

University of Groningen

START-ing Risk Assessment and Shared Care Planning in Out-patient Forensic Psychiatry.

Troquete, Nadine

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2014

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Troquete, N. (2014). *START-ing Risk Assessment and Shared Care Planning in Out-patient Forensic Psychiatry. Results from a cluster randomized controlled trial.* [S.l.]: [S.n.].

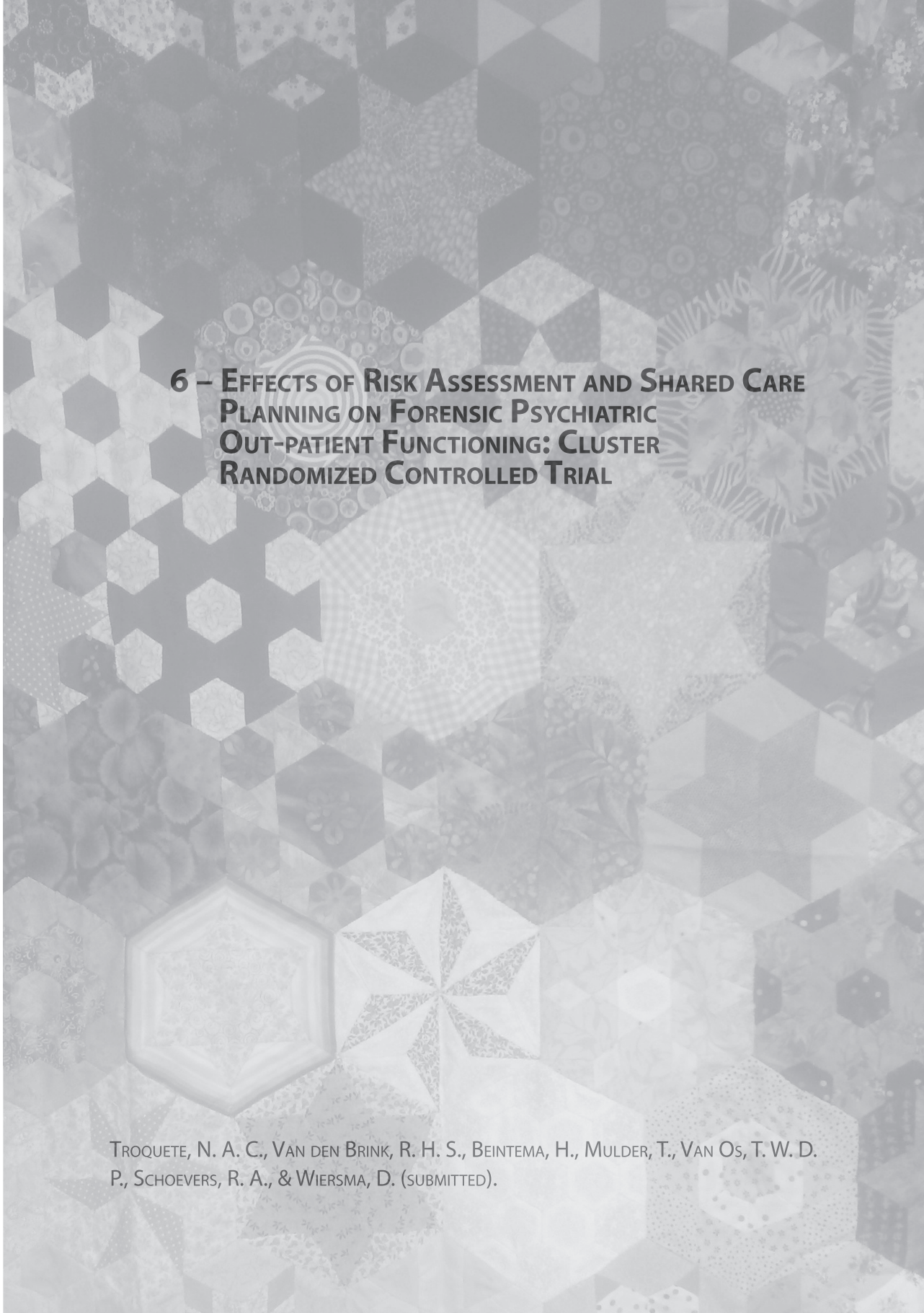
Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.



**6 – EFFECTS OF RISK ASSESSMENT AND SHARED CARE
PLANNING ON FORENSIC PSYCHIATRIC
OUT-PATIENT FUNCTIONING: CLUSTER
RANDOMIZED CONTROLLED TRIAL**

TROQUETE, N. A. C., VAN DEN BRINK, R. H. S., BEINTEMA, H., MULDER, T., VAN OS, T. W. D.
P., SCOEVERS, R. A., & WIERSMA, D. (SUBMITTED).

ABSTRACT

Background: Forensic psychiatry aims to reduce recidivism and to improve quality of life (QoL) and client functioning. Risk assessment instruments and shared decision making (SDM) can be used to achieve these goals. An earlier randomized controlled trial (RCT) showed that a combination of risk assessment and SDM as part of treatment planning had no effect on levels of recidivism.

Aim: Our hypothesis is that the SDM shifted treatment away from risk and towards QoL factors. Therefore, we test here if risk assessment and SDM in treatment planning improve client functioning and QoL.

Methods: Clients of the three participating Dutch out-patient forensic psychiatric services were randomly assigned to one of two treatment arms: in one (n=322) they received care-as-usual (CAU; e.g., individual (psycho)therapy or specialized group treatments); in the other (n=310) clients were engaged in risk assessment and SDM to direct treatment and increase client motivation. Case managers rated functioning and QoL of all clients while consenting also clients completed self-reports on the same.

Results: At baseline high levels of functioning and QoL were reported. CAU improved these significantly. However the use of risk assessment and SDM in treatment planning had no additional significant effect.

Conclusions and implications for practice: SDM did not shift treatment away from risk factors and towards QoL factors. Possible explanations of our findings include problematic implementation, ineffective intervention and a high standard care resulting in ceiling effects.

Forensic psychiatry aims to prevent future violence through treatment and to improve client psychosocial functioning and Quality of Life (QoL). Theories about offending, e.g., the Good Lives Model (Ward et al., 2007), as well as research findings (Bouman et al., 2008; 2009), have demonstrated a relationship between QoL, client functioning and re-offending. Thus, addressing these factors should aid with society's aim of violence prevention and clients' aims of improved functioning and well-being.

Forensic psychiatry uses specific instruments for risk assessment of future violence which originally focused on static, historical factors like early childhood maladjustment. However, such factors provide limited directions for treatment. Therefore, more recent instruments include dynamic factors, like interpersonal relationships, education and health (Diener & Suh, 1997; Williams, 2003). Thus these dynamic risk assessment instruments typically address important aspects of client functioning and QoL. Additionally, both violence prevention and QoL approaches emphasise not only risk reduction, but also promotion of strengths (Ward, Mann, et al., 2007; Williams, 2003). Therefore, a risk assessment instrument like the Short Term Assessment of Risk and Treatability (START; Nicholls et al., 2006; Webster et al., 2006), which incorporates these characteristics, seems highly suited for use in forensic psychiatry as part of an intervention aimed at reducing recidivism and improving client QoL and functioning.

In out-patient forensic psychiatry treatment is often clinically necessary but not legally mandated. This requires special attention to client motivation for treatment (Drieschner & Boomsma, 2008). Shared Decision Making (SDM) has been shown to increase client satisfaction, treatment adherence and QoL, especially in longer lasting treatment relations (Drake et al., 2009; Hamann et al., 2003; Joosten et al., 2008). Therefore it is particularly suited to the needs of out-patient forensic psychiatry. SDM involves at least two participants, usually the clinician and the patient, who share information and try to reach a consensus about future treatment, which is then implemented (Charles et al., 1997; 1999).

In sum, an intervention combining regular risk assessment, with START, with SDM seemed, therefore, suited to the specific needs of out-patient forensic psychiatry, since this setting requires an on-going process of assessment and management of short term, fluctuating risk as well

as attention to client motivation for treatment (van den Brink et al., 2010; Douglas & Skeem, 2005; Drieschner & Boomsma, 2008; Dvoskin & Heilbrun, 2001).

Earlier we investigated the effect of this intervention on violent outcome in out-patient forensic psychiatry, which, contrary to our expectations we could not establish (Troquete et al., 2013). We argued that our intervention, particularly the SDM, might have shifted the focus away from factors predicting violence and towards QoL and client-functioning factors. The current study investigates this hypothesis.

METHODS

DESIGN & SETTING

Data were collected as part of a larger study into Risk Assessment and Care Evaluation (RACE; trial number 1042 at www.trialregister.nl) in out-patient forensic psychiatry between September 2007 and September 2010. RACE is a multisite clustered randomized controlled trial conducted in the northern Netherlands. The three participating services provide treatment for clients with psychiatric needs who have, or are at risk of having, contact with the criminal justice system (Wubs & Wijnen, 2005).

Regular care included medication, individual (psycho)therapy, forensic psychiatric home care, specialised group treatments (e.g., for sex offenders or those with impulse control disorders) and training modules (e.g., addressing social or vocational skills) or any combination of the above. Formal and structured risk assessment was conducted infrequently as part of regular care.

Eligible case managers, with their clients, were randomized to either Intervention or Care-As-Usual (CAU). In the Intervention group, case managers provided regular care but used our protocol to direct future treatment. The protocol consisted of regular risk assessment and SDM of the treatment plan with clients to achieve agreement on treatment goals for the next several months. Follow-up at client level was planned to be 18 months or until either end of care or end of the study, if this was sooner.

Case managers assessed clients at baseline and follow-up on various measures. Clients providing informed consent were anonymously interviewed at baseline and follow-up by trained research assistants blinded to client randomisation status. The Dutch Medical Ethical Committee for Mental Healthcare approved the study. For a more extensive description and flow-chart of the study see Troquete et al. (2013).

PARTICIPANTS

All case managers of the participating services were eligible for the study. We defined case managers as those with primary responsibility for the care planning of their clients. As we expected the intervention to be only effective in longer lasting treatment relations (Joosten et al., 2008), we excluded clients with expected discharge within 6 months or with less than one treatment contact per month. Power analysis based on a pilot study (van den Brink et al., 2010) indicated that 340 clients should be included in each study group (see Troquete et al., 2013 for details).

INTERVENTION

In the RACE-intervention case manager and client first completed separate risk assessments of the client with the START (Nicholls et al., 2006; Webster et al., 2006). The START is a structured professional judgment instrument composed of 20 dynamic items characterised as vulnerabilities and strengths (scored as absent; possibly present; or present). After initial scoring of items, those considered of specific importance to the client, the so called key strengths and critical vulnerabilities, are selected. Case managers were trained by the official translators of the Dutch version of the START ('t Lam et al., 2009) and by the researchers in the structured approach to shared care planning. Clients completed a self-appraisal version of the START developed for this purpose (van den Brink et al., submitted). Case managers clarified any questions clients might have about the instrument or items. Then case manager and client used a formalised treatment plan discussion which resulted in mutually agreeable treatment goals for the next several months. This second step was in line with SDM principles. Case managers were instructed to 1) point out similarities and differences between the items they selected and those selected by the client, 2) motivate their own choices and treatment proposals, and 3) ask clients about their opinions and suggestions

for treatment. Consecutive treatment plan evaluations included a review of previous arrangements.

OUTCOME MEASURES

Case managers completed the Health of the Nations Scale - Mentally Disordered Offenders (HoNOS-MDO; Wing et al., 1996) to assess the health and social functioning of their clients. The 12 items cover behaviour, impairment, symptoms and social problems scored on a 5-point Likert scale ranging from no (0) to severe problem (4). Higher total scores reflect worse functioning (range: 0–48). Internal reliability is acceptable (Cronbach's $\alpha=.79$) and interrater reliability fair to substantial (Intraclass Correlation Coefficients (ICCs) between .29-.96 for individual items; with 8 items $ICC>.61$; Dickens et al., 2007).

Case managers also completed an adapted version of the Global Assessment of Functioning (GAF; range 0–100; APA, 2000; Harrison et al., 1999) with separate ratings for Symptoms (GAF-S) and Disabilities (GAF-D) to assess overall level of functioning. Higher scores reflect better psychosocial functioning (Jones et al., 1995). Interrater reliability is nearly perfect with ICCs for GAF-S and GAF-D $>.95$ (Harrison et al., 1999).

Clients completed various self-assessment instruments addressing QoL and functioning. The Manchester Short Assessment of Quality of Life (MANSA; Priebe et al., 1999) consists of 12 questions on different life domains, answered by the client on a 7-point Likert scale ('couldn't be worse'(1)–'couldn't be better'(7)), and 4 objective questions (yes/no). Higher mean scores (range: 1–7) reflect higher levels of QoL. Internal reliability is acceptable (Cronbach's $\alpha=.74$; Priebe et al., 1999) and construct validity is satisfactory (Björkman & Svensson, 2005).

Clients answered the 8 items of the Client Satisfaction Questionnaire (CSQ-8; Larsen et al., 1979) on a 4-point Likert scale (response descriptors vary). After recoding, higher scores reflect more satisfaction with treatment (range mean score: 1–4). Internal consistency is excellent (Cronbach's $\alpha=.91$; Attkisson & Zwick, 1982).

The 53 items of the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) describe psychiatric symptoms, with severity rated on a 5-point Likert scale ('not at all'(0) to 'a lot'(4)). Three indices of overall disease

severity are commonly reported: the average score of all items (range: 0–4), the number of symptoms experienced (all items with non-zero score; range: 0–53) and the severity of these symptoms (range: 0–4). Higher scores reflect more severe psychiatric complaints. Internal reliability is good (Cronbach's $\alpha > .80$) and construct and discriminant validity are satisfactory (de Beurs & Zitman, 2006).

Client's impulsiveness was self-assessed with the Barratt Impulsiveness Scale (BIS-11; Barratt, 1959; Patton et al., 1995), which describes 30 impulsive behaviours and preferences scored on a 4-point Likert scale ('never'(1)–'always'(4)). Higher sum scores (range: 30–120) reflect higher levels of impulsivity. Good internal consistency and test-retest reliability have been reported (Cronbach's $\alpha = .83$; Spearman $\rho = .83$; Stanford et al., 2009).

Lastly, clients rated the 29 items of the Buss-Perry Aggression Questionnaire (BPAQ) on a 5-point Likert scale ('totally disagree'(1)–'totally agree'(5); Buss & Perry, 1992). Higher mean total scores reflect higher levels of aggression. Internal consistency and stability over time are good (Cronbach's $\alpha = .83$ – $.91$; test-retest reliability: $.54$ – $.76$; Hornsveld et al., 2009).

ANALYSES

All outcome variables were calculated following instrument manuals and instructions before entering them in the analyses. Differences between baseline and follow-up scores were tested with paired samples T-tests and effect sizes (Pearson's r) were calculated for these differences using SPSS 20.0.0.1 (SPSS, 2012). Effect sizes $< .10$ indicate that there is no effect, those between $.10$ and $.29$ are considered small, those between $.30$ and $.49$ medium and those $\geq .50$ large (Cohen, 1992). The intervention effect was tested with separate intention-to-treat multilevel linear regression analyses (Snijders & Bosker, 1999), using MIWin (Rasbash et al., 2011). Clients were the level 1 units of analysis, case managers were entered on level 2 as random factor. All models were corrected for duration of follow-up and baseline scores of the measure under examination.

RESULTS

PARTICIPANTS

We randomized 58 eligible case managers (59% female, on average 42 years old, $sd=10$, range: 22–59), responsible for a total of 1127 clients, to either CAU (case managers: $n=29$; clients $n=569$) or Intervention (case managers: $n=29$; clients: $n=558$).

For 44% ($n=492$) of eligible clients no baseline rating was completed by case managers before end of client's care or end of study-inclusion period. A further 3 clients were affected by case manager drop-out, resulting in the actual inclusion of 632 clients (Intervention: $n=310$; CAU: $n=322$) all of whom were assessed by case managers at follow-up. In total 221 (35%) clients consented to an interview at baseline (Intervention: $n=133$; CAU: $n=88$) while 169 clients were willing to be re-interviewed at follow-up (27%; Intervention: $n=97$; CAU: $n=72$).

Most clients were men (91%), of mean age 39.6 years ($sd=11.9$, range: 18–82), 55% received treatment voluntarily, 28% were on probation, and 16% had a criminal treatment order. The majority had committed a violent (54%), sex (32%), or property (32%) offence. Generally clients were diagnosed with substance related disorders (35%), impulse control disorders (26%), paraphilia (20%), or mood disorders (19%). Only 7% had a psychotic disorder. Most had a personality disorder (Cluster A PD: 1%; Cluster B PD: 26%, Cluster C PD: 10%, PD Not Otherwise Specified: 30%). Clients in the intervention group were more often male (94.2% v. 87.0%) and more often had a history of property (36.7% v. 28.4%) or substance related offences (15.2% v. 8.7%), compared to clients in the control group (all $p<.05$). Intervention and CAU groups did not differ in duration of follow-up (mean=16.2; $sd=5.3$, range 6–38 months).

Clients with multiple interventions had been in treatment for a significantly shorter period before inclusion than those without interventions (19.5 months v. 30.2, $p=.02$). They had more often committed a sex offence with a victim aged 16 or under than clients with only one or no interventions (30.6% v. 19.7%; $p=.05$). Additionally, those without intervention were less likely than those with at least one, to have committed a sexual offence with victims whose age was either unknown or over 16

Table 6.1: Treatment effects on case manager rated and client self-reported outcomes

		<u>Baseline</u>	<u>Follow-up</u>	p	r
		mean (sd)	mean (sd)		
<i>Case manager rated^a:</i>					
HoNOS–MDO	<i>Sum score</i>	9.4 (5.8)	7.7 (6.0)	<.01	.27
GAF	<i>Disabilities</i>	58.2 (13.9)	60.6 (13.0)	<.01	.17
	<i>Symptoms</i>	62.0 (13.7)	61.2 (12.3)	.10	.07
<i>Client self-report^b:</i>					
MANSA	<i>Mean score</i>	4.8 (0.8)	4.9 (0.9)	<.01	.44
CSQ-8	<i>Mean score</i>	3.2 (0.6)	3.3 (0.6)	.08	.14
BSI	<i>Mean total score</i>	0.9 (0.7)	0.7 (0.6)	<.01	.35
	<i>Number of symptoms</i>	24.7 (13.7)	20.1 (14.4)	<.01	.40
	<i>Severity of symptoms</i>	1.7 (0.6)	1.5 (0.5)	<.01	.27
BIS-11	<i>Sum score</i>	66.8 (10.9)	63.8 (9.7)	<.01	.28
BPAQ	<i>Mean score</i>	2.8 (0.7)	2.6 (0.8)	<.01	.30

^a: Case manager rated outcomes; at baseline and follow-up: n=632. ^b: Client rated outcomes; at baseline: n=221; at follow-up: n=169. HoNOS–MDO : Health of the Nations Outcome Scale – Mentally Disordered Offenders; GAF: Global Assessment of Functioning; MANSA: Manchester Assessment of Quality of Life; CSQ-8: Client Satisfaction Questionnaire 8; BSI: Brief Symptom Inventory; BIS-11: Barratt Impulsivity Scale 11; BPAQ: Buss-Perry Aggression Questionnaire.

(14.5% v. 23.5% $p=.06$) and to participate in baseline (25.7% v. 52.2%; $p<.01$) and follow-up interviews (19.3% v. 37.8%; $p<.01$). Except for a significant difference on the sum of the HoNOS-MDO (mean=10.2 v. 8.5, $p<.01$), CAU and Intervention groups did not differ on any of the measures at baseline.

FIDELITY TO STUDY PLAN

Most clients in the Intervention group received the intervention at least once ($n=201$; 65%) with a substantial minority ($n=72$; 23%) receiving it multiple times as planned (range 2–4; total number of interventions=297). On average, 71% of trained elements could be observed in treatment plan discussions (see Troquete et al., 2013 for details).

TREATMENT AND INTERVENTION EFFECTS

Generally, clients had better QoL and functioning at follow-up, although symptoms as measured with the GAF (GAF–S) and client satisfaction with

care (CSQ-8) did not improve during treatment. Effect sizes ranged from none ($r=.07$) for GAF-S to medium ($r=.44$) for the MANSA, with most being in the small to medium range (see table 6.1).

As expected, all baseline scores were significantly correlated with, and predictive of follow-up scores on the same outcome measure (all $p<.01$). Intention-to-treat multilevel linear regression analyses showed no significant effect of the intervention on the various outcomes (all $p<.10$; see table 6.2).

Table 6.2: Multilevel linear regression analyses of the intervention effect for case manager rated and client self-reported outcomes

	Duration follow-up			Baseline score			Intervention (yes)		
	β	sd	p	β	sd	p	β	sd	p
<i>Case manager rated^a</i>									
HoNOS-MDO	-0.01	0.09	.56	0.43	0.11	<.01	-0.34	1.19	.61
GAF-D	-0.18	0.23	.78	0.35	0.12	<.01	2.07	3.16	.26
GAF-S	0.01	0.24	.49	0.40	0.13	<.01	-2.64	3.25	.79
<i>Client self-report^b</i>									
MANSA	-0.02	0.02	.89	0.41	0.16	<.01	-0.25	0.26	.82
CSQ-8	-0.01	0.01	.86	0.58	0.14	<.01	-0.20	0.13	.93
BSI	0.01	0.01	.12	0.74	0.13	<.01	-0.10	0.15	.74
BIS-11	0.01	0.15	.46	0.72	0.09	<.01	0.22	2.00	.46
BPAQ	0.00	0.01	.36	0.81	0.10	<.01	0.03	0.14	.43

^a: Case manager rated outcomes; n=632. ^b: Client rated outcomes; n = 169. HoNOS-MDO: Health of the Nations Outcome Scale – Mentally Disordered Offenders; GAF: Global Assessment of Functioning; MANSA: Manchester Assessment of Quality of Life; CSQ-8: Client Satisfaction Questionnaire 8; BSI: Brief Symptom Inventory; BIS-11: Barratt Impulsivity Scale 11; BPAQ: Buss-Perry Aggression Questionnaire.

DISCUSSION

We hypothesized that dynamic risk assessment combined with SDM of care planning would result in the selection of better or more suitable treatment for clients, and thus would have positive effects on their QoL and psychosocial functioning. During treatment clients improved on most measures, reporting increased QoL and functioning at follow-up. Notably, neither client satisfaction with care nor case manager rated symptoms improved. Possibly the enduring nature of mental disorders makes it difficult to reduce the associated symptoms, even though QoL may improve (Priebe et al., 2007). No improvements attributable to the intervention were found, that is, risk assessment combined with shared care planning does not result in better client outcome. Possible explanations included

ineffectiveness of the intervention, imperfect implementation and study group characteristics. These are discussed below.

First, the intervention may have been ineffective at improving client outcome due to high standard regular care which might already incorporate (informal) client involvement. If so, the intervention only formalised existing practices. This is possible since significant treatment effects were obtained with CAU for both outcomes of client functioning and recidivism (Troquete et al., 2013).

Second, implementation was problematic as reflected in the small majority of eligible clients (56%) who were included and the marked delay in their baseline assessments (on average 2 years). We aimed to shape the therapeutic relationship from the beginning. This often was proved impossible. Additionally, we might have been unable to change it once it was formed. Moreover, this long period of CAU could have increased QoL and client functioning to satisfactory levels before client inclusion. Baseline scores on the various measures support this since these were similar to, if not better, than those reported for non-forensic community mental health settings (Attkisson & Zwick, 1982; de Beurs & Zitman, 2006; Bjørngaard et al., 2007; Mulder et al., 2004; Priebe et al., 1999; Salvi et al., 2005; Stanford et al., 2009). For both study groups effect sizes for additional improvements were small to medium (see table 6.1). These improvements could still be clinically relevant. However, the degree to which the intervention could achieve further improvement might have been limited (ceiling effect).

Any potential intervention effect was probably further reduced by imperfect implementation making it difficult to statistically establish a clinically relevant effect.

The proportions of clients receiving no intervention (35%) or receiving it only once (42%) reflect this. In the former group one would expect no effect, in the latter at most a reduced effect. Notably, the positive effects of SDM have only been demonstrated in longer lasting treatment relationships where SDM was used repeatedly (Joosten et al., 2008; Priebe et al., 2007). However, in our earlier study examining the effect of the intervention on violent outcome we examined if the frequency with which clients received the intervention had influenced our findings, and

concluded that this was unlikely (Troquete et al., 2013). This makes it also unlikely that imperfect implementation, though the main limitation of our study, can account for the current findings.

Case managers endorsed the intervention itself but were less committed to various aspects of the study, mostly objecting to the more time consuming study tasks, such as asking clients for participation in the interview (for a more extensive discussion see: Troquete et al., 2013). Such limited motivation for tasks related to implementation and evaluation further complicate the essential testing of the intervention in clinical practice. Due to our study design, which combined risk assessment with SDM, we were unable to examine the independent effects either might have had on client functioning, thus limiting our conclusions. However, the randomized controlled trial design also is our main strength, even more so since it was conducted in clinical practice. Moreover, to the authors' knowledge, it is the first such trial examining the effect of risk assessment combined with SDM on recidivism and client QoL and psychosocial functioning.

Earlier we suggested that no effect on reduced recidivism attributable to the intervention could be established due to a shift in treatment from risk to QoL factors (Troquete et al., 2013). The current study shows that this was not the case. Even though general treatment effects were found for both recidivism, QoL and client functioning, none were increased by the intervention. This could be due to problematic implementation, an ineffective intervention, or an already high standard of care. Currently we cannot determine which. However, previous studies and theories established an association between higher levels of satisfaction with care, general functioning and QoL with reduced recidivism (Bouman et al., 2009; Ward, Mann, et al., 2007). Therefore it is encouraging that clients in out-patient forensic psychiatry in the Netherlands not only reported high levels of functioning on these factors, but also improved further with regular treatment.

