Can completers, non-completers, and non-starters of community based offending behaviour programs be differentiated by internal treatment readiness factors?

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Abstract

This research aimed to determine whether completers, non-completers, and non-starters of community based offending behaviour programs could be differentiated by their levels of internal 'treatment readiness' (Ward, Day, Howells & Birgden, 2004). The Corrections Victoria Treatment Readiness Questionnaire (CVTRQ: Casey, Day, Howells, & Ward, 2007) measures offenders' Attitudes and Motivation, Emotional Reactions, Offending Beliefs, and Efficacy which, according to the Multifactor Offender Readiness Model (MORM; Ward, et al., 2004), are internal dimensions of an offender's readiness to engage with treatment. Participants were offenders who had been court-mandated to attend a community-based cognitive skills offending behaviour program. There were no significant differences between groups in respect of the CVTRQ total score. After controlling for risk of reconviction, however, the Self Efficacy construct differentiated program non-starters from program completers, whilst the Emotional Reactions construct differentiated program non-completers from program completers. In conclusion, the CVTRQ failed to differentiate program completion groups with the same success as elsewhere (Casey et al., 2007).

Keywords: Offending behaviour programs, treatment readiness, attrition, program non-completion, community corrections.

Introduction

Within the National Probation Service of England and Wales nearly 8000 offenders were required to attend an accredited offending behaviour program as part of their sentence in 2016-17 (Ministry of Justice, 2017). Evidence from a substantial body of research demonstrates the effectiveness of completion of community-based cognitive skills programs on reconviction rates (Hatcher, McGuire, Bilby, Palmer, & Hollin, 2012; Hollin et al., 2008; van Voorhis, Spruance, Ritchy, Listwan, & Seabrook, 2004); however, the literature has also highlighted high levels of attrition from such programs (Hatcher et al., 2012; Hollin et al., 2008; Hollis, 2007; Palmer et al., 2007; van Voorhis, et al., 2004) and the associated poor outcomes of those who do not complete (Hatcher et al., 2008; McMurren & Theodosi, 2007; Palmer et al., 2007).

Attrition, defined as the failure to commence and/or complete the program to which an individual is referred, is not a new problem. In the UK, Cann, Falshaw, Nugent & Friendship (2003) reported a total rate of cognitive skills program non-completion of 11% across their prison sample, whilst in community settings, Hollin et al (2008) reported that nearly half of those sentenced to a program failed to commence and a further quarter commenced but failed to complete. Olver, Stockdale and Wormith's (2011) meta-analysis of attrition reported an overall attrition rate (including pre-program attrition) of 35.8%, with in-treatment dropout at 27.1%. These figures rose, however, when considering community programs only (39.3% and 31.5% respectively).

In a clinical sense, the concern regarding attrition from programs is obvious; those individuals who meet the criteria, and hence are identified as having a need for intervention, fail to benefit from the intervention. Considered in this context, attrition thus results in a violation of the risk and need principles (Andrews & Bonta, 2010) and hence

maximal treatment gains cannot be obtained. However, the picture may not be this simplistic. McMurrin and Theodosi's (2007) meta-analysis concluded that whilst completion of programs was seen to be effective in reducing reoffending ($d = 0.11$), non-completion was found to be associated with *elevated* levels of reoffending ($d = -0.16$) with community samples performing worse than prison samples ($d = -0.23$ and -0.15 respectively). Similar results were reported by Hollin et al. (2008) in their large-scale study of community based general offending behaviour programs. Program non-completers were twice as likely and non-starters more than twice as likely as the no treatment comparison group to be reconvicted, even after controlling for any differences between the groups in terms of age, risk of reconviction, offence type, number of previous convictions, and follow up time. Comparable results have also been reported in North American evaluative research (e.g. van Voorhis et al., 2004) and when utilising matched comparison groups rather than statistical control (e.g. Hatcher et al., 2008).

Empirical evidence for the reasons for the 'non-completion effect' is currently lacking and warrants further investigation. One possible explanation is that iatrogenic effects result from program dropout which may act to increase the risk of further offending. Such effects could include resulting emotional distress (either from the process of dropout itself or from the interruption to a therapeutic process at a disadvantageous point) or increases in anti-authority and antisocial attitudes (McMurrin & Theodosi, 2007; Olver, Stockdale, & Wormith, 2011). Any impact seen here is, of course, likely to depend on the reason(s) why the individual failed to complete the program. Further research is necessary to unpick such reasons and their potential impact on subsequent outcomes. An alternative explanation of the non-completion effect is that the existence of unmeasured pre-treatment differences between the non-completer and comparison groups influence both program attendance

and reconviction outcomes. One such factor may be how ready the individual is to engage with, and hence benefit from, the intervention offered.

Proposed by Howells and colleagues (e.g. Howells & Day, 2003; Ward et al., 2004), *treatment readiness* is a concept which the authors claim is crucial to program engagement, and presumably therefore, attendance. Treatment readiness is defined as “as the presence of characteristics (states or dispositions) within either the client or the therapeutic situation, which are likely to promote engagement in therapy and that, thereby, are likely to enhance therapeutic change...” (Ward et al., 2004, p. 647). As such, the concept is broadly conceptualised; treatment readiness is concerned with the interaction between the offender, the intervention, and the organisational or contextual factors relating to the offenders and the intervention.

The concept of treatment readiness has been incorporated into the Multifactor Offender Readiness Model (MORM) by Ward et al. (2004). The MORM highlights dimensions relating to the offender – cognitive, behavioural, volitional, and personal/social identity factors – in addition to the context – circumstances, location, opportunities, resources, support, and program/timing factors – which combine to produce the level of treatment readiness. The authors argue that “it is likely that offenders with low readiness across multiple areas will be those that either do not complete treatment” (Ward et al., 2004, p. 668). This paper seeks to test this argument through the evaluation of the pre-program treatment readiness of community-based program non-starters, non-completers, and completers.

To assess those offenders who may be lacking in treatment readiness, Casey et al. (2007) have developed the Corrections Victoria Treatment Readiness Questionnaire (CVTRQ) which is based on the MORM and measures four internal components of treatment

readiness: Attitudes and Motivation, Emotional Reactions (to their own offending behaviour), Offending Beliefs, and Efficacy (or their perceived ability to engage). As the tool is limited to the assessment of internal offender characteristics, the authors' state that it "does not seek to evaluate the MORM but rather those aspects of the model that might be reliably assessed...to inform professional assessments of readiness in a way that is both cost- and time-effective and might be particularly valuable in the routine assessment of suitability for programs" (Casey et al., 2007, p. 1428). The developers state that the CVTRQ displays high levels of discriminant and convergent validity and has been found to predict offender treatment engagement and performance, giving evidence of predictive validity. As such, the CVTRQ has been endorsed by Casey et al. as a tool that can "play a valuable role in the assessment of offenders who are being considered for rehabilitative treatment" (p. 1427). Such assessment prior to treatment aims to improve the selection process through the reduction of inappropriate referrals and inform the allocation of resources to enhance low treatment readiness prior to program commencement (Burrows & Needs, 2009; Casey et al., 2005; Day et al., 2010).

The aim of this paper therefore is to evaluate the pre-program treatment readiness of subsequent program non-starters, non-completers, and completers of a community-based program attrition within England and Wales. The research aims to determine whether those who fail to start or dropout from their allocated program could have been identified, and hence targeted for work to enhance their treatment readiness, at the pre-program stage through their CVTRQ scores. It is hypothesised that: (1) there will be significant differences between the completion groups in their levels of internal treatment readiness measured by the CVTRQ; completers will score higher than both non-completers and non-

starters, and (2) it will be possible to predict program completion group (completer, non-completer, non-starter) from their CVTRQ internal readiness factors.

Methodology

Design

This study aims to investigate the treatment readiness of program completers, non-completers, and non-starters of community-based court-sanctioned offending behaviour programs. As such, data were collected from offenders prior to their commencement on the program to which they had been referred to by the courts. Information on the offenders' risk of reconviction was also collected and statistically controlled for where appropriate.

Participants

All participants were offenders sentenced by the courts to a community order which contained a requirement to attend one of seven community-based offending behaviour programs delivered within one Probation Area in England and Wales. As such, all participants were deemed by the Probation Service to meet the entry criteria for the program to which they were sentenced. The programs included in the study were the Controlling Anger and Learning to Manage it program (CALM), the Drink Impaired Drivers program (DID), the Enhanced Thinking Skills program (ETS), the Women's Acquisitive Crime program (WAP), the Offender Substance Use program (OSAP), the Cognitive Skills Booster program (CSB), and the Low Intensity Alcohol Module (LIAM). All programs have been accredited by the Correctional Services Accreditation Panel and hence conform to the principles of effective program design (McGuire, 2004).

Data were collected from 68 offenders convicted of a diverse set of offences. These were categorised using the England and Wales Home Office offence category coding scheme

(see Smith & Hoare, 2009) into violence against the person (42.6%), robbery (1.5%), burglary (1.5%), offences against vehicles (2.9%), other theft offences (10.3%), fraud and forgery (2.9%), criminal damage (1.5%), drug offences (2.9%), and other miscellaneous offences (33.8%). The mean age was 28.07 years (standard deviation [SD] = 7.77) with a range from 19 to 55 and their gender was predominantly male (67 male, 1 female). Participants had mean OGRS-3 risk of reconviction scores (Howard, Francis, Soothill, & Humphreys, 2009) of 62.78 (SD= 19.56) with a range from 11 to 92 (see below for more information on OGRS-3).

Of the 68 participants, 31 (45.6%) completed the program, 16 (23.5%) commenced but did not complete the program, and 21 (30.9%) failed to commence the program to which they were sentenced.

Materials

Corrections Victoria Treatment Readiness Questionnaire (Casey et al., 2007): The CVTRQ measures the internal characteristics of treatment readiness and has been developed in line with the Multifactor Offender Readiness Model (Ward et al, 2004) which proposes the contribution of both internal and external factors to treatment engagement.

The questionnaire comprises 20 questions which measure the four constructs of Attitudes and Motivation (6 items, $\alpha = .84$), Emotional Reactions (6 items, $\alpha = .79$), Offending beliefs (4 items, $\alpha = .73$) and Efficacy (4 items, $\alpha = .60$) (Casey et al, 2007). Attitudes and Motivation refers to the offender's attitudes and beliefs about programs and a desire to change (e.g. "treatment programs are rubbish" and "I want to change") whilst the Emotional Reactions variable measures emotional responses to their own offending behaviour (e.g. "when I think about my last offence I feel angry with myself" and "I feel guilty about my offending"). Offending beliefs measures the individual's beliefs about personal responsibility for offending (e.g. "I am to blame for my offending" and "when I

think about my sentence I feel angry with other people”) and Efficacy refers to the individual’s perceived ability to participate in programs (e.g. “I am well organised”).

Self-reported responses are made on a 5-point Likert Scale which ranges from 1 (strongly disagree) to 5 (strongly agree). The maximum score for the constructs of Attitudes and Motivation and Emotional Reactions is 30 and the minimum score is 6. The Offending Beliefs and Efficacy have a maximum score of 20 and a minimum score of 4. A total internal readiness score is generated by summing the four construct scores. High scores on the total and subscale scores represent high treatment readiness. Casey et al (2007) have proposed, based on ROC curve analysis, that total scores of 72 or over may indicate a readiness for treatment (see Casey et al for more information).

Offender Group Reconviction Score-3 (OGRS-3; Howard, Francis, Soothill, & Humphreys, 2009): OGRS-3 is a predictor of reconviction which is calculated utilising six static factors relating to age, gender, and criminal history. The tool provides a risk of reconviction score ranging from 0-100. The higher the score obtained on the measure, the higher the risk of reconviction. The OGRS-3 tool has been shown to be an effective predictor of proven re-offending; it has an AUC of 80% for all offenders and 84% for prisoners only (Howard, Francis, Soothill, & Humphreys, 2009).

Case Recording and Management System (CRAMS): The Probation Area’s CRAMS database was used to retrieve file information held on the participants. The data collected from this system were the participants’ date of birth (from which their age was calculated), their OGRS-3 score, the program to which they had been sentenced, and their index offence.

Procedure

Permission to undertake the research was gained from the Probation Area participating in the study and ethical approval was received from the University of Leicester's Psychology Research Ethics Committee.

All participants who attended their routine Programme Induction Meeting with a member of the Probation Area's Programmes Team during the study period were invited to take part in the research. The Induction Meeting occurs after sentencing but prior to the offender being referred to a particular delivery of the program. At the meeting, informed consent was sought from potential participants. It was made clear that participation was not a compulsory part of their probation order and taking part, or indeed declining to take part, would not hold any consequences for progression on their sentence. The consent form outlined the confidential nature of the research and explained that their CVTRQ questionnaire data would be anonymised once it was matched with their file data (see below) and hard copies of the questionnaires would be destroyed. If any of the participants had literacy problems, the questionnaire was read to them by the Programme Team member of staff. Once the CVTRQ had been completed, participants were debriefed and provided with a debrief sheet which outlined the research aims and provided contact details of appropriate support should it be required.

The additional data were collected from the CRAMS database. The data retrieved from this database are described above. At the end of the study period, CRAMS was used to identify whether the offender had completed or dropped out of the program. Those offenders who had failed to attend any sessions of the program were categorised as a 'non-starter', those who commenced but failed to complete the program were categorised as a 'non-completer', and those who completed the program were categorised as a 'completer'.

Analysis Strategy

Initially, the program completers, non-completers, and non-starters were compared in respect of their age, risk of reconviction, and index offence. Previous research has indicated that program completers are likely to be younger (Hollin et al., 2008; Nunes & Cortoni, 2006a; Palmer et al., 2008; Palmer et al., 2009; Robinson, 1995; Turner, 2006; van Voorhis et al., 2004; Zanis et al., 2003) and lower risk than program dropouts (Browne, Foreman, & Middleton, 1998; Craissati & Beech, 2001; Hollin et al, 2008; Nunes & Cortoni, 2006b; Palmer et al., 2008; Palmer et al., 2009; Turner, 2006; Wormith & Olver, 2002). One-way ANOVAs (or non-parametric equivalents where parametric assumptions were violated) were undertaken to determine whether these findings were replicated within this sample.

The analysis then used a one-way ANOVA and a MANOVA to assess whether the program completion groups differed in respect of the CVTRQ total and construct scores respectively, before progressing to determine whether CVTRQ total and construct scores were predictive of program completion/attrition. Given that the aim was to ascertain whether CVTRQ scores add anything to the prediction of attrition, over and above the information already used by services to select offenders for programmes, where differences between the groups were identified in respect of age, risk, or index offence, these variables were entered into the regression model to control for the influence that they have on the outcome. Two multinomial logistic regressions were undertaken with the completion status variable (completer, non-completer, non-starter) comprising the outcome variable; the first utilised the CVTRQ total score and the second the CVTRQ construct scores as predictors. The total score and construct scores were not entered into the same model due to the assumption of independence.

Results

Univariate analyses

Table 1 presents the mean ages and OGRS3 scores by group (completer, non-completer, non-starter). Kolmogorov-Smirnov tests indicated no violations of the normality assumption and the Levene's test also indicated no violations of the assumption of homogeneity of variances for either age or OGRS3.

Insert table 1 here

As such, two one-way ANOVAs were undertaken. No significant differences were observed between the groups in respect of their ages [$F(2, 65) = 1.056, p = 0.354, \eta^2 = 0.03$]. However, the groups did differ in respect of their OGRS3 risk of reconviction scores [$F(2, 65) = 4.757, p = 0.012, \eta^2 = 0.12$]. Post-hoc Scheffe tests indicated significant differences between the non-starters and completers ($p = 0.014$) with non-starters being at a higher risk of reconviction than the completers.

Analysis of CVTRQ

The internal consistency of the CVTRQ with the current sample was found to be good (Cronbach's alpha: $\alpha = 0.821$). The intercorrelations between the total and construct scores are presented in table 2. As expected, the constructs are all positively and significantly correlated.

Insert table 2 here

Table 3 presents the mean CVTRQ scores by completer, non-completer, and non-starter groups. Again, Kolmogorov-Smirnov tests indicated that there were no violations of the normality assumption and the homogeneity of variance assumption was also met for

each of the variables. As such, a one way ANOVA was undertaken with the CVTRQ total score as the dependent variable in addition to a MANOVA with the construct scores comprising the dependent variables. In both analyses the independent variable was 'completion group' (completer, non-completer, non-starter). In respect of the MANOVA, the assumption of homoscedasticity was met and hence the MANOVA was progressed.

Insert table 3 here

The ANOVA incorporating the CVTRQ total score did not detect any significant differences between the groups: $[F(2, 55) = 0.338, p = 0.715, \eta^2 = 0.01]$. However, the MANOVA returned a significant difference between the groups in respect of the multivariate combination of the four construct variables $[F(8, 104) = 2.249, p = 0.029, \eta^2 = 0.15]$ using Wilks' Lambda. Assessment of the univariate analyses determined that the only construct score to differ significantly between the groups was the Efficacy variable: $[F(2, 55) = 3.624, p = 0.033, \eta^2 = 0.12]$. Post-hoc Scheffe tests indicated significant differences between the non-starters' and completers' Efficacy scores with non-starters scoring lower on this construct than the completers. All other univariate differences were non-significant: Attitudes and Motivation $[F(2, 55) = 1.539, p = 0.224, \eta^2 = 0.05]$, Emotional Reactions $[F(2, 55) = 0.430, p = 0.653, \eta^2 = 0.02]$ and Offending Beliefs $[F(2, 55) = 0.190, p = 0.190, \eta^2 = 0.06]$.

Multinomial logistic regression

Two multinomial logistic regression analyses were performed to determine whether it was possible to predict completion group from the CVTRQ variables. The first analysis was undertaken with the CVTRQ total score whilst the second utilised the CVTRQ construct

scores. Within both analyses the OGRS3 risk of reconviction variable was entered into the model to control for differences observed between the completion groups.

The analysis containing the OGRS3 and CVTRQ total score variables produced a model which represented a good fit of the data, $\chi^2 (110, N = 68) = 116.183, p = 0.325$, using a deviance criterion. Comparisons of the log-likelihood ratios for models with and without predictors, however, showed a non-significant improvement with the addition of the predictors ($\chi^2 (4, N = 68) = 7.836, p = 0.098$). Correct classification rates were 84.6% for the Completers, 6.7% for the Non-completers condition, and 35.3% for the Non-starters condition. The overall correct classification was 50%, which represents an increase of 16.67% over by-chance accuracy. Analysis of the contribution of individual predictors to the model with and without each predictor revealed that the OGRS3 variable significantly predicted the outcome ($\chi^2 (2, N = 68) = 7.144, p = 0.028$) but the CVTRQ variable did not ($\chi^2 (2, N = 68) = 0.603, p = 0.740$). Table 4 displays the odds ratios and beta values.

Insert table 4 here

The second multinomial logistic regression utilised the CVTRQ construct scores as predictors alongside the OGRS3 control variable to predict completion group (completer, non-completer, non-starter). This analysis also produced a model which represented a good fit of the data, $\chi^2 (104, N = 68) = 99.576, p = 0.604$, using a deviance criterion. Comparisons of the log-likelihood ratios for models with and without predictors showed a reliable improvement with the addition of the predictors ($\chi^2 (10, N = 68) = 24.444, p = 0.007$). Correct classification rates were 73.1% for the Completers, 40.0% for the Non-completers condition, and 58.8% for the Non-starters condition. The overall correct classification was

60.3%, which represents an increase of 26.97% over by-chance accuracy. Analysis of the contribution of individual predictors to the model with and without each predictor revealed that the OGRS3 ($\chi^2 (2, N = 68) = 6.121, p = 0.047$) and Efficacy ($\chi^2 (2, N = 68) = 7.312, p = 0.026$) variables significantly predicted the outcome. The other variables entered into the model did not significantly predict the outcome: Attitudes and Motivation ($2, N = 68 = 3.801, p = 0.150$), Emotional Reactions ($2, N = 68 = 5.313, p = 0.070$), Offending Beliefs ($2, N = 68 = 2.021, p = 0.364$). However, the Emotional Reactions variable did significantly differentiate the Completers from the Non-completers. Table 5 presents the odds ratios and beta values.

Insert Table 5 here

Analysis of the odds ratios indicates that with each unit increase in Efficacy scores the odds of being in the non-starter group compared to the completer group decrease by 30% ($p = 0.013$). Additionally, with each unit increase in Emotional Reaction scores the odds of being in the non-completers group compared to the completer group increase by 16% ($p = 0.040$).

Discussion

This study builds on the research of Casey et al. (2007) who assessed the utility of the Corrections Victoria Treatment Readiness Questionnaire in predicting offender treatment engagement and performance. This research aimed to determine whether the CVTRQ can be utilised to predict which offenders would fail to complete their court-sanctioned community-based cognitive skills program.

The sample, taken from one probation area in England and Wales covering seven cognitive skills programs, consisted of 45.6% program completers, 23.5% program non-completers, and 30.9% program non-starters. This rate of program dropout is similar to the community-based figures reported by Hatcher from 2005/6 (2009: 43%, 15.4%, and 41.6% respectively) and represents an improvement on those reported by Hollin et al. from 2001/2 (2008: 28.2%, 23.3, and 48.5% respectively). It is likely that improvements in program implementation and offender engagement practices over time are responsible for these changes (although these are merely hypotheses). When compared to the meta-analytical findings from community samples (Olver et al., 2011), the current sample featured lower rates of in-program attrition (23.5% vs. 31.5%) but higher rates of pre-program dropout (30.9% vs. 7.8%). Whether this disparity is due to sample variation (for example, the meta-analysis included offenders referred to sex offender programs which are not represented within the present paper) or procedural/offender processing differences would be interesting to explore in subsequent research.

In line with the extant literature (e.g. Hatcher, 2009; Hatcher et al., 2012; McMurrin & Theodosi, 2007) program non-starters presented with higher risk of reconviction scores than program completers (although no such difference was seen between completers and non-completers). This finding presents an ongoing conundrum for correctional service providers; the offenders who, according to the principles of risk and need (Andrews & Bonta, 2010), display the greatest necessity for programming and require the largest doses of intervention are most difficult to engage and are most likely to fail to commence interventions. There are indications within the literature, however, that if these individuals are successful in completing their interventions then the gains are significant (Hatcher,

2009; Palmer et al., 2008, 2009). More investigation is required to determine how services can increase levels of intervention completion amongst high risk offenders.

In assessing the utility of the CVTRQ scores in predicting attrition, the scale's total score did not fare well: the three groups' total scores were remarkably similar (ranging from 74.4 to 77.5) and, even after controlling for differences in risk, this variable did not predict group membership (completer, non-completer, non-starter). Such a finding, in isolation at least, would suggest that internal treatment readiness factors (as measured by the CVTRQ at least) are not associated with program attrition. Further examination of the findings suggests, however, that such a picture is not completely accurate; differences between the groups emerged on examination of the individual treatment readiness construct scores. The largest difference – that relating to the Efficacy variable – provided evidence that program completers had more pre-program confidence in their ability to participate in the program than those who subsequently failed to commence the program. The factors that may influence offenders' perceptions of efficacy in relation to program completion are not clear from this research and would benefit from further investigation. It could be possible, however, that services could increase completion rates through the removal of obstacles from the paths of those offenders whose report low efficacy in relation to program participation.

An alternative interpretation could be drawn in relation to this finding, however. The CVTRQ was completed by all offenders on their induction to the Programmes Unit. It is possible that some offenders, having received their sentence and spoken within their Offender Manager (and others) about the program to which they have been sentenced, decided prior to completion of the CVTRQ that they did not wish to participate in the available intervention. As such, rather than reflecting a reduced sense of self-confidence,

the non-starters' Efficacy scores could merely reflect their decision that they would not be engaging with the program. Whilst the distinction between these two explanations may be subtle, the practical response required from practitioners should vary: whilst the former may indicate the necessity for self-efficacy enhancing work to build confidence and encourage the offenders' beliefs in their own abilities, the latter would require work which stressed the potential benefits of the program.

Inspection of the scores obtained on the Attitude and Motivation variable may aid in decision making here; those offenders who do not see the potential benefits of engaging with an intervention, and have therefore decided at the pre-program stage that they will not participate, are likely to score lower on this variable. Contrary to the alternative position, however, the non-starters did not return significantly lower scores to the program non-completers or completers on this variable, perhaps indicating that the issue here is not one of conscious disengagement or negative perceptions of the benefits of the program but is instead low self-efficacy on the part of the offender. Such low confidence in their own ability to engage with the intervention may stem from previous negative experiences in similar environments, such as educational or vocational environments; indeed, a qualitative investigation of offenders' pre-program expectations revealed a concern that the program environment would resemble previous educational experiences and that this would be a barrier to engagement with the program (Hatcher, in preparation).

Whereas failure to *start* the program seems to be related to the self-efficacy construct, there is some indication that failure to *complete* the program may be linked to the offenders' management of emotional responses relating to their own criminal histories. The Emotional Reactions variable differentiated the program completers and non-completers (after controlling for differences in risk levels). Non-completers reported feeling

more ashamed, guilty, angry, and upset about their offending histories and their status as an offender than program completers. Given that most in-program dropout occurs within the early stages of the program (Hatcher, McGuire, Palmer, & Hollin, 2011), this finding would suggest the need for pre-program work focussing on the offenders' cognitive appraisals of their offending behaviour prior to their referral to their allocated cognitive skills program. Such work would benefit from monitoring and evaluation to determine its impact on reducing within-treatment attrition.

The aim of this paper was to determine whether it was possible to use the CVTRQ to differentiate program completers from program dropouts from community-based offending behaviour programs. Whilst interesting observations have been made concerning two of the construct variables (Efficacy and Emotional Reactions) and their associations with pre-program and within-program dropout, the CVTRQ failed to predict program attendance/dropout with the same success reported when predicting treatment engagement (Casey et al., 2007). In evaluating these findings, the small sample size and resulting lack of power mean that any conclusions should be considered tentative, however, one possible interpretation of the findings is that the scale does not generalise from its original sample to the present one. It is also possible that the CVTRQ predicts engagement with the program contents (i.e. identifying those who will gain most from their participation in the program) but is less useful in identifying those at risk of failing to commence of completion interventions.

Another explanation is that the focus of the CVTRQ is too narrow to provide a useful measure of treatment readiness. The MORM is clear that treatment readiness is a function of dimensions relating both to the offender (cognitive, behavioural, volitional, and personal/social identity factors) and to the context (circumstances, location, opportunities,

resources, support, and program/timing factors) and research into the offender perspectives of treatment engagement support this contention (Sturgess, Woodhams, & Tonkin, 2016). Unfortunately, the CVTRQ neglects to measure contextual factors and, despite professing to measure the internal component of readiness, the contribution of volitional and personal/social identity factors are also missing from the tool. As such, the extent to which this tool measures the concept of treatment readiness, or even internal treatment readiness, as outlined by the MORM, must be questioned.

Research assessing the role of contextual or process factors in program engagement and attrition, both directly and through their interaction with individual factors, certainly requires further attention. Research has shown that the inappropriate allocation of individuals to programs, determined through an incongruence between program selection criteria and the individuals' risk profiles, impacts on both attrition and reconviction outcomes (e.g. Hatcher et al., 2009; Palmer et al., 2008; Palmer, et al., 2009). Further, there are indications that factors such as waiting time from court order to program commencement (Turner, 2006), levels of staff support and encouragement (Mason & Adler, 2012), and pre-program motivational work (e.g. McMurrin, 2009) also influence attrition rates from correctional treatment programs. In trying to reduce attrition rates, it is thus incumbent on service providers to not only consider internal readiness factors, but also how organisational and process factors might, either directly or through interaction with individual factors, work to undermine treatment readiness.

The proponents of the MORM are clear in their opinion as to how intervention services should use information relating to the prediction of treatment readiness. Rather than use indications of treatment readiness as selection tools for deciding who should and

should not receive treatment, Day and colleagues, conceptualise treatment readiness as adaptable and hence the responsibility of the service provider to manipulate:

the primary responsibility for modifying low levels of readiness lies with the practitioner and the service in which s/he works. In other words, it becomes the treatment provider's duty to find ways to deliver interventions that meet the individual's needs, and discourages the tendency to view low levels of motivation or compliance as pathological (Day, Howells, Casey, Ward, & Birgden, 2007, p. 22).

Hence, when working with offenders who are resistant to treatment, the authors have proposed that the indications of treatment readiness provided by tools such as the CVTRQ should "serve as...heuristic model(s) for clinical decision making" (Ward et al., 2004, p. 665-666). These decisions may involve modifying the client, the treatment program, or the setting in order to increase readiness and hence offender engagement (Beyko & Wong, 2005). This perspective, of course, concurs with the responsivity component of the Risk-Needs-Responsivity model (Andrews & Bonta, 2010; Andrews, Bonta & Wormith, 2011) which suggests that successful interventions are those which match the style and mode of intervention to the offenders' abilities and learning styles.

While the authors of this paper concur wholeheartedly with this view, such tools need to demonstrate their utility with respect to predicting treatment engagement/readiness/completion before they can be used to guide the allocation of resources in the manner described. At present, it cannot be concluded that this is the case with respect to the CVTRQ. While Casey and colleagues have provided evidence of the utility of this tool within one context, this paper concludes that the CVTRQ has not usefully

differentiated program completers, non-completers, and non-starters of a community based cognitive skills program for offenders.

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Table 1: Age and OGRS3 scores by group (completer, non-completer, non-starter)

	Completers (N = 31)	Non-completers (N = 16)	Non-starters (N = 21)
Age	29.48 ^a (8.18) ^b	26.19 (8.80)	27.43 (6.13)
OGRS-3 score	55.58 (21.15)	65.44 (16.88)	71.38 (15.29)
^a Mean	^b Standard deviation		

Table 2: CVTRQ total and construct intercorrelations

	Total CVTRQ	Attitudes and motivation	Emotional reactions	Offending beliefs	Efficacy
Total CVTRQ	-	0.795**	0.784**	0.695**	0.584**
Attitudes and motivation		-	0.450**	0.521**	0.350**
Emotional reactions			-	0.327**	0.272*
Offending beliefs				-	0.302*
Efficacy					-

* p<.05, ** p<.01

Table 3: CVTRQ total and construct scores by group (completers, non-completers, and non-starters).

	Completers	Non-completers	Non-starters
Total score	77.50 ^a (11.78) ^b	74.40 (8.92)	77.00 (14.27)
Attitudes and Motivation	24.66 (3.43)	22.94 (3.04)	25.42 (4.80)
Emotional Reactions	21.84 (6.51)	23.20 (4.40)	22.17 (4.94)
Offending Beliefs	15.93 (3.42)	14.31 (3.20)	16.25 (3.23)
Efficacy	15.00 (3.19)	13.63 (3.12)	12.90 (2.45)
^a Mean ^b Standard deviation			

Table 4: Multinomial logistic regression of programme completion as a function of OGRS3, and CVTRQ total score.

		B	SE of B	Wald	Exp (B)	95% CI for Exp (B)
Non-starters vs. Completers (ref)	Intercept	-4.122	2.765	2.222		
	OGRS3	0.052	0.022	5.682*	1.053	1.009 – 1.099
	CVTRQ Total	0.005	0.028	0.026	1.005	0.950 – 1.062
Non-completers vs. Completers (ref)	Intercept	-0.585	2.644	0.049		
	OGRS3	0.022	0.019	1.338	1.023	0.985 – 1.062
	CVTRQ Total	-0.017	0.029	0.365	0.983	0.929 – 1.062
Non-completers vs. Non-starters (ref)	Intercept	3.537	2.940	1.448		
	OGRS3	-0.030	0.024	1.586	0.971	0.927 – 1.017
	CVTRQ Total	-0.022	0.030	0.537	0.978	0.923 – 1.037

* p < 0.05

Table 5: Multinomial logistic regression of programme completion as a function of OGRS3, and CVTRQ construct scores.

		B	SE of B	Wald	Exp (B)	95% CI for Exp (B)
Non-starters vs. Completers (ref)	Intercept	-4.052	3.172	1.632		
	OGRS3	0.052	0.024	4.572*	1.054	1.004 – 1.105
	Attitudes and Motivation	0.183	0.122	2.271	1.201	0.946 – 1.525
	Emotional Reactions	0.031	0.075	0.169	1.031	0.890 – 1.195
	Offending Beliefs	0.000	0.127	0.000	1.000	0.780 – 1.282
	Efficacy	-0.353	0.143	6.119*	0.702	0.531 – 0.929
Non-completers vs. Completers (ref)	Intercept	-0.240	3.036	0.006		
	OGRS3	0.032	0.220	2.106	1.032	0.989 – 1.077
	Attitudes and Motivation	-0.047	0.114	0.174	0.954	0.763 – 1.192
	Emotional Reactions	0.175	0.085	4.205*	1.191	1.008 – 1.408
	Offending Beliefs	-0.169	0.123	1.873	0.845	0.663 – 1.076
	Efficacy	-0.167	0.136	1.516	0.846	0.649 – 1.104
Non-completers vs.	Intercept	3.812	3.247	1.378		

Running Head: ATTRITION FROM OFFENDING BEHAVIOUR PROGRAMS

Non-starters (ref)	OGRS3	-0.20	0.025	0.656	0.980	0.932 – 1.029
	Attitudes and Motivation	-0.231	0.130	3.142	0.794	0.615 – 1.025
	Emotional Reactions	0.144	0.090	2.573	1.155	0.969 – 1.377
	Offending Beliefs	-0.169	0.145	1.365	0.844	0.636 – 1.122
	Efficacy	0.186	0.145	1.644	1.205	0.906 – 1.602

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*   p   <   0.05,   *****   p   <   0.001