**Other Supplementary Materials**

**Table S1.** The obsessive-compulsive symptom manifestations and individually tailored stimuli for each patient.

**Table S2.** Clinical scale scores of patients with obsessive-compulsive disorder (OCD) and healthy controls.

**Table S3.** Behavioral responses of patients with obsessive-compulsive disorder (OCD) and healthy controls.

**Table S4**. Event-related potentialsat FCz (μV) of patients with obsessive-compulsive disorder (OCD) and healthy controls (HC).

**Table S1.** The obsessive-compulsive symptom manifestations and individually tailored stimuli for each patient.

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| Patient # |  | OCD symptom manifestation |  | Selected pictorial OCD symptom triggersa (N/25) |
|  |  |  |  |  |
| 01 |  | religious obsessions, checking, contamination fear & washing |  | RE (5), CH (6), CW (14) |
| 02 |  | checking, contamination fear & washing, counting, symmetry & ordering |  | CH (12), CW (6), CO (4), SY (3) |
| 03 |  | aggressive obsessions, contamination fear & washing, symmetry & ordering |  | AG (7), CW (13), SY (5)  |
| 04 |  | checking, contamination fear & washing, counting, symmetry & ordering |  | CH (6), CW (15), CO (3), SY (1) |
| 05 |  | aggressive obsessions, contamination fear & washing, counting |  | AG (6), CW (15), CO (4) |
| 06 |  | aggressive obsessions, religious obsessions, checking, hoarding |  | AG (7), RE (10), CH (8) |
| 07 |  | contamination fear & washing, symmetry & ordering |  | CW (15), SY (10) |
| 08 |  | checking, contamination fear & washing, symmetry & ordering |  | CH (9), CW (14), SY (2) |
| 09 |  | aggressive obsessions, checking, contamination fear & washing |  | AG (7), CH (6), CW (12) |
| 10 |  | checking, contamination fear & washing, symmetry & ordering |  | CH (8), CW (15), SY (2) |
| 11 |  | checking, contamination fear & washing, symmetry & ordering |  | CH (9), CW (15), SY (1) |
| 12 |  | aggressive obsessions, checking, contamination fear & washing |  | AG (6), CH (7), CW (12) |
| 13 |  | checking, contamination fear & washing, counting |  | CH (8), CW (14), CO (3) |
| 14 |  | checking, contamination fear & washing, counting |  | CH (8), CW (15), CO (2)1 |
| 15 |  | contamination fear & washing, symmetry & ordering |  | CW (15), SY (10) |
| 16 |  | religious obsessions, contamination fear & washing |  | RO (4), CH (8), CW (12), SY (1) |
| 17 |  | checking, counting, symmetry & ordering |  | CH (12), CO (4), SY (9) |
| 18 |  | aggressive obsessions, contamination fear & washing, counting |  | AG (6), CW (2), CO (10) |
| 19 |  | aggressive obsessions, checking, counting |  | AG (8), CH (13), CO (4) |
| 20 |  | checking, contamination fear & washing |  | CH (10), CW (15) |

aAbbreviations for OCD-relevant picture subtypes taken from the OCD-Picture Set: OCD, obsessive-compulsive disorder; CH, checking; CO, counting; SY, symmetry/ordering; AG, aggressive obsessions; CW, contamination/washing; HO, hoarding; RE, religious obsessions

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| **Table S2.** Clinical scale scores of patients with obsessive-compulsive disorder (OCD) and healthy controls. |
| 　 | Patients with OCD |  | Healthy controls | t | *p*-value |
| Mean | SD |  | Mean  | SD |
| OCI-R (total) | 25.2 | 11.1 |  | 9.3 | 6.0 | 5.324 | <0.001 |
| DOCS-Con | 7.0 | 6.5 |  | 2.4 | 2.3 | 2.786 | 0.012 |
| DOCS-Res | 7.3 | 7.3 |  | 1.6 | 1.8 | 3.171 | 0.005 |
| DOCS-Un | 9.4 | 7.1 |  | 2.2 | 2.2 | 4.057 | <0.001 |
| DOCS-Sym | 2.1 | 3.0 |  | 1.2 | 1.6 | 1.131 | 0.269 |
| BDI | 20.0 | 10.5 |  | 5.32 | 6.4 | 4.990 | <0.001 |
| STAI-S | 57.4 | 12.3 |  | 40.2 | 9.5 | 4.733 | <0.001 |
| STAI-T | 58.3 | 11.5 |  | 37.5 | 8.4 | 6.312 | <0.001 |
| OC-TCDQ-IC | 18.2 | 6.8 |  | 8.1 | 5.9 | 4764 | <0.001 |
| OC-TCDQ-HA | 20.1 | 9.8 |  | 6.6 | 5.1 | 5.134 | <0.001 |
| Y-BOCS | 25.6 | 7.7 |  | - | - | - | - |
| HAM-A | 15.5 | 7.9 |  | - | - | - | - |
| HAM-D | 18.8 | 7.4 |  | - | - | - | - |
| SD, standard deviation; OCI-R, Obsessive-Compulsive Inventory-Revised; DOCS, Dimensional Obsessive-Compulsive Scale; BDI, Beck Depression Inventory; STAI, State-Trait Anxiety Inventory; OC-TCDQ, Obsessive-Compulsive Trait Core Dimensions Questionnaire; IC, Incompleteness Subscale; HA, Harm Avoidance Subscale; Y-BOCS, Yale-Brown Obsessive-Compulsive Scale; HAM-A, Hamilton Anxiety Scale; HAM-D, Hamilton Rating Scale for Depression. |

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| **Table S3.** Behavioral responses of patients with obsessive-compulsive disorder (OCD) and healthy controls. |
| Stimuli | Patients with OCD  | Healthy controls |
|  | Reaction time (SD), ms |
| OCD-relevant |  |  |
| Error | 437.74 (82.63) | 434.81 (73.85) |
| Correct | 454.43 (63.19) | 457.16 (64.06) |
| Neutral |  |  |
| Error | 432.79 (78.15) | 460.63 (126.95) |
| Correct | 452.90 (62.17) | 455.90 (63.51) |
|  | Correct rates  |
| OCD-relevant |  |  |
| Congruent | 0.95 (0.06) | 0.95 (0.05) |
| Incongruent | 0.85 (0.13) | 0.84 (0.11) |
| Neutral |  |  |
| Congruent | 0.95 (0.05) | 0.94 (0.06) |
| Incongruent | 0.84 (0.12) | 0.85 (0.10) |
| Values are the mean ± the standard deviation (SD). |

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| **Table S4**. Event-related potentialsat FCz (μV) of patients with obsessive-compulsive disorder (OCD) and healthy controls (HC). |
|  | Mean amplitude (SD) |
|  | ERN |  | CRN |
| OCD | HC |  | OCD | HC |
| OCD-relevant | –4.68 (5.83) | –0.90 (3.39) |  | 3.09 (2.73) | 6.99 (4.78) |
| Neutral | –3.26 (3.84) | –0.33 (3.57) |  | 3.26 (3.11) | 7.16 (4.77) |
| Δ (OCD-relevant -Neutral) | –1.76 (4.00) | -0.57 (3.25) |  | -0.17 (0.75) | -0.17 (0.80) |
| SD, standard deviation; ERN, Error-related negativity; CRN, Correct response negativity. Δ refers to trials with OCD-relevant stimuli minus trials with neutral stimuli in the time window of the ERN or CRN. |