

Measuring aggression regulation: Development of the Method of Stamp Strike Shout: Clinical sample

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In this study a performance-based psychomotor measuring instrument of aggression regulation is developed for clinical and research purposes and tested on its psychometric quality. This instrument is called the *Method of Stamp Strike Shout* (MSSS)...

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|------------------------------|-----------------------------------|
| Ethical review | Approved WMO |
| Status | Recruiting |
| Health condition type | Eating disorders and disturbances |
| Study type | Observational non invasive |

Summary

ID

NL-OMON47897

Source

ToetsingOnline

Brief title

MSSS

Condition

- Eating disorders and disturbances

Synonym

anorexia nervosa, eating disorders

Research involving

Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Groningen

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: aggression regulation, extraversion, instrument development, introversion

Outcome measures

Primary outcome

The instrument consists of three different subtests

- Stamp: in the force plate a force transducer measures the force that is caused by a stamp. The impulse, which is the amount of movement that is brought on the force plate, is the main parameter for the Stamp-subtest.
- Strike: in the punching bag an accelerometer measures the acceleration of the punching bag in two horizontal directions. These two accelerations and the weight of the punching bag are used to calculate the impulse, which is the amount of movement, that is brought on the punching bag during the strike. The impulse is the main parameter for the Strike-subtest.
- Shout: the microphone measures the level of decibel that the subject produces while shouting. The amplitude is the main parameter for the Shout-subtest.

The different subtests of the instrument will be executed in a pyramid shape way; the participants will express their force on 25%, 50%, 75%, 100%, 75%, 50% and 25% of their total force in stamping, striking and shouting.

For the outcome of testing 100 healthy subjects we refer to Boerhout et al (2018a, accepted by PLOS ONE), added as an appendix.

Secondary outcome

MSSS measures will be compared with measures of introversion and extraversion

and control over introversion and extroversion as measured with the Self-Expression and Control Scale (SECS; Spielberger et al 1987).

Study description

Background summary

There is an increased interest in medical research on anger coping strategies (Trnka & Stuchlíková, 2011). Turning one's anger inwards instead of expressing it, is found to have severe consequences for one's health and seems primarily caused by a tendency to avoid negative consequences (Smits et al., 2004). Anger-in refers to inhibition of aggression, whereas anger-out refers to overt aggressive behaviour. Anger-control refers to the ability to modulate emotional and behavioural expression of anger. These categories are usually assessed by subjective self-report measures such as the State-Trait Anger Expression Inventory, or STAXI (Spielberger, 1988). Recently developed questionnaires show more diversity of anger coping strategies and pay more attention to the context of daily life and interpersonal relationships, including gender differences (Trnka & Stuchlíková, 2011). Despite adaptations, self-report measures remain limited by response biases (Bartz, Blume & Rose, 1996). Additional performance-based measures are needed to estimate behavioural and non-verbal aspects of anger. Observational methods in laboratory or real-life situations may be a next step towards ecologically valid measurement of anger coping, taking into account that a negative observer bias may interrupt natural anger expressions.

Study objective

In this study a performance-based psychomotor measuring instrument of aggression regulation is developed for clinical and research purposes and tested on its psychometric quality. This instrument is called the *Method of Stamp Strike Shout* (MSSS) and will be developed to be applied in addition to self-report scales. Recorded are the impulses of hitting a punching bag, stamping on a force plate, and shouting in a microphone. The MSSS offers the opportunity to observe the body in action and to combine quantitative outcome measures with qualitative observation and post-test interview. Goal of the MSSS is to provide patient and therapist with feedback on body performance for diagnostic as well as treatment purposes, targeted on learning to apply expressive movement and controlled force production as a vehicle for aggression regulation. Development of the MSSS is part of a larger research on the effect of psychomotor therapy and aggression regulation on patients with eating

disorders (METTIG nr. 9215 / CCMO nr. NL28665.097.09).

Study design

The MSSS was tested in an explorative study in corporation with the Center of Human Movement Sciences, University of Groningen. The data on 100 healthy participants (students) have been analysed, that will be used as a reference (Boerhout et al., 2018a, accepted by PLOS ONE). Scores on maximum force production and control over increasing and decreasing force were linked to a self-report measure on anger-in, anger-out, and anger-control, namely the Self-Expression and Control Scale (SECS, Van Elderen et al., 1997), a Dutch translation of the Anger Expression Scale which is part of the STAXI (Spielberger, 1988). In the proposed study this same procedure will be applied with 50 patients with eating disorders who are invited to voluntarily participate in a MSSS session.

Study burden and risks

Participation in a MSSS session takes around 30 minutes. Besides three short questionnaires, a short instruction and physical warming-up is given and participants are asked to stamp on a force plate, strike with boxing gloves on a punching bag and shout in a microphone with increasing and decreasing force. It is very unlikely and has not been observed in earlier clinical and research situations that using the well-structured protocol of the MSSS increases the risk of injury or loss of control over emotions. We don't expect any adverse events to happen and for this reason no risks are associated with participation.

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

- A diagnosis of Anorexia Nervosa, Bulimia Nervosa, Binge Eating Disorder (with a BMI under 30), Other Specified Feeding or Eating Disorder or Unspecified Feeding or Eating Disorders according to DSM-V criteria;
 - Being able to give informed consent;
 - 18 years or older;
 - Sufficiently motivated to participate in the intervention.
- 4.2

Exclusion criteria

- Physical handicaps disabling him/her to stamp and strike;
- General state of health, in which a subject for example is too thin or too weak, to be able to execute the test. Onsite therapist decides whether a patient can participate;
- Estimated IQ < 70, onsite therapist decides if the patients intelligence is sufficient for participation.

Study design

Design

Study type: Observational non invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Diagnostic

Recruitment

NL
Recruitment status: Recruiting
Start date (anticipated): 16-03-2019
Enrollment: 50
Type: Actual

Ethics review

Approved WMO
Date: 14-03-2019
Application type: First submission
Review commission: METC Universitair Medisch Centrum Groningen (Groningen)

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 | NL51508.042.15 |