
However, the non-completers’ reconviction rate was significantly worse than the no treatment
comparison group, suggesting that non-completion of a program has an iatrogenic effect
compared to no treatment, a finding that is similar to male research (Hollin et al., 2008;
Palmer et al., 2007; Van Voorhis et al., 2004).

It is well established that programs that do not adhere to RNR principles are less
effective in reducing recidivism (Andrews, 2001; Andrews et al., 1990). For women
offenders it could be argued that ETS and TF violate both the needs and responsivity
principles. With reference to the needs principle, while there is evidence that for some
women criminal cognitions are a criminogenic need (Andrews et al., 2012; Rettinger &
Andrews, 2010), there is a growing body of research showing that women offenders have
gender-specific needs that are often of greater relevance to their offending (Brennan et al.,
2012; Wright et al., 2012). These gender-specific needs include mental health problems,
victimization and abuse, and substance use (Blanchette & Brown, 2006; Coid et al., 2001;
Hollin & Palmer, 2006; Wright et al., 2012). Treatment targeted at these needs may be more
appropriate through both reducing these issues and at the same time providing women with
the capacity to deal with the everyday issues, such as financial constraints and relationships,
that may lead to offending. The latter point also relates to specific responsivity in that
interventions need to take account of potential barriers to engagement, which for women may
include coming to terms with and understanding the effects of abuse histories and ongoing
ment health and substance use problems (Holtfreter & Wattanaporn, 2014; Saxena, Messina, & Grella, 2014). More generally for the responsivity principle, there is evidence from education research showing that men and women may have different learning styles, with women responding better to empathy, collaboration, and listening (Belenky, Clinchy, Goldberger, & Tarule, 1986; Severiens & ten Dam, 1994). Programs designed for men are not grounded in these principles, meaning there is also a mismatch between delivery and learning styles for women.

The positive treatment effect of a gender-neutral cognitive-behavioral intervention with women offenders reported by Spiropoulos et al. (2005) shows that cognitive skills programs are not necessarily unsuccessful with women. Their study included one gender-neutral program and one gender-responsive program, with some women participating in the gender-neutral one and others receiving both programs. Although there was no difference in the outcome between the two groups, Spiropoulos et al. (2005) comment that it might be more relevant to consider if certain types of cognitive programs work better than others for women. The mixed evidence with respect to antisocial attitudes being a criminogenic need for women offenders supports this suggestion and this issue warrants further investigation.

The completion rate of 16.01% was very low, and is about half the rates reported by Palmer et al. (2007) and Hollin et al. (2008) in evaluations of these programs with male offenders being delivered at the same time period. [More recent figures show that completion rates for these programs have increased considerably (Ministry of Justice, 2012b).] The lack of gender-responsivity of the programs may contribute to the low rate of completion. If the programs do not address offenders’ criminogenic needs or match their learning styles, it is likely to impact on their engagement with the program (Barnett, 2012). Interestingly, there were no significant differences between the completer and non-completer groups for age, risk of reoffending, and number of previous convictions. This is in contrast to
male offenders, with a recent meta-analysis showing non-completers typically to be younger, higher risk, and have a greater criminal history than completers (Olver, Stockdale, & Wormith, 2011). This suggests that non-completion among the women in this study is not associated with individual offender characteristics.

When considering non-completion, it is important to consider barriers to participation in programs. For women, there are a number of practical barriers that may impact on their ability to attend regular scheduled program sessions, some of which might be gender specific. As discussed by Ashley, Marsden, and Brady (2003) women tend to be custodial parents and may face problems arranging for childcare. In the face of competing priorities, attending a program session is often going to come at the ‘bottom of the list’ (Richie, 2001). Getting to the intervention session may also pose practical problems for women without their own transport who rely on public transport. If services are able to offer practical help with these problems (e.g., provision of on-site childcare, arrange for transportation) this may increase completion rates. Cultural barriers to participation in interventions are another responsivity consideration (Richie, 2001). The groupwork nature of these types of programs can require participants to disclose the sorts of information that makes women uncomfortable and group dynamics might differ between men and women. Further research on non-completion among women offenders is necessary to establish the reasons for dropout and to inform working with these women to increase engagement and retention in programs.

When interpreting the results from this research, there are a few points to bear in mind. There was not random allocation of offenders to a treatment and comparison group, although the ‘treatment received’ analysis of completers and non-completers would have ‘lost’ the randomization in any case. However, although randomized allocation to treatment versus comparison group is often seen as the gold standard for evaluation research, there are a number of practical problems in implementing this design in a criminal justice setting.
Furthermore, a number of authors have argued that a randomized design is not necessarily the best one for conducting evaluation research as it ignores the complexity of real world settings and does not allow for examination of naturally occurring groups such as completers and non-completers (Gondolf, 2001, 2004; Hollin, 2008). There are also a number of studies showing that high quality quasi-experimental designs, such as that employed in the current study, do not produce noticeably different results to those using a randomized design (Lipsey et al., 2001; Wilson et al., 2005).

Methodological limitations of the research include the disparity in group sizes for the 3 group analysis, with only 45 women completing the programs. Therefore, there is a possibility that the small completion rate was itself a reason for the lack of a treatment completion effect. However, a valid point is that the very low completion rate and lack of significant differences in reconviction outcome between the treatment and comparison groups provides evidence for the failure of the policy to offer these programs to women offenders. The small number of completers also meant it was not possible to examine the two programs individually, and so is something that should be examined in future research. It would also have been desirable to control for other dynamic risk factors, such as alcohol and drug use or mental health issues, but unfortunately such data were not available.

To conclude, this study adds to the scarce literature evaluating cognitive skills programs with women offenders. The reconviction rate for women who completed the programs was not significantly different from those of the comparison group or non-completers, suggesting that there is no effect of treatment completion. However, there were significantly poorer reconviction outcomes among non-completers compared to the comparison group – i.e. a non-completion effect. Furthermore, there was an extremely low rate of completion. These findings offer support to the argument that interventions for women offenders need to be gender-responsive, although in this study it was not clear
whether these programs ‘failed’ women in terms of their criminogenic needs, responsivity, or both.
References


Table 1. Descriptive Statistics for the Treatment and Comparison Groups (N = 801)

<table>
<thead>
<tr>
<th></th>
<th>Treatment</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>((n = 281))</td>
<td>((n = 520))</td>
</tr>
<tr>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>27.15 (7.25)</td>
<td>29.18 (9.07)</td>
</tr>
<tr>
<td>OGRS2 score</td>
<td>52.49 (22.72)</td>
<td>38.37 (25.34)</td>
</tr>
<tr>
<td>Precons(^a)</td>
<td>6.02 (5.33)</td>
<td>3.82 (5.67)</td>
</tr>
</tbody>
</table>

**Offense Type**

<table>
<thead>
<tr>
<th>Offense Type</th>
<th>n (%)</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burglary</td>
<td>10 (3.56)</td>
<td>15 (2.88)</td>
</tr>
<tr>
<td>Criminal damage</td>
<td>5 (1.78)</td>
<td>2 (2.31)</td>
</tr>
<tr>
<td>Fraud &amp; forgery</td>
<td>33 (11.74)</td>
<td>47 (9.04)</td>
</tr>
<tr>
<td>Motoring</td>
<td>1 (0.36)</td>
<td>1 (0.19)</td>
</tr>
<tr>
<td>Other</td>
<td>63 (22.42)</td>
<td>163 (31.35)</td>
</tr>
<tr>
<td>Sexual</td>
<td>1 (0.36)</td>
<td>9 (1.73)</td>
</tr>
<tr>
<td>Theft &amp; handling</td>
<td>155 (55.16)</td>
<td>227 (43.65)</td>
</tr>
<tr>
<td>Violent</td>
<td>13 (4.63)</td>
<td>46 (8.85)</td>
</tr>
</tbody>
</table>

\(^a\) Number of previous convictions
Table 2. Descriptive Statistics for the Three Groups (N = 801)

<table>
<thead>
<tr>
<th></th>
<th>Completers</th>
<th>Non-Completers</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 45)</td>
<td>(n = 236)</td>
<td>(n = 520)</td>
</tr>
<tr>
<td>Age (years)</td>
<td>27.56 (7.32)</td>
<td>27.08 (7.25)</td>
<td>29.18 (9.07)</td>
</tr>
<tr>
<td>OGRS2 score</td>
<td>46.02 (26.36)</td>
<td>53.73 (21.80)</td>
<td>38.37 (25.34)</td>
</tr>
<tr>
<td>Precons&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.93 (4.39)</td>
<td>6.23 (5.48)</td>
<td>3.82 (5.67)</td>
</tr>
<tr>
<td>Offense Type</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Burglary</td>
<td>1 (2.22)</td>
<td>9 (3.81)</td>
<td>15 (2.88)</td>
</tr>
<tr>
<td>Criminal damage</td>
<td>0 (0.00)</td>
<td>5 (2.12)</td>
<td>2 (2.31)</td>
</tr>
<tr>
<td>Fraud &amp; forgery</td>
<td>7 (15.56)</td>
<td>26 (11.02)</td>
<td>47 (9.04)</td>
</tr>
<tr>
<td>Motoring</td>
<td>0 (0.00)</td>
<td>1 (0.42)</td>
<td>1 (0.19)</td>
</tr>
<tr>
<td>Other</td>
<td>13 (28.89)</td>
<td>50 (21.19)</td>
<td>163 (31.35)</td>
</tr>
<tr>
<td>Sexual</td>
<td>0 (0.00)</td>
<td>1 (0.42)</td>
<td>9 (1.73)</td>
</tr>
<tr>
<td>Theft &amp; handling</td>
<td>20 (44.44)</td>
<td>135 (57.20)</td>
<td>227 (43.65)</td>
</tr>
<tr>
<td>Violent</td>
<td>4 (8.89)</td>
<td>9 (3.81)</td>
<td>46 (8.85)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Number of previous convictions
Table 3. Logistic Regression as Function of Age, OGRS2 Score, Previous Convictions, Offense, and Group: Reconviction within One Year

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE of B</th>
<th>Wald (z-ratio)</th>
<th>Exp (B)</th>
<th>95% CI for Exp (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.025</td>
<td>0.015</td>
<td>2.896</td>
<td>0.975</td>
<td>0.947 - 1.004</td>
</tr>
<tr>
<td>OGRS2</td>
<td>2.756</td>
<td>0.693</td>
<td>15.801***</td>
<td>15.734</td>
<td>4.043 - 61.228</td>
</tr>
<tr>
<td>Precons</td>
<td>0.027</td>
<td>0.027</td>
<td>1.004</td>
<td>1.028</td>
<td>0.974 - 1.084</td>
</tr>
<tr>
<td>Offense</td>
<td></td>
<td></td>
<td></td>
<td>12.628</td>
<td></td>
</tr>
<tr>
<td>Offense (1)</td>
<td>0.954</td>
<td>0.565</td>
<td>2.851</td>
<td>2.596</td>
<td>0.858 - 7.854</td>
</tr>
<tr>
<td>Offense (2)</td>
<td>0.162</td>
<td>0.660</td>
<td>0.060</td>
<td>1.176</td>
<td>0.322 - 4.291</td>
</tr>
<tr>
<td>Offense (3)</td>
<td>0.437</td>
<td>0.425</td>
<td>1.058</td>
<td>1.548</td>
<td>0.673 - 3.562</td>
</tr>
<tr>
<td>Offense (4)</td>
<td>0.354</td>
<td>1.685</td>
<td>0.044</td>
<td>1.425</td>
<td>0.052 - 38.719</td>
</tr>
<tr>
<td>Offense (5)</td>
<td>0.646</td>
<td>0.373</td>
<td>2.993</td>
<td>1.908</td>
<td>0.918 - 3.966</td>
</tr>
<tr>
<td>Offense (6)</td>
<td>1.626</td>
<td>0.742</td>
<td>4.800*</td>
<td>5.083</td>
<td>1.187 - 21.765</td>
</tr>
<tr>
<td>Offense (7)</td>
<td>0.961</td>
<td>0.366</td>
<td>6.888**</td>
<td>2.614</td>
<td>1.275 - 5.357</td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td>6.516*</td>
<td></td>
</tr>
<tr>
<td>Group (1)</td>
<td>-0.458</td>
<td>0.179</td>
<td>6.514*</td>
<td>0.633</td>
<td>0.445 - 0.899</td>
</tr>
<tr>
<td>Group (2)</td>
<td>-0.316</td>
<td>0.364</td>
<td>0.754</td>
<td>0.729</td>
<td>0.357 - 1.488</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-1.259</td>
<td>0.629</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.05 ** p < 0.01 *** p < 0.001
Figure 1. Survival analysis of time to reconviction within one year. The lines denote the survival curves of the three treatment groups (completers, non-completers and the comparison group).