Shut-D
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Shutdown Dissociation Scale (Shut-D)

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I'm going to be asking you questions about bodily experiences that you may have had in your day to day life since the traumatic event/s. We are interested in how these complaints have developed and how often you suffer from these experiences.

For the interviewer only: People who have been extremely stressed, like survivors of life-threatening situations, will show bodily responses when something reminds them of the stressful experience. Even for very subtle reminders that are not consciously attended, the body can show a set of strong responses. Some survivors of traumatic events experience bodily reactions whenever they are excited or nervous about something or when they get startled or reminded of the events even without realizing. Here are listed typical responses. Ask which ones the respondent may experience in everyday life. Ask, „in your everyday life" (past 6 months); if <6 month since trauma, ask "since the traumatic event/s". Probe all positive responses and then ask for the frequency (e.g., "How often has this been happening?").

Questions	Not at all	Once a month or less/ little	Several times a month/ sometimes	Several times a week/ often
1. Have you fainted?/Have you been passing out?	[0]	[1]	[2]	[3]
2. Have you felt dizzy and has your vision gone black?/Have you felt dizzy and you couldn't see anymore, as if you were blind?	[0]	[1]	[2]	[3]
3. Have you felt like you couldn't hear for a while, as if you were deaf? When people were talking to you, did they sound far away?	[0]	[1]	[2]	[3]
4. Have you had an experience of not being able to properly see things around you (e.g. blurred vision)	[0]	[1]	[2]	[3]
5. Have you felt like your body or a part of your body has gone numb?	[0]	[1]	[2]	[3]
6. Have you felt like you couldn't move for a while, as if you were paralyzed?	[0]	[1]	[2]	[3]
7. Have you felt like your body, or a part of it was insensitive to pain (analgesia)?	[0]	[1]	[2]	[3]
8. Have you been in a state where your body suddenly felt heavy and tired?	[0]	[1]	[2]	[3]
9. Have you had times when your body became stiff for a while?	[0]	[1]	[2]	[3]
10. Have you felt nauseous? Have you felt like you are about to throw up? Have you felt yourself break out in a cold sweat?	[0]	[1]	[2]	[3]
11. Have you had an 'out-of-body' sensation? Have you felt like you were outside of your body?	[0]	[1]	[2]	[3]
12. Have you had moments when you found that you couldn't speak?/Have you been able to speak only with great effort?/Have you had an experience in which you could only whisper for a period of time?	[0]	[1]	[2]	[3]
13. Has your body felt weak and warm for no apparent reason?	[0]	[1]	[2]	[3]

Introduction

The Shutdown-Dissociation Scale was designed as a structured interview to allow researchers, and clinicians who have expertise in trauma-related illness, to assess the risk for dissociation in a patient. This information is useful for designing trauma-focused treatment, for related research questions and for measures to assist patients in their daily life. Additionally, the questionnaire was designed to evaluate the course of Shutdown Dissociation following up treatment. The DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) defines a dissociative subtype of Posttraumatic Stress Disorder (PTSD) recognizing that those patients exhibit additional symptoms of primarily depersonalization and derealization. Similar to the concept the shutdown dissociation, the concerning subtype is linked to repeated exposure of traumatic stressors, especially those that include a high proximity to danger, usually alongside the core PTSD symptoms. Shutdown Dissociation due to the parasympathetic dominance during the (peritraumatic) final stages of the defence cascade (fright, flag and faint), is characterized by progressive symptoms of

– functional sensory de-afferentation, (including u.a. kinaesthetic, somesthetic)
– reduced nociception
– emotional numbing
– motor paralysis (tonic and flaccid immobility)
– loss of language functions/suppressed vocalization
– pseudoneurological symptoms
– (pre-) syncope

For detailed description of the Shutdown Dissociation concept see Schauer and Elbert (2010).

Quality Criteria

Reliability

Internal Consistency: Factor analysis provided evidence for unidimensionality. The first factor (eigenvalue 5.65) accounts for 43.4% of the variance, whereas the second factor (eigenvalue 1.07) accounts for 8.2% of variance. The questionnaire showed excellent internal consistency; Cronbach's alpha = .89.

Test-Retest-Reliability: The test-retest reliability index was high ($r = .93$, $p < .001$, 95% CI[0.88, 0.96])

Validity

Convergent Validity: The convergent validity of the DES (Dissociative Experience Scale, Bernstein & Putnam, 1986) and the Shut-D was assessed. The correlation of the sum scores of the Dissociative Experience Scale and the Shut-D was significant, $r = .86$, $p < .001$.

Criterion-Referenced Concurrent Validity: The Shut-D score reliably separates patients with exposure of trauma and psychopathology from healthy controls (with and without trauma exposure), but also differentiates between diagnostic groups that are associated with different amounts of trauma exposure.

Correlates of the Shut-D (Event-Related and Number of Traumatic Event Types and Symptom levels): The exposure to different traumatic event types, especially those with a high proximity to danger, enhances the variety and frequency of shutdown dissociation. Further, the Shut-D shows associations with an increased PTSD symptom severity and depression levels.

Administration/Scoring Rules

1. Use the prompt questions as written on the questionnaire; use additional questions as needed to accurately determine the frequency of the symptom.
2. Use open-ended questions to carefully inquire about the frequency. When was the last time you suffered from this symptom? When you think back over the last month, was it a rare occurrence? Have you experienced this symptom only sometimes or often? What did it mean for you?
3. It is appropriate to use information that arises later in the interview to modify an earlier rating
4. Double count symptoms: If a person reports that he/or she faints every day, the interviewer should rate all symptoms that are related to fainting (e.g. acoustic, visual and motor as well as pain perceptual shutdown)
5. Questions that are useful to distinguish between a shutdown/defensive symptom and an acute or chronic medical condition or peripheral neuropathy.
   – How long have you been suffering from this symptom?
   – Shutdown dissociation simulates central nervous system neuropathy. Peripheral neuropathy describes the damage to the peripheral nervous system. Peripheral damage affects one or more dermatomes and thus produces symptoms for specific areas of the body. In contrast, shutdown dissociation affects a part of the body (e.g. the whole hand, the whole leg) or the whole body.
6. Please consider side effects of medication, and exclude if it was due to effects of alcohol or drugs.
7. Please consider unpleasant effects that may appear at the beginning of menopause.

are related to fainting (e.g. acoustic, visual and motor as well as pain perceptual shutdown)

Time Frame

When completing this interview, interviewers should establish the time frame for which these Shutdown Dissociation symptoms have been reported. The interviewer should select the time frame as being over the past six months (to get an overview of the patient's suffering in their everyday life). If the trauma was less than six month ago, please ask "since the traumatic event".

Severity of Shutdown Dissociation

The total score is determined by totaling the 13 items. Scores range from 0 to 39 and represent a measure of the severity of shutdown dissociation.

Cut-off Scores

Since 2013 the DSM-5 includes a dissociative subtype of PTSD. On the basis of associative symptoms (item 29) 'Derealization' and (item 30) 'Depersonalization' of the CAPS (Clinician-Administered PTSD Scale; Blake et al., 1995), we categorized the dissociative subtype of PTSD for either one symptom meeting a cut-off >4 for the sum score of the respective intensity and frequency rating (Daniels, Frewen, Theberge & Lanius, 2016; Steuwe, Lanius & Frewen, 2012).

The ROC-analysis (receiver operating characteristic) demonstrated an excellent discrimination of dissociative versus non-dissociative individuals with the Shut-D score (AUC = 0.86. 95% CI[0.77, 0.96]). Furthermore, within the group of individuals with PTSD, the AUC indicated an acceptable diagnostic discrimination for the Shut-D score (AUC = 0.80. 95% CI[0.66, 0.93]). In addition, parameters of diagnostic accuracy (sensitivity and specificity) were retrieved to determine the optimal cut-off value of the Shut-D score. Within individuals with PTSD, high sensitivity and high specificity for the classification of the dissociative subtype is achieved at a Shut-D score of ≥ 18.5 (compare Table 1). If healthy respondents are included, an optimal sensitivity and specificity occurs at a Shut-D score of ≥ 15.5. Therefore, a score equal to or greater than 16 appears adequate for the classification of the dissociative subtype in individuals with a PTSD diagnosis. For another sample of psychiatric patients and controls (N = 127), the Shut-D scores allowed for differentiation between pathological and non-pathological dissociation (> 30 on the DES). Therefore, the authors conclude that a score of 8 or greater indicates clinically relevant dissociative symptoms.

Table 1. Sensitivity and specificity for the Shut-D score for (A) PTSD, (B) individuals with trauma-related symptoms and controls, and (C) individuals with severe mental illness and controls

Sum Score of the Shut-D											
A. Cases with PTSD *N* = 52	6.5	7.5	10	11.5	12.5	13.5	15.5	17.5	18.5	19.5	21.5
Sensitivity	0.94	0.88	0.88	0.88	0.88	0.81	0.81	0.81	**0.81**	**0.81**	0.69
Specificity	0.28	0.36	0.44	0.53	0.58	0.67	0.72	0.75	0.81	0.83	0.83
B. Cases with trauma-related symptoms and controls *N* = 69											
Sensitivity	0.94	0.88	0.88	0.88	0.88	0.81	**0.81**	**0.81**	**0.81**	**0.81**	0.69
Specificity	0.51	0.57	0.62	0.68	0.72	0.77	**0.81**	**0.83**	**0.87**	**0.89**	0.89
C. Cases with severe mental illness and controls *N* = 127											
Sensitivity	0.86	**0.86**	**0.86**	**0.88**	**0.86**	**0.86**	**0.86**	0.79	0.64	0.64	0.57
Specificity	0.79	**0.84**	**0.87**	**0.89**	**0.90**	**0.93**	**0.95**	0.97	0.97	0.97	0.99

Notes. A = cases with PTSD (N = 52), B = cases and controls, N = 69: 52 with PTSD and comorbid depressive symptoms (= A) + 17 controls), C = cases with severe mental illness (n = 63) and controls (n = 64).

Conclusion

The Shut-D is a brief structured interview for assessing the vulnerability to dissociate as a consequence of exposure to traumatic stressors based on the defense cascade model. The scale showed excellent internal reliability as well as retest reliability, high convergent validity, and satisfactory predictive and discriminatory validity. The psychometric properties justify the assessment of shutdown dissociative responding following traumatic experiences (with different proximity to danger), and the awareness of shutdown dissociation offers innovation and improvement in treatment strategies. A sum score of ≥ 16 may be applied to classify the dissociative subtype in the presence of PTSD, and a sum score of 8 indicates pathological dissociative symptoms.

Languages

The Shutdown Dissociation – Scale (Shut-D) is available in English, German, Latin American Spanish, French, and Swahili.

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Further Literature

Further Literature

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