An Exploration of Responsivity among Violent Offenders: Predicting Access to Treatment, Treatment Engagement and Programme Completion

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This retrospective archival study examines whether pre-treatment responsivity characteristics influence access to, engagement in, and completion of a violent offender treatment programme. The participants are 115 violent offenders referred for a group-based multi-module treatment programme in medium- and high-security correctional facilities in Victoria, Australia. The case files for each participant were reviewed and information regarding responsivity factors and responses to treatment were gathered. Responsivity characteristics include psychopathy (Psychopathy Checklist: Screening Version; PCL:SV), denial and minimisation (Denial and Minimisation Checklist – Third Edition; DMCL-III), and measures of motivation to engage in treatment and guilt and shame associated with violent offending. Engagement was scored using the Response to Treatment Scale. Offenders with higher PCL:SV Factor 2 scores were less likely to be offered a place in the programme and offenders with greater external pressure or motivation to participate in treatment were more likely to commence treatment. Psychopathy and pre-treatment denial and minimisation of offending are related to poorer engagement in treatment; feelings of guilt and shame, along with motivation to participate in treatment, are positively associated with engagement. Predictors of treatment completion include external motivators promoting participation in treatment, within-treatment behaviours (e.g. inappropriate or disruptive behaviour), and psychopathy.

Key words: engagement; responsivity; treatment completion; violent offenders.

Violent offenders have relatively high rates of reoffending (up to 50% in some jurisdictions; Dowden, Blanchette, & Serin, 1999; Nadesu, 2009) and their violent behaviour causes significant harm (Heseltine, Sarre, & Day, 2011). Despite being the focus of intensive rehabilitative efforts, few rigorous evaluations of violent offender programmes have been conducted. Consequently, there is limited evidence from which to draw firm conclusions about the efficacy of intervention programmes for violent offenders (McGuire, 2008). Extant research suggests that

psychological treatment can reduce reoffending (Dowden & Andrews, 2000; Polaschek & Collie, 2004), especially when programmes adhere to the principles of effective rehabilitation, i.e. the Risk-Needs-Responsivity (RNR) model (Andrews & Bonta, 2010). However, intervention programmes rarely work for all offenders, suggesting a need to investigate the specific qualities of individuals and the therapeutic environment that impact treatment response. This study investigates whether pre-treatment offender characteristics influence access to, engagement in

and completion of a violence intervention programme.

The RNR model identifies three key principles for effective offender rehabilitation (Andrews & Bonta, 2010): (i) matching the intensity of treatment to an offender's risk level, and targeting intensive services towards higher-risk offenders (i.e. the 'risk' principle); (ii) ensuring that treatment programmes focus on addressing criminogenic factors related to reoffending (i.e. the 'needs' principle); and (iii) providing treatment in a style and format that maximises responsiveness to the therapeutic process (i.e. the 'responsivity' principle). Most research has focused on risk assessment and the identification of treatment needs, with limited attention paid to responsivity factors (Looman, Abracen, Serin, & Marquis, 2005). In this regard, it is now widely accepted that interventions targeting moderate- to high-risk offenders and programmes that address multiple criminogenic needs produce the greatest reductions in recidivism (Dowden & Andrews, 2000). However, the precise role of responsivity factors is not clearly understood, despite these variables being postulated as factors that are critical to programme success (Harkins & Beech, 2007).

The term 'responsivity' is used to refer to both the specific attributes of offenders (e.g. cognitive styles, personality) that inhibit or enhance engagement in treatment and the features of the therapeutic environment (e.g. the style and mode of treatment delivery) that maximise or impair learning (Day, Casey, Ward, Howells, & Vess, 2010). Recent research has revealed the importance of offender responsivity barriers (resulting from a poor fit between the offenders' needs and the programme stages) as one of the significant causes of programme ineffectiveness (Howells & Day, 2003). Enhancing knowledge about responsivity factors and how they influence treatment outcomes could improve programme effectiveness in two ways. Firstly, knowledge about responsivity factors can help to refine programme selection

criteria to ensure that offenders are placed in appropriate treatment; high rates of attrition suggest that treatment programmes may not be relevant and responsive to offender needs. (McMurran & Theodosi, 2007). Secondly, explicit knowledge about responsivity factors could reduce barriers to engagement and improve retention in treatment, thus resulting in even greater reductions in recidivism (Kennedy, 2000; Ward, Day, Howells, & Birgden, 2004). The emergence of empirical studies on responsivity in recent years has expanded the scope of early RNR conceptualisations of the specific responsivity principle to include a range of individual factors such as demographic characteristics (e.g. age, gender, culture), cognitive, emotional and interpersonal skills, personality factors, motivation and personal strengths (Andrews & Bonta, 2010).

Empirical Evidence for Responsivity

The level of fit between individual characteristics and offender rehabilitation programmes is increasingly being recognised as critical to treatment success (Ward et al., 2004). Although empirical research has provided some indication of the internal responsivity conditions that may influence treatment outcomes (Looman, Dickie, & Abracen, 2005), only a limited number of factors have received research attention (psychopathy and motivation are the two factors most commonly discussed; Polaschek, 2011), while few empirical studies have explored responsivity among violent offenders (Day et al., 2009).

Regarding psychopathy, empirical research suggests that it is difficult to treat psychopathic offenders. They are more likely to be disruptive in treatment (Hobson, Shine, & Roberts, 2000), less likely to complete programmes (Olver, Stockdale, & Wormith, 2011) and recidivate at a higher and faster rate than non-psychopathic offenders (Hemphill & Hart, 2002), which has led to some programmes denying access to group treatment for highly psychopathic offenders. However,

despite early conclusions that psychopaths are untreatable (Ogloff, Wong, & Greenwood, 1990; Rice, Harris, & Cormier, 1992), emerging evidence suggests that some offenders with psychopathic traits can respond positively to treatment (Polaschek & Daly, 2013), develop therapeutic alliances with programme facilitators (Polaschek & Ross, 2010), successfully complete treatment programmes (Olver & Wong, 2011), and demonstrate reduced recidivism rates as a result (Langton, Barbaree, Harkins, & Peacock, 2006; Polaschek & Daly, 2013). These areas of emerging research suggest that the interpersonal and affective traits associated with psychopathy are more highly correlated with negative behaviour in treatment (Hobson et al., 2000) and may be more salient predictors of treatment attrition (Olver & Wong, 2011) compared to the social deviance traits of psychopathy. Thus, psychopathy is perhaps best reconceptualised as a responsivity factor that signals possible challenges for programme delivery and a need for adaptation rather than being an exclusionary criterion (Polaschek & Daly, 2013).

Motivation and commitment to change are crucial elements of treatment responsivity and are frequently cited as important goals of offender rehabilitation (Tierney & McCabe, 2002). They are vital because therapeutic change requires offenders to be active agents rather than passive recipients of treatment (Drieschner, Lammers, & van der Staak, 2004). However, some offenders attend treatment not because they view their behaviour as requiring change, but because of the consequences they face if they do not (Day, Tucker, & Howells, 2004). Empirical research suggests that motivation to participate in treatment and desist from offending behaviour is a dynamic responsivity factor that can change prior to or during treatment (Barnett, Wilson, & Long, 2003). Offender motivation has been found to be responsive to therapist behaviour (Polaschek & Ross, 2010), influence engagement in intervention programmes (Hiller, Knight, Leukefeld, &

Simpson, 2002), and moderate treatment outcomes (Williamson, Day, Howells, Bubner, & Jauncey, 2003). However, these relationships have rarely been investigated among violent offenders.

Other individual attributes that have been hypothesised to be associated with engagement in treatment and treatment outcomes include cognitive distortions associated with denial and minimisation of offending (Looman et al., 2005) and affective responses to offending behaviour (Howells & Day, 2006). The limited research available on these factors suggests that admissions of guilt and acceptance of responsibility for sexual offences may improve treatment outcomes (Barnett et al., 2003), and that denial and minimisation of sexual offending are inversely related to engagement with, and progress in, treatment (Levenson & Macgowan, 2004), and treatment completion (Latendrese, 2007). Expressions of guilt and shame about offending are predicted to influence treatment outcomes, such that feelings of guilt are anticipated to promote a desire to seek reparative actions, which may be conducive to engagement with therapy. Shame, on the other hand, is assumed to inhibit successful engagement with offender treatment because of a desire to withdraw socially (Hosser, Windzio, & Greve, 2008; Proeve & Howells, 2002). However, these predictions about the role of guilt and shame as responsivity factors are 'little more than assumptions, and there is a clear need for empirical investigations' (Howells & Day, 2006, p. 180); this is particularly the case with violent offenders since extant speculation exists within the context of general and sexual offenders.

Treatment Engagement

Responsivity is hypothesised to influence recidivism risk and reductions in criminogenic needs indirectly by impacting on an offender's ability to engage with treatment. Low engagement and high rates of treatment

non-completion appear to be endemic problems for offender rehabilitation programmes, especially among higher-risk individuals (Wormith & Olver, 2002). Not only is failure to complete treatment associated with elevated rates of reoffending (McMurran & Theodosi, 2007) but completing treatment does not necessarily equate to positive treatment outcomes for all offenders (Day, Bryan, Davey, & Casey, 2006). These findings call into question the responsiveness of current programmes to individual needs, and highlight the importance of determining the factors that influence engagement with and successful completion of rehabilitation programmes. To reduce recidivism risk effectively, programmes require more than attendance; they require offenders to actively engage with, learn from, and change their behaviour as a result of programme participation. Thus, engagement in treatment is a crucial intermediate goal before programmes can achieve changes in criminogenic needs (Ward et al., 2004); further research is therefore required to elucidate the readiness and responsivity factors that can enhance or inhibit offenders' engagement in the therapeutic process.

Responsivity as Exclusionary Criteria

Many responsivity factors are dynamic and thereby should not be used as exclusionary criteria to deny offenders access to appropriate treatment (Beyko & Wong, 2005). Rather, programme delivery should be flexible and adapted to meet individual needs. For example, responsivity factors that are dynamic in nature (e.g. offender motivation) could be addressed prior to or during treatment; and, in the case of more static responsivity considerations (e.g. cognitive ability, learning styles), the delivery of treatment could be modified to accommodate specific needs. Focusing research on developing an 'attrition profile' that excludes 'untreatable' offenders from programmes could lead to a situation wherein the clientele who stand to benefit most from

completing treatment (i.e. higher-risk, challenging clients) are less likely to receive the services they need (Beyko & Wong, 2005; Olver et al., 2011). This is an important consideration for responsivity research. However, no known studies have investigated whether readiness or responsivity factors influence access to treatment. The current study aims to fill this gap.

The Current Study

This study aims to investigate the relationship between responsivity factors and access to and engagement in treatment, and treatment completion, among a sample of violent male offenders referred to a prison-based intervention programme. Considering the limited research examining the role of responsivity factors in violent offenders, it is important to identify how individual attributes can inhibit and facilitate access to, engagement in and subsequent completion of offender treatment programmes. This study thus poses the following hypotheses: (1) psychopathy, denial and minimisation, and feelings of shame are inversely related to engagement in group therapy; (2) motivation to complete treatment and feelings of guilt are positively correlated with engagement in treatment; and (3) engagement in treatment is positively associated with treatment completion. No specific hypotheses are proposed regarding how responsivity factors may influence entry to treatment, as there is no prior research upon which to base these predictions.

Method

Participants

The participants consist of 115 adult violent male offenders sentenced to one of three prisons in Victoria, Australia: Marnongneet Correctional Centre (medium security), Loddon Prison (medium security), or Barwon Prison (maximum security). Participants were assessed between 2005 and 2010 for

suitability to attend a violence treatment programme. This assessment was usually conducted upon entry to prison, shortly after sentencing. Eligibility for treatment was determined by the Violence Risk Scale (VRS; Wong & Gordon, 2006); offenders with moderate- or high-risk scores were referred for treatment (along with some offenders who had a low-risk rating on the VRS but were still recommended for treatment). Offenders who were determined to be eligible for treatment were offered a place in one of two violence intervention programmes during their incarceration.

The mean age of the sample at the time of VRS assessment was 32.4 years ($SD = 8.6$, range = 20.2–67.5). The majority of the sample was identified as Caucasian Australian (62.6%), with 17.4% identified as Aboriginal or Torres Strait Islander, and 20.0% from a range of other ethnic groups. The majority of the sample had not completed high school (88.7%) and most participants had a self-reported history of drug (80.9%) and/or alcohol (63.5%) abuse (coded from pre-treatment assessment reports). The average minimum sentence length was 4.6 years ($SD = 3.5$). Most of the sample was sentenced for assault (65.5%), robbery (17.2%) or homicide offences (7.8%). Most had at least one prior conviction for violent (91.2%) and non-violent offences (94.7%), and had served at least one previous term of imprisonment (75.7%) prior to their current period of incarceration.

Treatment Programme

The Moderate and High Intensity Violence Intervention Programmes (the MIVIP and the HIVIP) provide manualised, specialised treatment for violent offenders and are administered in prisons and community corrections settings in Victoria, Australia. The violence intervention programmes are primarily delivered in a closed-group therapy format (occasionally the programme content is delivered to offenders on a one-to-one basis during individual therapy sessions) by Corrections

Victoria clinicians (trained mental health professionals). The programmes are cognitive-behavioural in nature, and involve cognitive restructuring techniques, modelling and activity-based learning. Treatment targets multiple criminogenic need domains associated with violent and aggressive behaviour: (i) antisocial scripts, cognitions and attitudes, (ii) anger and emotion regulation, (iii) victim empathy and awareness, and (iv) relapse prevention and self-management. Although participation in treatment is voluntary, offenders are aware that completing programmes is an important consideration when applying for parole.

The MIVIP targets moderate-risk offenders and involves 33 sessions, held twice weekly for approximately 5 months. In contrast, the HIVIP targets high-risk offenders and involves a 67-session core programme conducted three times per week for approximately 6 months. Sessions in both the MIVIP and HIVIP run for three hours. Most participants in the current study completed treatment in a therapeutic prison environment (i.e. at the medium-secure Loddon and Marn-goneet correctional centres). In the current sample, only two participants (2.4%) completed treatment in the maximum-security facility (i.e. Barwon Prison).

Procedure and Measures

This study involves a retrospective archival analysis of offender files from Corrections Victoria (clinical service therapeutic files and prison management files) and the Adult Parole Board of Victoria. Case files for each participant were systematically reviewed and audited. Two doctoral-level psychology students coded the data for the study. A data collection protocol was developed to gather information regarding key variables, including demographic information (i.e. age at time of assessment, level of education, ethnicity, history of drug and/or alcohol abuse), details about index offence(s) and criminal history (i.e. sentence length, type of offences,

number of convictions, number of past imprisonments), risk scores, pre-treatment responsivity factors, access to treatment, level of treatment engagement, and rates of treatment completion.

The Violence Risk Scale (VRS)

The VRS (Wong & Gordon, 2006) is a clinician-rated dynamic risk assessment measure developed to evaluate risk of violence while also identifying criminogenic treatment targets and changes in risk factors following treatment. The 26 VRS items (6 static and 20 dynamic risk factors) are scored on a 4-point scale (0–3) and summed to produce a total risk score and risk rating; higher scores indicate increased risk of violence. Scores of 35 and under indicate a low risk of violence, scores of 35 to 50 indicate a 'moderate' risk, and scores above 50 indicate a high risk (Wong & Gordon, 2006). A scoring rubric is provided to evaluate changes in violence risk following treatment (Wong & Gordon, 2003). When assessing offenders for suitability to engage in the violence intervention programme, clinicians at Corrections Victoria scored the VRS based on an interview and review of collateral information. The completed VRS scores were recorded during the data collection process. Two thirds of the offenders (66.1%, $n = 76$) were classified as moderate risk on the VRS during the assessment period (i.e. prior to entry to treatment, even though some offenders scored below 35 on the VRS, the offender was still regarded as a moderate risk for future violence); the remainder were classified as high risk (33.9%, $n = 39$).

Psychopathy

The Psychopathy Checklist: Screening Version (PCL:SV; Hart, Cox, & Hare, 1995) is a clinical symptom-rating scale that provides a two factor dimensional measure of psychopathic personality traits. Factor 1 represents the interpersonal and affective characteristics

of psychopathy (e.g. lack of remorse and empathy, grandiosity) while Factor 2 assesses chronic antisocial behaviour (e.g. impulsivity, irresponsibility). The PCL:SV is comprised of 12 items scored on a 3-point scale, with total scores ranging from 0 to 24. Items can be omitted (a total of 2) if information is unavailable. The PCL:SV is a valid and reliable measure, with a factor structure that strongly resembles the full version of the instrument (Cooke, Michie, Hart, & Hare, 1999). The PCL:SV can be scored through file review alone (without an interview) if high-quality collateral information is available (Hemphill & Hart, 2003). As psychopathy is considered to be a relatively stable personality construct, the PCL:SV was scored by the researchers from all information contained in the Corrections clinical files, prison management files and Adult Parole Board files, rather than limiting coding to information available before the offender entered treatment.

Responsivity Factors

A series of rating items and coding instructions was adapted to evaluate responsivity factors; these items were coded using information from pre-treatment reports and documents only (e.g. judicial sentencing remarks, pre-treatment assessment reports). A copy of the coding protocol is available from the authors on request. Levels of acceptance of responsibility for offending behaviour were coded using the Denial and Minimization Checklist – Third Edition (DCML-III; Langton et al., 2008), which was adapted for use with a violent offender population. The DCML-III consists of three categories of denial and seven categories of minimisation, with associated exemplars to assist coding, and can be scored from file information alone when used for research purposes. Each item is rated on a 3-point scale (0 = *not evident*, 1 = *partially evident*, 2 = *evident*) to assess the degree to which an offenders' account of his violent index offence was irreconcilable

with official documentation (Langton et al., 2008). Denial scale scores represent the highest single category rating across the three items (range 0 to 2). Minimisation scale scores were calculated by summing ratings across the seven minimisation items, where the total scores ranged from 0 to 14, with higher scores indicating minimisation in multiple categories.

Other measures of responsivity factors were developed specifically for this study, including ratings of internal motivation and external motivation to engage in treatment (scored on 5-point scales with exemplars), and dichotomous ratings of feelings of guilt and shame associated with violent offending behaviour (0 = *present*, 1 = *absent*). Although guilt and shame are both self-evaluative emotions, they are distinguished from one another through core cognitive characteristics and action tendencies (i.e. guilt is conceptualised to involve a negative appraisal of one's actions or problematic behaviour, whereas shame involves a negative evaluation of the self as defective or morally reprehensible).

Access to Treatment

Some offenders are not accepted into treatment. Extant literature has rarely considered the factors – aside from high psychopathy ratings and administrative issues such as time remaining in custody – that result in treatment providers offering or denying treatment. In this study, access to treatment was scored positive if the offender was offered a place in treatment.

Treatment Engagement

The Response to Treatment scale (Langton et al., 2006) was used to assess engagement in treatment. The scale consists of 8 items, scored on a 4-point Likert-type scale (ranging from 1 to 4) that includes a comprehensive set of criterion-based exemplars to aid scoring. Total scores reflect overall engagement

with treatment, whereas the two subscales assess the offender's (i) behaviour in treatment (Conduct subscale, 4 items) and (ii) change on specific treatment targets such as the development of victim empathy (Treatment Targets subscale, 4 items). Higher scores indicate more positive engagement in treatment and positive change towards attaining the goals of treatment. Internal consistency estimates for the total scale score ($\alpha = .83$) and subscale scores (Conduct, $\alpha = .81$; Treatment Targets, $\alpha = .72$) are good. The Response to Treatment scale was scored using treatment progress notes and treatment completion reports contained in Corrections Victoria clinical files, and post-treatment parole assessment reports contained in the files of the Parole Board of Victoria.

Treatment Completion

Treatment non-completion is defined as a failure to complete the MIVIP or HIVIP, and therefore failure to remain in treatment for the full duration of the programme. Treatment completion status for each offender is clearly identified in file documents and was operationalised in a binary manner (0 = *did not complete treatment*, 1 = *completed treatment*). Reasons for treatment attrition were coded using categories described by Wormith and Olver (2002): (a) *administratively-based exit* refers to departures due to system factors that are unrelated to the programme (i.e. prison transfers or release), (b) *facilitator-initiated withdrawal* refers to exit from treatment due to disruptive behaviour in the group or unsatisfactory contributions to the group, and (c) *offender-initiated dropout* refers to premature departures based on an offender's request to leave. Most offenders (97.4%, $n = 112$) completed the MIVIP or HIVIP in a group; however, 3 offenders began and completed the programmes individually (and were coded as treatment 'completers'), while 5 offenders began treatment in the group format but were exited from group programmes early (for administrative-based reasons) and

finished the programme through individual therapy sessions (and are classified as 'treatment non-completers' for the purposes of the current analyses).

Statistical Analyses

The relationship between ratings of pre-treatment responsivity factors and levels of treatment engagement were explored using *t*-tests, Pearson correlations and Spearman ranked correlations. Univariate and multivariate logistic regression analyses were used to assess significant predictors of treatment completion.

Missing Data

Not all treatment files contained enough information to reliably score some of the items from the RTS scale, resulting in missing data; 15 offenders (18.1%) had at least one item (out of eight items) on the RTS that could not be scored. Missing values for these 15 offenders were estimated via a stepwise regression procedure (Tabachnick & Fidell, 2001). Each RTS item with missing data was regressed on the remaining seven items, and significant predictors were extracted. The value of the missing item for specific participants was then estimated through a linear

combination of weighted variables, utilising the following formula: Y (missing value) = B (unstandardised beta coefficient) $\times$ Item (predictor) + constant. Missing values for a small number of offenders ($n = 3$) could not be estimated and were excluded pairwise from relevant analyses.

Inter-rater Reliability

Inter-rater reliability coefficients were determined by the dual coding of a randomly selected subset of 13 cases (11.3% of all cases coded). Files for the 13 cases were reviewed and each researcher independently coded data for these cases; discrepancies were resolved through consensus agreement. The average Krippendorff's alpha (Hayes & Krippendorff, 2007; Krippendorff, 2004) for ordinal variables was $\alpha = .90$ and the mean single measure of intraclass correlation coefficient (ICC) for continuous variables was $r_{ICC} = .99$, reflecting a high level of agreement for research purposes (Kottner et al., 2011).

Results

Descriptive Statistics

Pre-treatment descriptive statistics for responsivity factors are provided in Table 1.

Table 1. Descriptive statistics for pre-treatment responsivity factors.

	Possible range	<i>n</i>	<i>M</i>	(<i>SD</i>)	Min.	Max.
Responsivity factors						
VRS total score	0–78	115	45.60	(7.92)	30	74
PCL:SV Factor 1 score	0–12	115	3.76	(2.45)	0	12
PCL:SV Factor 2 score	0–12	115	8.58	(2.00)	1	12
PCL:SV total score	0–24	115	12.35	(3.61)	4	23
Minimisation of violent offence(s)	0–21	115	6.05	(2.62)	0	13
Internal motivation	1–5	115	2.34	(0.93)	1	4
External motivation	1–5	113	3.07	(0.76)	1	5
Engagement in treatment						
RTS: Conduct subscale	3–12	83	8.11	(1.77)	4	11
RTS: Treatment Targets subscale	3–12	76	8.12	(1.73)	5	12

Note. PCL:SV = Psychopathy Checklist: Screening Version; RTS = Response to Treatment Scale; VRS = Violence Risk Scale.

Only a small proportion of offenders experienced guilt (18.3%) associated with their violent index offences, although more were noted to experience shame (34.8%); one third of the sample denied aspects of their violent index offence (35.7%). Most offenders minimised some aspects of their violent offending behaviour, although this varied considerably. On average, offenders in this sample were not particularly motivated to engage in treatment. Approximately half of the offenders (51.8%, $n = 60$) were classified as 'non-psychopaths' (i.e. PCL:SV scores of 12 or below) based on the criteria for research suggested by Hart et al. (1995); 41.2% ($n = 47$) were classified as 'possible psychopaths' (i.e. PCL:SV scores of 13 to 17) and 7.0% ($n = 8$) were designated as 'definite psychopaths' (i.e. PCL:SV scores of 18 or above).

Access to Treatment

A total of 85 offenders commenced treatment in either the MIVIP (56.5%, $n = 65$) or HIVIP (17.4%, $n = 20$). Around one quarter of eligible offenders did not enter either treatment programme (26.1%, $n = 30$). Further analyses were conducted to investigate why some eligible offenders did not commence treatment; that is, whether demographic, institutional or responsivity factors are associated with access to treatment.

A significant predictor of placement in treatment is the length of time the offender had left to serve at the time of assessment for suitability to enter treatment (i.e. amount of time remaining on the offender's sentence until the end of the non-parole period, and thus eligibility for release on parole), $r(114) = .27$, $p = .004$. That is, offenders who entered treatment had significantly longer remaining on their sentences at the time of assessment ($M = 137.40$ days, $SD = 225.69$), than offenders who did not begin treatment ($M = 351.09$ days, $SD = 377.24$), $t(113) = -2.92$, $p = .004$, two-tailed, $d = .79$. None of the demographic variables

investigated are associated with placement in treatment: age at the time of the VRS treatment eligibility assessment, ethnic background (e.g. Australian Caucasian, Aboriginal or Torres Strait Islander or other ethnicity) and highest educational attainment (e.g. completed year 9 or less, years 10–11 or completed high school). Additionally, VRS static subscale, dynamic subscale and total scores are not significantly correlated with placement in treatment.

Only two responsivity factors are significantly related to entry into treatment: PCL:SV Factor 2 scores, $r(114) = -.26$, $p = .005$, and ratings of external motivation, $r(113) = .24$, $p = .010$. Offenders with higher PCL:SV Factor 2 scores were less likely to be offered a place in either of the treatment programmes, and offenders with greater external pressure or motivation to participate in treatment were more likely to commence violence intervention programmes. The remaining responsivity factors (i.e. PCL:SV Factor 1 and PCL:SV total scores, minimisation scores and ratings of internal motivation to participate in treatment) are not significantly associated with entry into treatment. Furthermore, whether an offender denied aspects of their violent index offence, or experienced feelings of guilt or shame, are not significantly correlated with entry into treatment (as determined by three phi-coefficients).

Treatment Engagement

Descriptive statistics for the RTS engagement subscale scores are presented in Table 1. Overall, there is a moderate correlation between the Conduct in Treatment and Treatment Targets subscales of the RTS, $r(76) = .46$, $p < .001$. As predicted, many of the responsivity factors are related to treatment engagement; however, the pattern of relationship varies between the treatment engagement subscales (see Table 2 for correlation matrices). Offenders with higher levels of psychopathy were more likely to behave poorly in treatment; however, only Factor 1

scores on the PCL:SV (i.e. the affective characteristics of psychopathy) are negatively correlated with how well offenders engaged with the programme content (i.e. Treatment Target scores). Offenders with higher levels of internal motivation and external motivation prior to entering treatment were more likely to demonstrate better conduct in treatment and more likely to achieve the targets of treatment, as were offenders who experienced shame regarding their violent offending behaviour. Expressions of guilt, denial and minimisation associated with violent offending are only associated with change in specific treatment targets, not with behaviour during treatment. Denial and minimisation appear to impair engagement with treatment content, whereas feelings of guilt facilitate engagement.

A number of significant interrelationships emerged between the responsivity factors. Psychopathy (PCL:SV Factor 1 scores and PCL:SV total scores) is inversely related to internal motivation to engage in treatment and feelings of guilt or shame. Denial and minimisation associated with violent offending are negatively correlated with internal motivation, although they are unrelated to external motivators pressuring engagement with treatment. Finally, feelings of guilt and shame associated with violent offending are positively related to offenders' internal desire to engage in treatment.

Predictors of Treatment Completion

The majority of offenders who started treatment ($n = 85$) completed the violence intervention programmes (80.0%, $n = 68$); only a small proportion prematurely dropped out of treatment (20.0%, $n = 17$). Although the non-completion rate from the HIVIP treatment group is higher (30.0%, $n = 6$) than the non-completion rate for the MIVIP group (16.9%, $n = 11$), this difference is non-significant, $\chi^2 = 1.64$, $n = 85$, $p = .201$. Offenders who did not complete the intervention programme ($M = 96.31$ days, $SD = 65.38$) spent significantly less time in treatment than offenders who completed the violence intervention programme ($M = 128.79$ days, $SD = 31.89$), $t(81) = -2.90$, $p = .005$, two-tailed, $d = .81$. Reasons for treatment non-completion were coded for the 17 offenders who did not complete treatment: they were most likely to drop out of treatment because of prison transfers as a result of institutional misconduct for behaviour outside of the group programme ($n = 10$, 58.8%) or other administratively-based reasons ($n = 2$, 11.8%); few offenders chose to discontinue treatment ($n = 2$, 11.8%), or were exited from the treatment by programme facilitators ($n = 3$, 17.7%).

A series of univariate logistic regression analyses was conducted to investigate predictors of treatment completion. Among the pre-treatment responsivity factors, only level of

Table 2. Pearson and point-biserial correlation coefficients for pre-treatment responsivity factors and treatment engagement ratings.

	Conduct in Treatment	Treatment Targets	2.	3.	4.	5.	6.	7.	8.	9.
1. PCL:SV Factor 1 score	-.24*	-.40**	.30**	.85**	.17	.28**	-.47**	-.19*	-.26**	-.34**
2. PCL:SV Factor 2 score	-.32**	-.06		.76**	.04	.14	-.15	-.22*	-.02	-.10
3. PCL:SV total score	-.38**	-.30**			.14	.27**	-.42**	-.26**	-.19*	-.29*
4. Denial	-.10	-.32**				.39**	-.27**	.04	-.21*	-.12
5. Minimisation	-.15	-.31**					-.29**	-.03	-.13	-.01
6. Internal motivation	.33**	.42**						.48**	.19*	.27**
7. External motivation	.32**	.24*							.11	.23*
8. Guilt	.17	.26*								.22*
9. Shame	.22*	.27*								

Note. * $p < .05$, two-tailed; ** $p < .01$, two-tailed. PCL:SV = Psychopathy Checklist: Screening Version.

external motivation to engage in treatment and psychopathy scores have significant relationships with treatment completion (Table 3). External motivation to engage in treatment enhances programme completion; conversely, higher PCL:SV scores are associated with a decreased likelihood of completing treatment (i.e. a greater likelihood of prematurely exiting the VIPs). Importantly, the antisocial/impulsive traits associated with psychopathy (PCL:SV Factor 2) appear to be a stronger predictor of early treatment dropout compared to the affective/interpersonal characteristics (PCL:SV Factor 1). No other responsivity factors or demographic characteristics of the offender (i.e., age, ethnic background and educational attainment) are associated with treatment non-completion. Offenders' level of engagement with the rehabilitation programme is positively associated with treatment completion; the Conduct in Treatment subscale of the RTS predicts treatment completion (although the Treatment Targets subscale does not). As would be anticipated, offenders who exhibit problematic behaviour in treatment (Conduct in Treatment scores) are significantly more likely to be exited from treatment prematurely (Table 3).

Finally, a multivariate logistic regression analysis was conducted in which the significant covariates noted in the previous analysis (Table 3) were entered into the model in order to examine their independent predictive relationship to treatment completion. Four of the five significant predictors – PCL:SV Factor 1 and Factor 2 scores, external motivation

ratings, and the conduct in treatment scores – were entered simultaneously into the model (PCL:SV total scores were excluded from this analysis due to high collinearity with factor scores). The resulting model was significant, $\chi^2(4, n = 81) = 19.59, p = .001$, and as a whole, correctly classified 87.7% of cases. Only two variables made a unique contribution to the model: PCL:SV Factor 2 scores are associated with programme non-completion, $\beta = -0.50, SE(\beta) = 0.14, p = .050$, odds ratio = 0.61, 95% CI [0.37, 1.00], and Conduct in Treatment subscale scores predict treatment completion, $\beta = 0.44, SE(\beta) = 0.23, p = .054$, odds ratio = 1.55, 95% CI [0.99, 2.40]. Neither PCL:SV Factor 1 scores nor external motivation ratings uniquely predict treatment completion.

Discussion

Responsivity factors are purportedly important determinants of treatment response; however, few studies have identified key responsivity factors and examined their impact on treatment participation and treatment outcome. The aims of this study are to explore whether individual responsivity factors prevent or facilitate access to treatment, and in turn whether these factors impact engagement in, and successful completion of, a prison-based violence intervention programme. The results provide preliminary evidence for the importance of responsivity characteristics in predicting treatment outcomes, and lend support to the Multifactor

Table 3. Cox regression analyses: univariate predictors of treatment completion.

Predictor	β	$SE(\beta)$	Wald's χ^2 (1)	p	e^{β} (OR)	95% CI (e^{β})
PCL:SV Factor 1 score	-0.24	0.11	5.12	.024	0.79	[0.64, 0.97]
PCL:SV Factor 2 score	-0.52	0.21	6.44	.011	0.59	[0.40, 0.89]
PCL:SV total score	-0.29	0.09	9.13	.003	0.75	[0.63, 0.91]
External motivation	0.98	0.44	4.89	.027	2.66	[1.12, 6.33]
Conduct in treatment	0.65	0.21	10.13	.001	1.92	[1.29, 2.87]

Note. CI = confidence interval; OR = odds ratio; PCL:SV = Psychopathy Checklist: Screening Version; SE = standard error.

Offender Readiness Model assumption that individual factors indirectly influence treatment completion by promoting or inhibiting engagement in the therapeutic process (Ward et al., 2004). Two responsivity factors have emerged as significant predictors across all outcome variables in this study (i.e. access to, engagement in and completion of treatment): the impulsive traits and antisocial behaviours of psychopathy (as measured by the PCL:SV Factor 2) and external motivation or pressure to participate in treatment. The implications of these findings are explored below.

Offenders who present with significant histories of antisocial behaviour, are impulsive and irresponsible, and lack goals or display poor behavioural controls are likely to be more difficult to manage in the prison environment, and thus it is perhaps unsurprising that offenders who score high on Factor 2 of the PCL:SV are less likely to enter into treatment. Although these offenders were deemed eligible for treatment (on the basis of the violence risk score), their impulsive and irresponsible behaviours may have resulted in staff refusing entry into treatment, or their behaviour may have resulted in institutional sanctions (e.g. segregation or transfer prior to the commencement of the programme) that precluded participation.

Once accepted into treatment, offenders with higher PCL:SV Factor 2 scores are more likely to display poorer conduct in treatment and discontinue treatment prior to programme completion. These findings are consistent with past studies which indicate that offenders who display aggressive and disruptive behaviours (Beyko & Wong, 2005; Olver et al., 2011) and have antisocial personality traits (Larochelle, Diguier, Laverdière, & Greenman, 2011) are most likely to exit treatment prematurely. Interestingly, however, PCL:SV Factor 2 scores are only correlated with the behavioural component of the engagement in treatment construct (i.e. how well an offender conducts himself in treatment); Factor 2 scores are unrelated to ratings of how well an offender engages with the

content of the programme and thus achieves the goals of treatment (i.e. the Treatment Targets subscale of the RTS). In contrast, the interpersonal and affective features of psychopathy (i.e. PCL:SV Factor 1 scores) are negatively associated with both facets of engagement in treatment, but demonstrate the highest correlations with the Treatment Targets subscale of the RTS. These results suggest that specific features and traits of psychopathy may present different responsivity issues, and thus may require distinct responses to maximise programme engagement. The need for alternative therapeutic approaches for high-risk psychopathic offenders has been highlighted by Wong, Gordon, Gu, Lewis, and Olver (2012). The current study suggests that the affective and interpersonal traits of psychopathy may interfere with offenders' ability to achieve the goals of treatment (e.g. enhanced understanding of offence cycle, increased victim empathy), whereas the antisocial and behavioural features of psychopathy appear to be more likely to pose challenges to how offenders conduct themselves in treatment.

The presence of external motivators appears to facilitate access to treatment, as well as engagement in and successful completion of the programme. External motivation in this study is coded from the offenders' perspective and captures their perception of external contingencies or pressure to attend treatment (e.g. eligibility for parole, social or family pressure to change), rather than the actual level of pressure that was applied. This is an important distinction because research suggests it is an offender's subjective experience rather than the objective legal pressure or mandate itself which predicts therapeutic outcomes such as engagement in treatment, programme completion rates and risk for recidivism (Day et al., 2004). It is not uncommon for mandated clients not to feel coerced to attend treatment, and conversely, for self-referred participants to report that they were pressured to attend treatment (Wild, Newton-Taylor, & Alletto, 1998); thus, it is crucial to

understand how each offender views his participation and the pressure placed on him to attend treatment, as well as his own internal desire to change. The current results are important because few studies have investigated the role of motivation among violent offenders – especially external pressure to attend treatment – beyond domestic violence offenders. The limited evidence available indicates there are high dropout rates among domestic violence offenders, even when participants are mandated to attend treatment (Daly & Pelowski, 2000; Rosenfeld, 1992), contrary to the results of this study. These results provide an important insight into the role that external contingencies may play in getting offenders into treatment, as well as in keeping them there. Treatment providers could emphasise perceived external pressures early in the engagement process, to facilitate offenders' attendance and compliance. This approach could enhance programme engagement and completion rates for some offenders who might not otherwise be motivated to attend treatment; however, this may not be a sufficient condition for behaviour change.

Most research suggests that behavioural change and reductions in risk have greater longevity when motivated by an internal desire to change, rather than by external factors (Wild, Cunningham, & Ryan, 2006). The results of the present study support this contention. Although both internal and external motivation factors show a significant (albeit small) relationship with the two components of treatment engagement, intrinsic motivation is more highly correlated with changes in treatment (i.e. achievement of treatment targets) than external motivation, whereas external pressure to attend treatment is an important factor for programme completion (although intrinsic motivation is not). Motivating offenders to attend treatment – perhaps through external pressure or contingencies – and then enhancing their internal readiness and willingness to change once they are engaged in the process are important goals for offender intervention programmes.

Offenders should not be excluded from attending treatment simply due to lack of motivation; rather, poor motivation should be conceptualised as a responsivity factor requiring intervention (Beyko & Wong, 2005). Unfortunately there is a paucity of research investigating the effectiveness of pre-programme readiness and motivational interviewing approaches with offenders (McMurrin, 2009). Preliminary research indicates that motivational obstacles can be successfully treated (Austin, Williams, & Kilgour, 2011), that and improving these factors can enhance therapeutic outcomes and lead to reductions in recidivism risk (Anstiss, Polaschek, & Wilson, 2011; Marshall, Marshall, Fernandez, Malcolm, & Moulden, 2008). Although it is now widely accepted that motivation is a dynamic characteristic (Barnett et al., 2003), further research is required to clarify how intrinsic and extrinsic motivators among violent offenders change throughout treatment, and whether these responsivity factors or the changes they evoke are associated with a reduction in recidivism.

Overall, most of the other responsivity factors included in the study are significantly correlated with engagement in treatment, in the anticipated direction – although some factors are more strongly related to conduct in treatment compared to achievement of treatment targets. Level of denial and minimisation associated with offending behaviour is a construct typically associated with sexual offending that has been equated with poor motivation for treatment and readiness to change (Beyko & Wong, 2005). Denial of responsibility for offending is therefore assumed to interfere with engagement in treatment by inhibiting problem recognition (Day et al., 2006); an offender is unlikely to participate in treatment if he does not see any need to change. However, these constructs have rarely been assessed among violent offenders (Barnett et al., 2003). The results of the current study lend some support to the suggestion that denial of responsibility for offending is an important responsivity factor: denial and

minimisation among violent offenders in the current study are negatively correlated with internal motivation to engage in treatment. Furthermore, offenders who denied or minimised aspects of their violent history were less likely to be engaged with the tasks and goals of the treatment programme (e.g. Treatment Targets), although they were no more likely to be disruptive.

This study provides preliminary evidence about the rate of guilt and shame among violent offenders (18.3% and 34.8%, respectively) and the impact of these cognitive/affective offending response characteristics on engagement in offender rehabilitation programmes. Feelings of guilt and shame demonstrate a small positive correlation with achievement of treatment targets, although only shame is associated with appropriate conduct in treatment. Neither factor, however, is associated with programme completion. The correlation between feelings of guilt and level of programme engagement is in the anticipated direction; however, shame is not. Theoretical conceptualisations (Howells & Day, 2006; Proeve & Howells, 2002) have previously suggested that feelings of shame should inhibit engagement with treatment due to a desire to withdraw, in contrast to the findings in this study. The somewhat unexpected results here may be the consequence of low detection of these affective reactions due to the nature of the data collection process (i.e. file review); or they could demonstrate a difficulty with the coding of these constructs. The researchers developed clear definitions of guilt and shame based on recommendations in the literature and referred to this when coding file information, so it is unlikely that this reason alone provides an adequate explanation for the unexpected results. Further research is required to explore the roles of shame and guilt in violent offending, and how these factors influence treatment outcomes, as there is remarkably limited empirical data linking these emotions with criminal behaviour (Tangney, Stuewig, Mashek, & Hastings, 2011).

The observed treatment non-completion rates in this study are comparable to, albeit slightly lower than, rates reported in other studies (Polaschek, 2010) and systematic reviews (McMurran & Theodosi, 2007; Olver et al., 2011). Contrary to predictions, however, few of the responsivity factors significantly predict treatment completion. Only PCL:SV scores, ratings of external motivation to engage in treatment and offenders' behaviour during programme sessions are significantly associated with treatment completion; it is only the antisocial traits of psychopathy (i.e. PCL:SV Factor 2 scores) and behaviour in treatment (e.g. attendance, appropriateness of behaviour in sessions, level of participation and disclosure in group, effort in homework tasks) that contribute uniquely to this prediction. These results are unsurprising when the reasons for non-completion in this study are considered. Most offenders exit treatment prematurely due to administrative decisions external to the treatment context (i.e. prison transfers due to institutional misconduct). Within this sample, generalised disruptive and difficult behaviour appears to be the best predictor of treatment completion. Previous treatment attrition research supports the findings of this study (Beyko & Wong, 2005). Importantly, however, treatment completion should be viewed as resulting from an interaction between offenders and their context, not just offender characteristics. Thus, programmes need to develop strategies for helping these offenders to stay in treatment, rather than developing exclusionary criteria for difficult-to-manage offenders and those who are identified as being likely to drop out.

Practical Implications

The results of this study have some important implications for practice. Beyko and Wong (2005) have suggested that predictors of treatment non-completion can be categorised as either risk, need or responsivity factors. Based on the results of this study, aggressive,

antisocial and disruptive behaviour can be viewed as a criminogenic need that also acts as an important responsivity factor. Programmes and prison environments may therefore require adaptation to manage these behaviours without restricting access to treatment. This may require the development of specialised units for the most problematic, highest-risk offenders. It appears important to find ways to retain the most difficult offenders in treatment programmes, as presumably these are the very offenders who could potentially receive the most benefit from intervention. Furthermore, evidence suggests that offenders who drop out of treatment prematurely are at increased risk of future offending (McMurran & Theodosi, 2007), highlighting the importance of finding strategies to reduce non-completion. The results of this study suggest that improving engagement in treatment through addressing responsivity factors prior to entry to treatment or within treatment may be one strategy that can assist with reducing attrition rates. Responsivity factors are dynamic constructs that can be altered with intervention. When these challenges arise, they should indicate a need to provide more intensive or specialised services to support engagement in treatment, rather than a need to exclude particular offenders from programmes (Beyko & Wong, 2005).

Limitations and Future Directions

The study has several limitations. First, it does not address the relationships between responsivity factors, engagement in treatment and reoffending, which are unquestionably the outcome of interest in studies of treatment effectiveness. Future research should explore these relationships in order to investigate whether responsivity factors directly or indirectly influence future criminal behaviour, as hypothesised by previous researchers (Day et al., 2010).

Secondly, the significant correlations found in this study do not imply that responsivity factors are causally related to engagement in treatment, or that unwillingness to

engage in treatment causes programme attrition. These relationships can be attributed to confounding variables not measured in this study (e.g. other readiness factors such as problem recognition, emotional distress and external setting characteristics) or they may be a function of the simultaneous measurement and coding of treatment variables. The researchers were careful not to contaminate the coding of pre-treatment and within-treatment variables, and utilised the following protections: they only relied on pre-treatment file information to code responsivity factors (e.g. presentencing reports, pre-treatment assessment reports, judicial sentencing comments) and ensured that they coded all relevant pre-treatment factors prior to reviewing materials to code within-treatment and programme-outcome variables (e.g. engagement in treatment and treatment completion status). Despite these protections, it is difficult to draw conclusions about directions of relationships and causality.

Finally, an archival file review may not be the best method for assessing the factors that this study has investigated. This method can only capture information that is available in the file; the depth and quality of information contained in each file varies, and thus if relevant factors are present but are not included in reports or treatment notes then the variables cannot be coded. Future research should consider investigating the role of responsivity and readiness using prospective studies, and using objective ratings of responsivity and engagement by therapists and/or observers, as well as self-report instruments (Day et al., 2009). This is especially important considering the internal nature of many of these responsivity factors; some evidence suggests that observers may not be able to accurately assess internal phenomena (McMurran, Theodosi, & Sellen, 2006).

Conclusion

Despite the above-mentioned limitations, the present study provides preliminary evidence

for the role of responsivity factors in influencing engagement in treatment programmes and their outcomes. Motivational, affective, cognitive and behavioural factors all appear to be important responsivity characteristics that require consideration in future research and clinical practice. Importantly, as suggested by other authors, these characteristics should not be seen as 'shortcomings of the offender' (Beyko & Wong, 2005, p. 387); rather, they should guide treatment providers in selecting strategies that will enhance treatment engagement and outcomes, and address the unique learning needs of individual offenders, in order to ensure that the principle of specific responsivity is upheld.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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