Quality of Neuropsychological Assessment: Effect of Feedback on Neuropsychological Performance and Treatment-outcome

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To examine whether providing feedback to patients immediately after scoring in a non-valid range on a SVT would have an impact on subsequent symptom validity and neuropsychological test performance. Furthermore, we examine treatment-outcome as a...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Neurological disorders NEC
Study type	Interventional

Summary

ID

NL-OMON47362

Source
ToetsingOnline

Brief title
Quality of Neuropsychological Assessment

Condition

- Neurological disorders NEC
- Dementia and amnestic conditions
- Legal issues

Synonym
underperformance; invalid performance

Research involving
Human

Sponsors and support

Primary sponsor: Medisch Universitair Ziekenhuis Maastricht
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Feedback, Outcome, Symptom validity, Treatment

Outcome measures

Primary outcome

The percentage of patients that score better on a repeated SVT (i.e., ASTM) and subsequent neuropsychological testing (i.e., VLT and SCWT) after providing feedback on SVT failure (FB+), compared to the percentage of patients that show improvement on these tests that were not given this feedback (FB-).

Secondary outcome

Secondly, we want to investigate to what extent SVT failure and external gain expectations in this sample predicts treatment-outcome according to self-reported health status (i.e., SF-36) and medical consumption (i.e., iMCQ) three months after the neuropsychological assessment.

Study description

Background summary

A significant minority of patients does not give an accurate or truthful account of their symptoms and cognitive capacities. Various reasons for this behavior are described in the literature, such as unwillingness to cooperate with the assessment due to external gain (e.g., financial benefits), or due to psychological disorders (e.g., urge to play a patient role) (Carone, Iverson & Bush, 2010). Invalid symptom reporting may lead to false diagnosis and, consequently, inadequate treatment. An invalid presentation of symptoms and cognitive capacities can be measured using specialized symptom validity tests (SVTs). There are two kinds of SVTs; (a) measures for invalid symptom

reporting, and (b) measures for determining invalid performance on neuropsychological tests (i.e., underperformance) (Dandachi-FitzGerald, et al., 2011). Although progression is made in diagnosing underperformance during neuropsychological assessment, little is known about how to deal with invalid performance in the clinical setting. To our knowledge, Suchy et al. (2012) were the first to examine whether providing feedback to patients who failed an SVT had an impact on subsequent test performance. They found that two thirds of Multiple Sclerosis patients who were presented with feedback about their underperformance showed significant improvement in both repeated SVT performance, but also on subsequent memory testing. This study had several limitations. First, assignment between feedback- and no-feedback groups was not randomized. Second, the SVT was only repeated in case the patient scored below the cut-off. Therefore, the potential test-retest effect on re-administration of the SVT remains uncertain. Furthermore, although psychometric properties of SVTs is extensively studied and documented, currently very little is known about the relationship between SVT failure and treatment-outcome in health care. Horner, vanKirk, Dismuke, Turner and Muzzy (2014), are the first to study the relationship between SVT failure and healthcare utilization. They found that SVT failure is associated with higher healthcare utilization, compared to patients passing an SVT. Goedendorp et al. (2013), found that patients with chronic fatigue syndrome (CFS) showing underperformance during neuropsychological assessment, did drop out of the cognitive behavioral treatment more often compared to patients who were not underperforming. On a related note, Van Egmond, et al. (2002; 2005) found that psychiatric patients, who expected external gains from being in treatment, benefited less from their treatment than those patients that did not have these expectations. In line with these finding, Sharpe et al. (2009) found that health-related financial benefits predict poor treatment outcome in neurology outpatients with symptoms unexplained by disease. To summarize, although the body of evidence is limited, these results suggest that underperformance and external gain have a potential negative influence on treatment-outcome.

Study objective

To examine whether providing feedback to patients immediately after scoring in a non-valid range on a SVT would have an impact on subsequent symptom validity and neuropsychological test performance. Furthermore, we examine treatment-outcome as a result of external gain and underperformance.

Study design

Randomized single-blind controlled trial (RCT)

Intervention

In case the patient passed the ASTM, the following feedback is provided:

No feedback on performance (FB-). Verbatim, in Dutch:
* In het kader van het onderzoek zal ik enkele testen die ik zojuist bij u heb afgenomen herhalen*.

In case of ASTM failure, the technician uses a concealed envelope to offer the patient the allocated regimen (i.e., FB+ or FB-):

Specific feedback on performance (FB+). Verbatim, in Dutch:
* In het eerste deel van het onderzoek presteerde u lager dan verwacht. Daarom zal ik enkele testen die ik zojuist bij u heb afgenomen herhalen*.

No feedback on performance (FB-). Verbatim, in Dutch:
In het kader van het onderzoek zal ik enkele testen die ik zojuist bij u heb afgenomen herhalen.

Study burden and risks

Patients referred for neuropsychological assessment will be included. Most of the measures used in this study are among the standard neuropsychological test used in the clinic. After randomization, the technician will provide feedback on the ASTM performance (see also the flow chart of the study procedure, p.16). This will take about 2 minutes. It is common for the technician to optimize the assessment conditions (e.g., motivate the patient, make sure no distracting external influences are present, etc.). It is our experience that motivating the patient (i.e., providing feedback on test performance during the assessment) is not perceived as stressful by the patient. After the technician provided the feedback, the first tests are repeated and the neuropsychological examination is continued: In case of ASTM failure, all three tests (ASTM, digit span and word fluency) are repeated. In case the patient passed the ASTM, digit span and word fluency are repeated. The Short Form Health-Survey (SF-36) and iMTA Medical Consumption Questionnaire (iMCQ) will be administered two times: the first time during the neuropsychological assessment and a second time after three months, during which these two questionnaires are sent to the patients by e-mail. The patiënts can also fill out these questionnaires by paper-pencil upon request. There will be no direct benefit for the participants.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

- patients clinically referred for, and cognitively capable of undergoing full neuropsychological assessment
- * 18 years old
- Mental competency to give informed consent
- Dutch proficiency
- A minimum of 8 years of formal schooling and no history of mental retardation

Exclusion criteria

Severe and obvious cognitive problems (see p. 12 of the study protocol)

Study design

Design

Study type: Interventional

Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	17-02-2016
Enrollment:	512
Type:	Actual

Ethics review

Approved WMO Date:	23-12-2015
Application type:	First submission
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)
Approved WMO Date:	14-08-2018
Application type:	Amendment
Review commission:	METC academisch ziekenhuis Maastricht/Universiteit Maastricht, METC azM/UM (Maastricht)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL52549.068.15