Effectiveness research CoVa

Cognitive Skills Training (CoVa)

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Summary
Doeltreffendheid van de cognitieve vaardigheidstraining (CoVa) voor justitiabelen
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Introduction
The objective of the Ministry of Security and Justice is to increase security in the Netherlands and to keep the rate of reoffending amongst convicted criminals as low as possible. This is done by, amongst other methods, screening perpetrators with regard to the probability of recidivism by using scientifically based behavioural measures that focus on criminogenic factors that influence the risk of recidivism. Cognitive disorders are one of the criminogenic factors that correlate with repeat offending. Therefore, in 2003, the British cognitive behavioural offending programme ‘Enhanced Thinking Skills’ was introduced to the Netherlands under the name ‘Cognitieve Vaardigheidstraining’ (Cognitive Skills Training), or CoVa for short.

CoVa
The CoVa focuses on cognitive skills that are necessary in order to independently live, develop and function in society. Within the CoVa, the participants work on four key objectives:
- Impulse control
- Solving problems rationally
- Perspective taking
- Moral and critical reasoning and recognising your own responsibility for your behaviour.

The CoVa programme consists of 20 group sessions for 12-14 participants. Every course is run by two regular trainers and one stand-by trainer. The course lasts for 10 weeks and is intended for offenders with at least a low to average recidivism risk and a demonstrable disorder with regard to cognitive skills. They must be over 18 years of age and have sufficient command of the Dutch language. The programme is provided in an inpatient (within prison walls to offenders within the framework of their detention/probation process) or outpatient setting (outside prison to offenders on probation). The course is taught given by specially trained CoVa trainers from 3RO, a collective of three probation organisations. Reclassering Nederland (RN) is the licensee and monitors the quality of the training.

In 2007, the CoVa was fully recognised by the ‘Erkenningscommissie Gedragsinterventies Justitie’ (Dutch Correctional Services Accreditation Panel for Behavioural Interventions). One of the conditions placed by the ‘Erkenningscommissie’ was that within five years of the recognition, the effectiveness of the behavioural interventions must be studied. This entails that research must be conducted into whether and to what degree the participants are making progress with regard to the programme objectives.

Effectiveness research
The DSP-group carried out the effectiveness research between December 2010 and September 2012, upon commission by the WODC (Scientific Research and Documentation Centre), part of the Ministry of Security and Justice. The research involved 1,404 offenders (801 inpatient participants and 603 outpatient participants) who completed the CoVa programme between January 2008 and May 2012 and filled in pre- and post-treatment measurements. This accounts for 58% of the participants who completed the CoVa programme in this period.

The effectiveness research focused on the following main questions:
1. To what extent was the CoVa programme applied consistently and according to plan?
2. What is the effect of CoVa on the cognitive skills of impulse control, problem solving, perspective taking and moral/critical reasoning?
To what degree do the characteristics of the offenders, the setting, the programme integrity and the preconditions correlate to the progress in relation to the programme objectives?

Research instruments
The programme integrity of the courses was determined based on the scoresheets filled in by the intervention coaches from RN during the video monitoring of the CoVa course. The sessions are assessed in accordance with four key factors: compliance with the programme handbook, use of effective training skills, group work and skills & responsiveness. The inter-rater reliability of the instrument was assessed with the aid of the intra-class correlation coefficient. The responsiveness subscale proved to be insufficiently reliable, and was therefore not included in the research. The ICC for the overall programme integrity (excluding responsiveness) was good (0.76). The presumed precondition ‘continuity of the training’ was measured based on data from RN about the number of cancelled sessions and the number of sessions that are conducted by stand-in trainers.

The effectiveness was researched with the aid of a test battery of five questionnaires that measured the cognitive skills targeted by the training (Eysenck’s Impulsivity Scale, CAPL subscale of the Barratt Impulsiveness Scale 11, Social Problem Solving Inventory-Revised (SPS-R), Gough Socialisation Scale and Locus of Control) in a pre- and post-treatment design involving an experimental group. Furthermore, a questionnaire was conducted that measured social desirability (the social desirability subscale of the Treatment Motivation Scale-forensic). The reliability of the questionnaires in this research is satisfactory to good. The questionnaires are taken in groups by the intervention coach during an introductory meeting prior to the training (the pre-treatment measurement) and during an evaluation meeting after the training (the post-treatment measurement).

Programme integrity

Programme integrity of the courses
Between 2008 and the first four months of 2012, the CoVa has been conducted 307 times (154 inpatient and 153 outpatient courses). An assessment of the programme integrity was possible for 293 (95%) of these courses, based on video monitoring. The average programme integrity is satisfactory. This entails that on average, the training sufficiently complies with the protocol. The skill level of the trainers is satisfactory on average, although there is room for improvement with regard to particular aspects. Around two-thirds (195) of the courses meet the programme-integrity requirements defined in this research. This means that none of the sessions achieved a score of less than 2.5 out of 5 for programme integrity, that there was a minimum of four participants upon completion of the course and that a minimum of four sessions were assessed.
Cancellation of sessions is infrequent. Cancellation of one or more sessions occurred in just nine of the 293 courses. In approximately two-thirds of the courses, all sessions were conducted by the two regular trainers or a maximum of four sessions were conducted by a regular stand-in. In the programme handbook, there is nothing that says that the sessions must be given by the two regular trainers.

To what degree do the participants meet the inclusion criteria?
The inclusion criteria for the CoVa are as follows: participants must have a below average recidivism risk or greater as measured by the RISc, they must have demonstrable cognitive deficiencies based on the Thought Patterns, Behaviour and Skills section of the RISc, they must be 18 years of age or above and they must have sufficient command of the Dutch language. Just over two-thirds (68%) of the offenders in the experimental group complies with all inclusion criteria. These offenders have an RISc score that complies with the criteria. For the other 32%, either no score is available or the score does not meet the criteria. 11% of the participants have a low recidivism risk, and for 5%, no data is available with regard to the risk of recidivism. Approximately a quarter of the participants display no demonstrable cognitive deficiencies based on the RISc (23% do not meet the criteria and for 3%, no score is available). The RISc is an instrument that supports probation officers during the assessment phase. Based on their professional judgement, they can recommend participation in CoVa even for offenders whose RISc scores do not meet the inclusion criteria.

Based on the programme-integrity data and the inclusion criteria, it was possible to select 595 offenders (380 inpatient and 215 outpatient participants) who completed the CoVa as intended. This group of offenders make up the CoVa group. These participants have all received the CoVa programme in accordance with the programme-integrity criteria and they all meet the inclusion criteria.

Programme objectives

What is the effect of CoVa on the cognitive skills (impulse control, problem solving, perspective taking and moral/critical reasoning) of the participants upon completion of the course?
The CoVa course is a short training programme lasting 10 weeks (two sessions per week) that focuses on a target group that is difficult to train. Overwhelmingly significant effects within this timescale are therefore not realistic. The participants in the CoVa courses show statistically significant changes in the desired direction with regard to rational problem solving, impulse control/planning and perspective taking. We observed no change, either positive or negative, with regard to moral or critical reasoning (locus of control). In accordance with the acceptable norms within social-scientific research, the effect on rational problem solving can be assessed as ‘small to moderate’ and the effect on impulse control and perspective taking can be assessed as ‘marginal to small’.

There was also a group (around 15%) of participants whose answers to the questionnaires displayed a deterioration in cognitive skills. Further analysis showed that this group generally gave a larger proportion of socially desirable answers during the baseline measurement.
From this, we can derive that prior to the training, these offenders indicated less cognitive deficiencies in the questionnaires than they actually had. After the training, the degree of socially desirable answers in this subgroup had been reduced to a statistically significant degree, resulting in them having a more realistic view of their cognitive skills upon completion of the programme. Consequently, the questionnaires displayed a false decline in cognitive skills. Based on these findings, we can assume that the CoVa training has helped these participants to develop greater awareness of their problems. This also suggests that the true effect of the training on all participants may be greater than is indicated by this research.

Based on these findings and the conclusion that a group of CoVa participants completed the questionnaire incompletely, resulting in their questionnaires being unusable in the research, it would therefore be advisable to examine the composition of the test battery in greater detail during future effectiveness research. A sizeable test battery is being used, and the tests are conducted during a group meeting. The expansion of the test battery requires a significant investment of time from both the participants and the intervention coaches. Furthermore, there is also the question of whether filling in the tests in groups results in lesser quality of the answers to the questionnaires. It would be sensible to consider which sections are truly necessary and whether other methods could be used in order to measure the change in cognitive skills.

To what degree do the characteristics of the offenders, the setting, the programme integrity and the preconditions correlate to the progress in relation to cognitive skills?

With the aid of multiple regression analyses, we have investigated whether – after controlling for social desirability - programme integrity, preconditions (conduct in compliance with treatment protocol, compliance with inclusion criteria, setting, number of sessions with a stand-in trainer, combination with other training courses), risk profile of the offenders and background characteristics correlate with the progress measured with regard to cognitive skills. The moderator variables included in this research display no significant contribution to the change in cognitive skills immediately upon completion of the CoVa. The observed differences in programme integrity, the differences in the risk profile of the offenders and the other background variables account for just 1-2% of the variance in the results of the course. Although statistically significant, this contribution is marginal. This means that the results of the training arise due to other factors.

In the What Works literature, the assumption is made that programmes will have better results with regard to recidivism if consideration is given to the risk principle (higher-risk offenders receive more intensive programmes), the needs principle (adjustment according to criminogenic factors) and the integrity principle (the programme is conducted by the book). During this research, in contrast to the expectations based on the What Works literature, we discovered that the programme integrity and inclusion criteria do not display a significant contribution to the change in cognitive skills immediately upon completion of the training. This could be explained by a number of reasons. The first possibility for the failure to detect correlation between programme integrity and the change in cognitive skills is the method in which programme integrity was measured during this research. Programme integrity was measured by examining the degree to which the programme handbook was complied with, the effectiveness of the methods used by the trainers and the degree of group work. In addition to these aspects, responsiveness of the trainer is also an important part of programme integrity. In this research, we were unable to investigate the correlation of
responsiveness as the responsiveness subscale was insufficiently reliable. It would therefore be useful to investigate the influence of responsiveness on the programme objectives in greater detail.

A second possible reason is that the inclusion criteria as measured by the RISc may not be sufficient to determine whether offenders are suitable for inclusion in the target group. The research shows that around one-third of the offenders do not meet the criteria based on their RISc results or have no RRAS data available to determine whether they meet the criteria. These participants were referred to the CoVa programme based on the professional opinion of the probation officers. For this reason, we cannot conclude from this research that compliance of the offenders with the inclusion criteria is unimportant and/or whether the CoVa has been carried out with sufficient programme integrity.

We had also expected the participants in outpatient sessions to display more significant change than those in the inpatient sessions, as they are able to put the skills immediately into practice in society. However, the difference between the groups is marginal. Within the group of participants who received the CoVa as intended (the CoVa2 group), the outpatient participants displayed more change on average with regard to rational problem solving than the inpatient participants. However, this finding was not confirmed by the multiple regression analysis. The influence of this variable disappears as a result of correlation with the other variables in the model. We believe it would be wise to make the setting of the training a variable in the effects study in order to assess whether it may have a greater influence in the long-term. After all, the outpatient participants can apply newly learned skills in practice straight away. For the inpatient participants, this factor is dependent on how long they must remain incarcerated following completion of the training. For this reason, the skills of the outpatient participants may take root better.

**General conclusion**

In summary, we conclude that the CoVa courses display a statistically significant improvement with regard to three of the four cognitive skills that CoVa targets. The effect on rational problem solving is ‘small to moderate’ and the effect on impulse control and perspective taking is ‘marginal to small’. The change in cognitive skills immediately upon completion of the training does not correlate substantially with the measurements relating to programme integrity, the defined preconditions, the setting of the training (intramural or extramural), the degree of the participants’ compliance with the inclusion criteria and the background details. This means that with the aid of the CoVa training, the expected effect with regard to rational problem solving was achieved in - at the very least - the group studied, and in this regard, it is effective enough to continue. During possible future development of CoVa, further research could be conducted into how the effects can be multiplied. Furthermore, it would be wise to evaluate whether the research can be conducted in a more efficient way.

**Implications and prelude to the effectiveness research**

The research in questions investigates the effectiveness of CoVa. The next step is to conduct research into the effect of CoVa on the recidivism rates of the participants. The recidivism rate two years after completion of the training will be investigated by the WODC. In the current research, preparations have been set out for the effects study. The findings in the current study can also have a number of implications for the effect study.
In this research, an experimental group was created consisting of participants who had received the CoVa training in accordance with the handbook (the CoVa² group). Furthermore, a control group was formed based on the inclusion criteria relating to the recidivism risk and demonstrable cognitive deficiencies as measured by the RISC. These offenders did not receive CoVa training. The CoVa² group is comparable with the control group with regard to inclusion criteria. The size of both groups is large enough to indicate the expected ‘small to moderate’ effect on recidivism with sufficient statistical significance.

However, prior to the effects study, it must be checked that the control group’s initial level of cognitive skills does not differ from the experimental group. For this reason, a baseline measurement (pre-treatment) will be taken for a limited control group. It proved difficult to find candidates for the control group who were willing to complete the test battery. It was therefore not possible to carry out a pre- and post-treatment measurement for the control group with regard to cognitive skills.

The research focused only on the correlation between programme integrity and inclusion criteria immediately upon completion of the training course. It can therefore not be automatically concluded that the programme integrity will have no long-term influence on the recidivism rate and the degree to which the skills take root. The same applies to the degree to which the participants meet the inclusion criteria. It is therefore advisable to consider the influence of the programme integrity and the inclusion criteria during the recidivism effects study. Furthermore, it is worth considering investigation into whether participants that were not included in the experimental group during the effectiveness research differ from the participants in the experimental group with regard to the rate of recidivism.
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