Differences between Completers and Non-Completers of Offending Behaviour Programmes: Impulsivity, Social Problem Solving and Criminal Thinking

Abstract

Purpose: This study examined whether there were significant differences between completers and non-completers of an offending behaviour programme on pre-programme measures of impulsivity, social problem solving, and criminal thinking.

Methods: Participants were 299 male offenders serving a community order with the requirement to attend an offending behaviour programme in England and Wales.

Results: The results showed that non-completers had significantly higher levels of non-planning impulsivity than completers. Furthermore non-completers were at a higher risk of reconviction. No significant differences were found between completers and non-completers for social problem solving and criminal thinking, as well as no significant differences between the two groups for age.

Conclusions: The findings highlight the importance of retaining high risk and impulsive offenders in treatment programmes.

Differences between Completers and Non-Completers of Offending Behaviour Programmes: Impulsivity, Social Problem Solving and Criminal Thinking

The rehabilitation of offenders has been a heavily debated topic and there is now an extensive body of research that has examined 'What Works' with offenders in reducing reoffending (McGuire, 2010). Meta-analyses have identified the characteristics of effective interventions (Lipsey, Chapman, & Landenberger, 2001; Wilson, Bouffard, & MacKenzie, 2005) showing that programmes based on cognitive behavioural techniques and that adhere to the risk-need-responsivity (RNR) principles (Andrews, 2001) are effective in reducing recidivism. Programmes that follow these principles are those in which intensity of treatment is proportional to offenders' level of risk (risk principle), that target offenders' criminogenic needs (need principle) and are delivered in a style that matches offenders' learning styles and take account of factors such as gender, ethnicity, mental health, and cognitive ability (responsivity principle).

There is now a large body of research showing that cognitive behavioural programmes can bring about a significant reduction in reconviction outcomes (Lipsey, Landenberg, & Wilson, 2007; Wilson et al., 2005). However, more recently there has been a focus on the outcomes for those offenders who complete versus those who start but do not complete programmes. Treatment received (TR) analyses that compare completers, non-completers and Comparison groups provide robust evidence for both a *completion* effect (completers have significantly better outcomes than a comparison group) and a *non-completion* effect (non-completers have significantly poorer outcomes than completers and comparison groups) (Hollin et al., 2008; McGuire et al., 2008; Palmer et al., 2007; Van Voorhis, Spruance, Ritchey, Listwan, & Seabrook, 2004). Given that non-completion of programmes is associated with higher levels of reconviction there are obvious economic and non-financial consequences which make it a cause for concern.

The importance of addressing non-completion can be demonstrated by the level of non-completion. Research has consistently shown that non-completion is higher among community samples than in prisons. In North America non-completion rates of 40% have been reported among parolees (Van Voorhis et al., 2004) and 37.6% in prisons (Wormith & Olver, 2002). A similar picture emerges from England and Wales, with a non-completion rate of about 10% in programmes delivered in prisons (Cann, Falshaw, Nugent, & Friendship, 2003; Falshaw, Friendship, Travers, & Nugent, 2004; Friendship, Blud, Erikson, Travers, & Thornton, 2003). In contrast much higher rates of non-completion have been found in community settings in England and Wales, with studies reporting between 25% and 68% of offenders required to complete a programme as part of their sentence did not complete it (Hollin et al., 2008; Palmer et al., 2007). These figures are supported by Olver, Stockdale, and Wormith's (2011) meta-analysis in which they reported an overall non-completion rate of 27.1% (increasing to 35.8% when pre-programme dropouts were considered) with prison non-completion of 19.9% (31.0% with pre-programme dropouts) and community based programmes having a non-completion rate of 31.5% (39.3% including pre-programme dropouts).

Given the negative effect of non-completion on reconviction and the rate of non-completion (particularly in community settings) it is perhaps not surprising that there has been an increased interest in whether we can identify differences between completers and non-completers. A recent meta-analysis by Olver et al. (2011) investigated the characteristics of completers and non-completers across 114 studies involving 41,438 offenders. As well as being associated with a higher rate of recidivism, programme non-completion was significantly associated with ethnic minority status, single marital status, unemployment, younger age, a higher number of previous criminal offenses, high risk of reconviction, low levels of education, and low income. When the results were considered separately for

domestic violence programmes and sex offender programmes similar demographic and criminal history variables emerged as significant predictors of attrition.

While there is a consensus from a large number of studies on the differences between completers and non-completers on demographic and criminal history variables, it is less clear what the mechanisms are to explain these findings. One group of variables that might be relevant are social cognition variables. It is well established that certain social cognitive styles are commonly found among offenders, including impulsivity, poor social problem solving, and pro-criminal attitudes and beliefs (Antonowicz & Ross, 2005; Ross & Fabiano, 1985), and these findings have informed the development of interventions for offenders that target these social cognitive variables. It is possible that higher risk offenders have greater needs in these areas and so there may be potential areas of difference between completers and non-completers. The dearth of literature in this area is illustrated by the fact that in Olver et al.'s (2011) meta-analysis only 7 studies examined impulsivity and 10 studies measured criminal thinking/attitudes. From these limited number of studies Olver et al. (2011) concluded that higher levels of impulsivity were a predictor of dropout ($r_w = 0.13$) although the results for criminal attitudes/thinking were more equivocal with it only predicting dropout when outliers were included in the analysis ($r_w = 0.07$ with outliers; $r_w = 0.04$ without outliers).

Within the sparse literature, impulsivity is the most often examined social cognition variable. Although conducted with different samples non-completion has been found to be associated with higher levels of impulsivity among male prisoners, offenders in residential drug treatment and mentally disordered offenders (Berman, 2004; Cullen, Soria, Clarke, Dean, & Fahy, 2011; Lang & Belenko, 2000; McCarthy & Duggan, 2010). There has been mixed evidence on pro-criminal thinking and attitudes, with some studies reporting that non-completers have more pro-criminal attitudes than completers (Berman, 2004), whereas

Polaschek (2010) and Tapp, Fellowes, Wallis, Blud, and Moore (2009) found no difference in violent offenders and mentally disordered offenders respectively. Walters (2004) reported that criminal thinking styles were significant predictors of non-completion, although this study had a very small sample of non-completers (n = 16 out of a full sample of n = 207).

Poorer social problem solving skills were reported among non-completers in a mentally disordered population (McMurran, Huband, & Duggan, 2008; Tapp et al., 2009) among another study with a similar sample found no significant differences between the two groups on social problem solving (Yip et al., 2013). Just one study has examined levels of empathy, with violent offenders showing higher levels of empathy among completers (Polaschek, 2010). Finally Bowen and Gilchrist (2006) found no significant difference between completers and non-completers on locus of control among offenders participating in a domestic violence intervention.

If we are proposing that social cognition variables might differ between completers and non-completers it is important to consider why we might expect social cognition variables to be related to non-completion. High levels of impulsivity and poor social problem skills have been suggested to influence offenders' ability to cope with the groupwork format which many programmes use (Holdsworth, Bowen, Brown, & Howat, 2014; Yip et al., 2013). Furthermore, there is evidence that these two variables often co-exist and interact whereby high levels of impulsivity limit an individual's capacity to stop and think before deciding how to respond to a social problem situation (McMurran, et al., 2008). Holding pro-criminal beliefs and attitudes is likely to impact on offenders' engagement in a programme in terms of them 'buying in' to the concept of offending behaviour programmes.

As noted above given the potential impact of non-completion on reconviction rates it is important to identify those offenders who are more likely not to complete programmes. To date the research comparing completers and non-completers has primarily focused on

demographic and criminal history variables. The small number of studies that have examined social cognitive variables are limited by small samples and being conducted with specific offender populations. Therefore, this study aims to build on previous research by examining the differences between programme completers and non-completers on impulsivity, social problem solving, and criminal thinking styles, as well as age and risk of reconviction.

Method

Participants

The sample comprised 299 male offenders who were serving community sentences in the English and Welsh Probation Service with a requirement to attend a cognitive-behavioural general offending behaviour programme. Age at date of sentence ranged from 17 to 60 years, with a mean age of 27.75 (*SD* = 8.07). A range of offences had been committed including motoring offenses (35.1%), theft and handling stolen goods (24.7%), violence against the person (13.9%), burglary (8.7%), drug offenses (6%), fraud forgery (5.4%), other (3.3%), and criminal damage (2.7%). Sentence length ranged from 0 to 36 months, with a mean of 12.36 months (*SD* = 8.26).

Measures

Impulsivity was measured using the Barratt Impulsiveness Scale-11 (BIS-11; Patton, Stanford, & Barratt, 1995). The BIS-11 comprises 30 items that assess an individual's level of impulsiveness. It has three scales: cognitive impulsiveness (8 items) which is the extent to which an individual makes quick cognitive decisions; motor impulsiveness (11 items) which is the extent to which an individual acts without thinking; and non-planning impulsiveness (11 items), which is the extent to which an individual shows lack of concern for the future. Items are scored on a 4-point Likert scale, with high scores representing high impulsivity.

Social problem solving was measured using the Social Problem Solving Inventory-Revised (SPSI-R; D'Zurilla, Nezu, & Maydeu-Olivares, 2002). The SPSI-R comprises 52

items measuring two adaptive problem solving dimensions referred to as Positive Problem Orientation (5 items) and Rational Problem Solving (20 items), and three dysfunctional dimensions known as Negative Problem Orientation (10 items), Impulsivity-Carelessness Style (10 items) and Avoidance Style (7 items). Respondents complete the measure by reporting whether items are true of them on a 5-point Likert scale. High scores on the adaptive problem solving dimensions and low scores on the dysfunctional dimensions demonstrate a good level of social problem solving.

Criminal thinking was assessed using the Psychological Inventory of Criminal Thinking Scales (PICTS; Walters, 1995). The PICTS comprises 64 items that measure criminal attitudes on a 4-point Likert scale and measures thinking styles which are believed to be associated with criminality and anti-social behaviour. The eight thinking styles measured are cognitive indolence (CI), cutoff (CO), discontinuity (DS), entitlement (EN), mollification (MO), power orientation (PO), sentimentality (SN) and superoptimism (SO), all of which have eight items. High scores indicate attitudes supportive of criminal behaviour and low scores reflect more pro-social and realistic outlooks.

The measures used represent treatment targets of the programme.

Data Collection

Data were provided by Probation Areas in England and Wales. Risk of reconviction scores were calculated using the Offender Group Reconviction Scale-2 (OGRS-2, Taylor, 1999). The OGRS-2 is an actuarial risk assessment used in England and Wales to estimate the risk of reconviction within 2 years.

Results

Of the 299 offenders 218 (72.9%) completed the treatment and 81 (27.1%) started, but did not complete the programmes (non-completers). The descriptive statistics for the two groups are shown in Table 1. Univariate analyses showed that there was a significant

difference between completers and non-completers on OGRS-2 score t (297) = 2.06, p = .040, with non-completers having a higher level of risk of reconviction than completers. However, there was no significant difference between completers and non-completers for age t (297) = 1.52, p = .130 or index offence $\chi 2$ (8) = 15.33, p = .053. Risk of reconviction was controlled for in the analyses.

Impulsiveness

Table 2 shows the descriptive statistics by completion group for the scores on BIS-11. A one-way between-groups ANCOVA found that there was no significant difference between completers and non-completers for the BIS-11 total score F (1, 296) = 2.28, p = .132, η^2 = .008. As the BIS-11 subscales are closely related a MANCOVA was performed to explore the differences between completers and non-completers for the three BIS-11 subscales. There was a statistically significant difference between the groups on the BIS-11 subscales F (3, 294) = 2.69, p = .047, η^2 = .027. When considered separately using univariate ANOVAs, the only difference to reach statistical significance was non-planning impulsiveness F (1, 296) = 5.40, p = .021, η^2 = .018 with non-completers reporting higher levels of non-planning impulsiveness than the completers. However the effect size for both the MANCOVA and significant univariate result for non-planning impulsiveness was small.

Social Problem Solving

Descriptive statistics for completers and non-completers of the SPSI-R are shown in Table 3. A MANCOVA was performed to explore the differences between completers and non-completers for the five SPSI-R scales; this was not statistically significant F (5, 292) = 0.98, p = .433, η^2 = .016. As this was not significant no univariate analyses were conducted.

Criminal Thinking

Descriptive statistics for completers and non-completers on the PICTS are shown in Table 4. A MANCOVA was performed to explore the differences between completers and

non-completers for the eight PICTS scales; this was not statistically significant F (8, 289) = 0.92, p = .499, η^2 = .025. As this was not significant no univariate analyses were conducted.

The initial data analysis plan was to conduct a binomial logistic regression to examine the predictors of non-completion. However, given the lack of significant differences between the two groups this was deemed to be inappropriate.

Discussion

The negative impact on reconviction of non-completion of offending behaviour programmes is well documented (Hollin et al., 2008; McGuire et al., 2008; Palmer et al., 2007; Van Voorhis et al., 2004) and highlights the importance of being able to identify those offenders who are less likely to complete. Research to date has typically focused on demographic and criminal history variables that differ between completers and non-completers. This study set out to examine whether there were any pre-programme differences between completers and non-completers on age, risk of reoffending and the social cognition variables of impulsivity, social problem solving and criminal attitudes. Based on the existing literature it was expected that non-completers would be younger, have a higher risk of reconviction and higher levels of impulsivity. Based on the association between offending and criminal thinking and social problem-solving skills it might be anticipated that non-completers would show more criminal thinking and poorer social problem-solving. The current results partially support these expectations with non-completers having a higher risk of reconviction and higher levels of impulsivity.

The finding that non-completers had a significantly higher risk of reconviction is in line with a large body of research showing that high risk offenders are more likely to drop out of programmes (Olver et al., 2011). Further, it highlights that those offenders most in need of treatment to reduce their offending are those who are less likely to complete programmes. Non-completers were of a similar age to completers and although much of the previous

research has reported that non-completers tend to be younger than completers (Olver et al., 2011), it is by no means that this is the only study where no differences have been found for age (Cullen et al., 2011; Polaschek, 2010; Tapp et al., 2009).

Programme non-completers had significantly higher levels of non-planning impulsivity than completers, suggesting that non-completers show less regard to the future and do not consider long-term goals. This finding supports previous research with male prisoners (Berman, 2004), offenders in residential drug treatment (Lang & Belenko, 2000) and mentally disordered offenders (Cullen et al., 2011; McCarthy and Duggan, 2010). Therefore in relation to OBPs, offenders who score highly on this construct may not be considering the long term impact of their actions and as a consequence may not be thinking about the long term goal and future of completing a programme. In contrast non-significant results were found in relation to motor impulsivity, cognitive impulsivity and overall impulsivity scores.

There were no significant differences between completers and non-completers for social problem solving and criminal thinking. The evidence to date for these two variables is mixed with some studies showing differences in social problem-solving (McMurran et al., 2008; Tapp et al., 2009) and others showing no differences (Yip et al., 2013), although all three studies were with a mentally disordered sample limiting the generalisability of these findings. Similarly for criminal attitudes some research shows group differences (Berman, 2000; Walters, 2004), whilst other studies report no differences between completers and non-completers (Polaschek, 2010; Tapp et al., 2009). However, the range of samples used in these studies makes it difficult to draw any firm conclusions about these two variables.

In some ways the completers and non-completers were remarkably similar on the variables examined. One explanation could be that the non-completers sample is heterogeneous and it would be more informative to look at subsamples of non-completers. One such issue might be the reason for non-completion, for example expulsion from the

programme, committing another offence, breach of Probation Order, leaving of their own volition, or missing sessions due to external factors (e.g., transport issues, conflicting appointments). Polaschek (2010) found no differences on a range of demographic, risk and psychometric variables between violent offenders who dropped out of their own volition and those were expelled from the programme for misconduct. However this is one study and further research is warranted. The point during the programme that drop-out occurs might also be relevant – i.e. those offenders who drop out in the first few sessions might differ from those who get to half-way through the programme before dropping out. However, again there is little research examining this question. Unfortunately the data for the current study did not include information about reason for not completing the programme or the point at which offenders dropped out, and so these issues cannot be examined.

There are some methodological limitations that should be considered when interpreting the results of this study. These data were collected via self-report psychometric assessments, and may be susceptible to social desirability bias, although Polaschek (2010) notes that it is not as simple as assuming that offenders deliberately lie when completing these types of assessments (Mills & Kroner, 2005). There is also a lack of consistency between studies in how variables are measured, particularly with respect to impulsivity, which can make it hard to compare studies. However, interestingly impulsivity is the most consistent finding in the literature to date and the fact this holds across different samples and different measures suggests that this is a robust finding. Furthermore, the generalisability of the results is limited to male offenders serving community sentences.

The implications of this research are that prior to starting programmes pre-intervention techniques should look at working with offenders to address impulsivity with a view to encouraging them to engage with and maintain this engagement for the duration of programmes. In line with the acknowledged limitations, future research would benefit from

examining differences between completers and non-completers for different groups of offenders, such as women and those with different offence types, and for offenders receiving treatment in different settings. As noted earlier breaking down non-completers by reason for non-completion or duration of the programme completed may yield interesting results that help us understand more about the issue of non-completion and thus suggest techniques to try to prevent it happening.

To conclude this study supports previous research that impulsivity is associated with non-completion of programmes, although non-significant results were found for criminal thinking and social problem-solving. As such only tentative conclusions can be drawn from the results, but this study adds to the scarce literature on social cognitive variables and completion of programmes. Future research should develop the literature on programme completers and non-completers in order to establish reliable and valid demographic, social cognitive variables and personality trait differences of completers and non-completers. By getting a better understanding of the characteristics of non-completers procedures can start to be developed to engage them better and so increase the effectiveness of programmes and reduce reoffending.

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Table 1.

Descriptive Statistics for the Two Groups

	Completers (n = 218)	Non-Completers (n = 81)	*Group comparisons*
Age (years)	28.18[a] (8.30)[b]	26.59 (7.37)	t (297) = 1.52, p = .130
OGRS2 score*	58.43 (21.86)	64.16 (20.09)	t (297) = 2.06, p = .040
Offense Type			$\chi 2$ (8) = 15.33, p = .053
Burglary	14[c] (6.42)[d]	12 (14.81)	
Criminal damage	7 (3.21)	1 (1.23)	
Drug	13 (5.96)	5 (6.17)	
Fraud & forgery	7 (3.21)	9 (11.11)	
Motoring	82 (37.61)	23 (28.40)	
Other	8 (3.70)	2 (2.47)	
Theft & handling	57 (26.15)	17 (20.99)	
Violent	30 (13.76)	12 (14.81)	

[a] Mean; [b] Standard Deviation

[c] Number of offenders within each offense category; [d] Percentage within group

* Significant

Table 2.

Descriptive Statistics for BIS-II for the Two Groups

	Completers (n = 218)	Non-Completers (n = 81)	F df (1, 296)
Motor Impulsivity	21.51[a] (5.87)[b]	22.10 (5.21)	0.26, p = .610
Cognitive Impulsivity	24.59 (4.34)	24.84 (3.61)	0.01, p = .905
Non-planning Impulsivity*	25.65 (5.43)	27.47 (4.80)	5.40, p = .021
BIS Total Score	71.75 (10.75)	74.41 (9.75)	2.28, p = .132

[a] Mean

[b] Standard Deviation

* Significant

Table 3.

Descriptive Statistics for SPSI-R for the Two Groups

	Completers (n = 218)	Non-Completers (n = 81)	F *df (1, 296)*
Avoidance Style	13.23[a] (9.02)[b]	12.22 (6.28)	0.75, p = .388
Carelessness Style	11.86 (4.88)	12.12 (4.39)	0.43, p = .510
Negative Problem Orientation	12.92 (4.64)	12.59 (5.18)	0.14, p = .708
Positive Problem Orientation	11.44 (4.76)	10.49 (4.56)	1.75, p = .187
Rational Problem Solving	9.39 (4.79)	8.81 (4.13)	0.58, p = .446

[a] Mean

[b] Standard Deviation

Table 4.

Descriptive Statistics for PICTS for the Two Groups

	Completers (n = 218)	Non-Completers (n = 81)	F df (1, 296)
Cognitive Indolence	17.49[a] (4.87)[b]	17.86 (4.85)	0.05, p = .826
Cutoff	15.87 (5.29)	16.26 (5.52)	0.00, p = .966
Discontinuity	16.33 (5.11)	17.25 (4.48)	0.78, p = .378
Entitlement	11.55 (3.24)	12.42 (4.18)	2.09, p = .149
Mollification	13.65 (4.38)	14.14 (4.23)	0.35, p = .556
Power Orientation	12.17 (4.29)	12.04 (4.49)	0.27, p = .603
Sentimentality	16.31 (3.72)	16.84 (3.77)	0.59, p = .443
Superoptimism	14.17 (4.16)	14.68 (4.49)	0.11, p = .737

[a] Mean

[b] Standard Deviation