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Development and Validation of the Youth Obsessive-Compulsive Symptoms Scale (YOCSS)

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Chapter 2

Development and validation of the Youth Obsessive-Compulsive Symptoms Scale (YOCSS)¹

Abstract

From the existing self-report measures for youth Obsessive-Compulsive (OC) symptoms, several challenges can be delineated to further improve the assessment of youth OC-related pathology. The current manuscript incorporates these challenges and reports on the development and validation of a new self-report OC scale for younger age groups, that was labeled the Youth Obsessive-Compulsive Symptoms Scale (YOCSS), assessing OC symptoms and impairment in adolescents (three independent samples: $N = 336$; $N = 289$; and $N = 209$). Study 1 reports on the construction of the items and facets, and their higher-order structure, whereas Study 2 focuses on the confirmation of this structure, measurement invariance across age, and on the convergent and incremental predictive validity. These psychometric analyses resulted in 10 symptom facets (structured in three domains) and one impairment facet, and further suggest that the YOCSS is a promising tool for describing early OC symptoms along a dimensional perspective.

¹ De Caluwé, E., & De Clercq, B. (2014). Development and initial validation of the Youth Obsessive-Compulsive Symptoms Scale (YOCSS). *Child Psychiatry & Human Development*, 45, 647-656. doi: 10.1007/s10578-013-0433-3 **(ENGLISH AND DUTCH SCALES AT THE END OF THIS DOCUMENT)**.

Introduction

Obsessive-Compulsive (OC) symptoms are characterized by uncontrollable, intrusive and time-consuming thoughts (i.e., obsessions) and acts (i.e., compulsions) that are usually assigned to Obsessive-Compulsive Disorder (OCD). This psychiatric condition is categorized under the “Obsessive-Compulsive and Related Disorders” in the Diagnostic and Statistical Manual for Mental Disorders (DSM-5; American Psychiatric Association [APA], 2013) across age, but has traditionally been considered rather uncommon in youth. Recent studies have however indicated considerably higher prevalence rates of OCD in younger age groups than initially assumed (Merlo & Storch, 2006), and approximately half of the adults with OCD report their symptom onset prior to adulthood (Stewart et al., 2004). Such early onset has in addition been proved to be one of the strongest predictors of an unfavorable outcome over time (Merlo & Storch, 2006) and negatively affects adolescent quality of life (Piacentini, Bergman, Keller, & McCracken, 2003). Most importantly, research empirically underscores developmental discontinuity between youth and adult OCD and identifies age specific correlates of the disorder across the life cycle (Butwicka & Gmitrowicz, 2010; Geller et al., 2001).

These different sources of evidence highlight the importance of assessing OC symptoms in an age-specific way at a much younger age than adulthood. Despite the availability of a variety of diagnostic interviews, clinician-administered and parent-report measures (for a review, see Merlo, Storch, Murphy, Goodman, & Geffken, 2005), the importance of self-report tools should be acknowledged. Indeed, self-reports can be considered a useful and relevant source of information beyond the traditional parental reports of problem behavior at a young age (Freeman, Flessner, & Garcia, 2011). This is especially true for

internalizing problems such as OC symptoms, because parents may not always have an accurate view on their child's internal functioning (Rapoport et al., 2000).

To date, a lot of self-report instruments exist and they have all signified important steps in the development of reliable OC measures for younger age groups. An extensive description of these measures in terms of strengths and weaknesses falls beyond the scope of the current manuscript. However, from these existing measures of OC pathology in younger age groups (Merlo et al., 2005), a number of challenges can be delineated that may lead towards the construction of a developmentally oriented, reliable and valid OC self-report measure that is congruent with the most recent conceptualization of OC symptoms (LeBeau et al., 2013). Building upon these challenges, the current study aims to address the area of OC assessment in younger age groups, and corroborates the recent suggestion of Berman and Abramowitz (2010) to improve the assessment methods of OC-related psychopathology. Such improvement may facilitate the identification and treatment of early OC symptoms, and may further generate more valid evaluations of treatment outcomes.

Challenges in Constructing an Obsessive-Compulsive Self-Report Measure for Youth

Based upon suggestions of earlier studies, the present overview will outline four key points that are of particular interest in working towards a developmentally oriented self-report tool for OC psychopathology. First, a youth OC scale should assess OC symptomatology in an age-specific way. This implies that its construction should not be primarily based on adult OC measures, because the phenotypic expression of OC symptomatology across age groups has been proved to be different, as reflected in varying clinical correlates and symptom profiles over time (Butwicka &

Gmitrowicz, 2010; Geller et al., 2001). More specifically, younger age groups present more aggression obsessions and hoarding compulsions compared to adults, they more frequently report multiple OC symptoms, and the precipitating factors are rather vague (Geller et al., 2001). This phenotypic discontinuity between youth and adult OCD can be addressed when a bottom-up strategy for scale construction is applied, such as analyzing case reports in youth, or applying parental free description procedures that cover the construct of interest from an age-specific perspective (Mervielde, De Clercq, De Fruyt, & Van Leeuwen, 2005).

Second, in line with research supporting the dimensional nature of psychopathology (Hudziak, Achenbach, Althoff, & Pine, 2007), it was recently suggested to supplement the traditional categorical DSM-diagnosis with dimensional rating systems to assess aspects of psychopathology (e.g., subclinical symptoms) that are not fully captured by diagnostic categories (Kraemer, 2007; LeBeau et al., 2013). The latter is especially important in youth (Jensen, Brooks-Gunn, & Graber, 1999), because early manifestations of psychopathology may be milder in nature and more difficult to distinguish from normal behavior (Wakschlag et al., 2012). Moreover, this shift to a dimensional perspective creates opportunities to assess the heterogeneity of OC symptoms (Leckman, Bloch, & King, 2009), by relying on multiple symptom dimensions. These symptom dimensions comprise clusters of thematically related obsessions and compulsions (Bloch, Landeros-Weisenberger, Rosario, Pittenger, & Leckman, 2008) that reflect the multi-dimensional nature of OC pathology (Leckman, Rauch, & Mataix-Cols, 2007; Mataix-Cols, do Rosario-Campos, & Leckman, 2005). In addition, such a dimensional approach may capture disorder impairment in a more differentiated way than a categorical approach (Kraemer, 2007), both in terms of severity (e.g., ranging from mild to very severe) as in terms of content (e.g., time

occupied/frequency, associated distress, interference in functioning, inability to resist obsessions and compulsions, and avoidance; Deacon & Abramowitz, 2005).

Third, it remains a challenge to ensure a broad and comprehensive coverage of the construct of interest. When focusing on issues of psychopathology, it is relevant to assess the symptom level and the amount of impairment, and to incorporate both into one single instrument (Lewin & Piacentini, 2010). In addition, youth OC scales should cover the various manifestations of OC symptomatology across disorders, because research has clearly shown that OC symptoms are part of a broad range of disorders, including mood, tic, eating, anxiety (Cameron, 2007), and body dysmorphic disorders (Hollander, Kim, Braun, Simeon, & Zohar, 2009). This idea is also reflected in the current DSM-5 classification of OCD (APA, 2013) into the chapter of “Obsessive-Compulsive and Related Disorders”, along with other disorders that share both symptomatic and etiological factors (Hollander et al., 2009). Hence, a youth OC scale should not primarily focus on OC symptoms from a strict OCD framework, because such a measure will not be able to cover the broad range of OC-related symptoms observable at a young age. Fourth, an OC tool for younger age groups should demonstrate adequate psychometric properties as indicated by sufficient reliability, unidimensionality, and measurement invariance across age, and should further provide evidence for its convergent and predictive validity.

The current study addresses each of these four challenges and presents the development and validation of a new Dutch OC self-report measure for youth between 12 and 18 years old. Because of its age-specific, (multi-)dimensional and comprehensive focus, the proposed measure may signify a surplus value for the field of developmental OC assessment. Relying on three independent adolescent samples, Study 1

reports on the construction of the items and their higher-order structure; and Study 2 focuses on the replicability of this structure, measurement invariance across age, and on the convergent and incremental predictive validity by relying on two widely-used and well-accepted self-report measures for youth OC symptoms (Stewart, Hezel, & Stachon, 2012), which are the Children's Florida Obsessive-Compulsive Inventory (C-FOCI; Storch et al., 2009) and the Obsessive-Compulsive Scale of the Youth Self Report Child Behavior Checklist (OCS-YSR; Hudziak et al., 2006; Nelson et al., 2001; van Grootheest et al., 2007).

Study 1: Construction and Structure of the YOCSS

Method

Participants and Procedure

The sample in Study 1 (i.e., Sample 1) includes a mixed community and referred sample of adolescents² ($N = 336$; 61% girls; 12-18 years old, $M = 15.99$, $SD = 1.71$) to increase the score variability. This combined sample was collected in the course of the Personality and Affect Longitudinal Study (PALS; De Bolle, Beyers, De Clercq, & De Fruyt, 2012) which is an ongoing longitudinal study including youth from the general population and youth who were referred to psychological health care at the moment of inclusion. The current fourth-wave dataset (response rate: 71%) includes 237 adolescents (64.1% girls, mean age = 16.38, $SD = 1.54$, age range = 12-18 years) from the general population and 99 referred adolescents (55.6% girls, mean age = 15.06, $SD = 1.72$, age range = 12-18 years), with 27.3% still in-treatment.

All participants were native Dutch speaking individuals. They received an information letter by mail, describing the study aims, the

² 8 participants older than 18 years were deleted because the YOCSS was developed for youth aged 12-18.

procedures and ethics of data collection, together with an informed consent form, the questionnaires, and a five euro voucher as a compensation for their enduring participation. All participants were instructed on how to complete and return the questionnaires. The Ghent University Ethical Review Board approved this study and written informed consent was obtained from all participants.

Measures

Youth Obsessive-Compulsive Symptoms Scale: Item compilation procedures. In order to obtain a broad coverage of OC-related symptoms, items were constructed along a bottom-up and a top-down approach. Using a bottom-up approach, items were written in Dutch based upon 11 case reports of adolescents suffering from OC symptoms as part of a broader clinical picture (APA, 1996; Clipson & Steer, 1998). This strategy aimed to obtain an age-specific coverage of a broad range of OC symptoms across disorders, and was previously used in the development of established childhood personality trait scales (De Clercq, De Fruyt, Van Leeuwen, & Mervielde, 2006; De Fruyt, Mervielde, Hoekstra, & Rolland, 2000). This item pool was further complemented with items culled from an extensive screening of the OCD DSM criteria, questionnaires and (structured) interviews designed to describe various features of youth OC manifestations. From a top-down strategy, adult assessment tools for OC-related thoughts and behavior were additionally screened by the first author and items that were judged applicable to younger age groups were included in the item pool.

Both approaches resulted in a broad item pool of 898 descriptors that covered both the content and impairment of OC symptomatology. Subsequently, all these descriptors were thematically classified in symptomatic clusters versus clusters that primarily represented an aspect

of impairment. In line with Abramowitz et al. (2010), we underscore the importance of distinguishing the content and impairment items, given that in some cases OC symptoms are present without experiencing impairment. The impairment descriptors were classified along the previously proposed 5-dimensional structure in the literature (Deacon & Abramowitz, 2005) including the dimensions of time occupied/frequency, associated distress, interference in functioning, inability to resist obsessions and compulsions, and avoidance.

This thematic classification procedure generated 34 symptomatic clusters and 5 impairment-related clusters, and identified the relevant constructs to be measured by the new instrument. From this conceptually-structured item pool, the first author constructed for each cluster age-relevant items that targeted a maximal coverage of the 34 OC symptom-related and 5 impairment-related constructs. This procedure resulted in 289 symptom items and 45 impairment items. For reasons of readability, these items were written in the first person verb form and did not include negations. All items were evaluated in view of the expected technical reading level at the age of 12. These newly written items were independently inspected by the second author, who is well-acquainted with the development of assessment tools for younger age groups (De Clercq et al., 2006). Based on the received feedback, the first author revised items that were not concrete enough, added items to maximize the coverage, and deleted items because their content was already represented in other items or were almost verbatim-alike. All these items were inspected by two independent research psychologists, and after a new phase of rewriting, adding and deleting items by the first author, this process resulted in 86 provisional items, comprising 75 symptom items and 11 impairment items. All items are rated on a 5-point Likert scale, ranging from 1 (*This is not at all typical for me*) to 5 (*This is very typical*

for me). This list of 86 items, conceptually classified in 15 symptomatic item sets and 1 impairment item set, was subjected to psychometric analyses.

Results

Facet Construction Procedures

Internal consistency. Following the procedure used in earlier studies on the development of assessment instruments (De Clercq et al., 2006), the internal consistency of the provisional 15 symptom and 1 impairment item sets was analyzed. Items that lowered the internal consistency of an item set were reassigned to another item set based on the highest correlations between these items and the remaining item sets. Items were only reallocated when they increased the internal consistency of an item set. Items that showed no correlations higher than .30 with any item set were deleted from the item pool.

The results show that the initial Cronbach's alpha's of the conceptually classified 15 symptom item sets ranged between .42 and .80. Due to an unacceptable low internal consistency, the classification of the items structured in the "Meta-thinking / Mental compulsions / Thought action fusion" ($\alpha = .42$), "Motor compulsions" ($\alpha = .46$), and "Fixed time, order, or manner" ($\alpha = .65$) sets, was not tenable. In order to maintain breadth of overall content coverage, 6 of the respective 15 items were empirically reallocated to other symptom item sets based on their correlations with and their contribution to the internal consistency of that symptom item set. The remaining 9 items were deleted. Also, 5 other items were deleted from the item pool because they lowered the internal consistency of their symptom item set and did not correlate with any of the remaining symptom item sets ($> .30$). These procedures resulted in an item pool of 61 items empirically structured in 12 reliable symptom item sets.

Two of these 12 symptom item sets were subsequently deleted because they each included only 2 items. These procedures resulted in a final item pool of 57 symptom items (structured in 10 symptom item sets). The composite of these 57 symptom items (“Total Symptom Score”) showed an excellent reliability ($\alpha = .95$).

The internal consistency of the impairment item set (“Impairment Score”) consisting of 11 impairment items appeared to be adequate ($\alpha = .87$). Together, the 57 symptom items and 11 impairment items represented the final OC-taxonomy of 68 items that was labeled as the Youth Obsessive-Compulsive Symptoms Scale (YOCSS).

Unidimensionality: Item-level exploratory factor analysis within facets. A second procedure focused on the unidimensionality of the resulting symptom and impairment item sets (or facets) by conducting item-level principal-axis factoring (PAF) within each item set (oblique rotation) using SPSS. Items were deleted if they had loadings less than .30 on the factor (Lemery, Essex, & Smider, 2002). Furthermore, when an item set was not considered unidimensional because of item loadings $> .30$ on a second factor (Lemery et al., 2002), these items were omitted from the respective item set. Subsequently, deleted items were correlated with all other item sets to explore potential reassignments. The reassignment and deletion procedures were repeated until all item sets were found to be reliable and unidimensional.

PAF analyses at the item-level clearly underscored the unidimensional character of the 10 final symptom item sets (i.e., facets). Across symptom item sets, all items clustered in a one-factor solution and showed significant loadings ($> .30$) (Lemery et al., 2002) on their underlying construct (range loadings: .34 - .84). Table 1 presents all these item sets (with sample items translated in English), their mean inter-item correlations and reliabilities, together with the range of loadings of each

symptom item set. From here on, these reliable and unidimensional symptom item sets are described as the “YOCSS facets”. The Impairment item set (11 items; referring to the Impairment Score) that was already found to be reliable, was also unidimensional, with factor loadings ranging from .47 to .78.

Higher-order Structure

To assess the higher-order structure of the resulting symptom facets, we conducted exploratory factor analysis - structural equation modeling (i.e., Exploratory Structural Equation Modeling; ESEM) (Asparouhov & Muthen, 2009) using Mplus 7 (Muthén & Muthén, 1998-2013). This is a recently developed technique for psychological measurement offering a number of advantages over traditional approaches (Furnham, Guenole, Levine, & Chamorro-Premuzic, 2013). A CF-equamax oblique rotation was chosen because of its ability to spread the variances across the factors and reduce the complexity of the factor structure, and also because the YOCSS facets are correlated. The decision upon the number of factors to retain relied on two different approaches, including the eigenvalues-greater-than-one-rule (Kaiser, 1960), based on exploratory PAF, and the comparison of 1-, 2- and 3-factor solutions in terms of fit indices and interpretability of each of the factors, based on ESEM.

Exploratory PAF at the level of the 10 YOCSS symptom facets revealed that the eigenvalues of the first three factors were larger than one (5.084, 1.170, 1.016, 0.565,...). Comparing 1- to 3-factor solutions resulting from ESEM showed that the 3-factor solution produced three interpretable factors and demonstrated superior fit indices³ (AIC =

³Akaike Information Criterion (AIC) (Akaike, 1987); Relative or normed chi square: a value of ≤ 5 indicates an acceptable fit, ≤ 3 a good fit and ≤ 2 a very good fit (chi-square/degrees of freedom ratio; χ^2/df) (Kline, 2005; Schumacker & Lomax, 2004; Ullman, 2001); the Root Mean Square of Error of Approximation often gives the most information about the fit, with values of $\leq .10$ pointing to an acceptable fit, values $\leq .08$

4427.35, $\chi^2/\text{df} = 2.64$, RMSEA = .07, SRMR = .02, CFI = .98 and TLI = .96), compared to the 2-factor solution (AIC = 4537.17, $\chi^2/\text{df} = 6.66$, RMSEA = .13, SRMR = .05, CFI = .91 and TLI = .85) and the 1-factor solution (AIC = 4730.24, $\chi^2/\text{df} = 10.98$, RMSEA = .17, SRMR = .08, CFI = .79 and TLI = .73). Based upon these results, we retained the 3-factor solution as underlying structure of the YOCSS facets. The rotated 3-factor loading matrix is presented in Table 2, and suggests that the three factors can be interpreted as (1) an Obsessive factor, including the facets Aggression, Guilt, Sensitivity to physical appearance, and Somatization, (2) a Compulsive factor, represented by the facets Repeating, Magic games, and Hoarding, and (3) a factor that represents an Order/Clean/Perfect construct, structuring the facets of Orderliness, Cleanliness and Perfectionism. All factor loadings were significant at $p < .01$ (for $N = 336$, loadings of $\geq .|30|$ are significant at $\alpha = .01$; Stevens, 2002) and shared enough variance (loading $> .40$; Stevens, 2002) with their higher-order factor. These Obsessive, Compulsive and Order/Clean/Perfect factors showed good to excellent reliabilities, with Cronbach's α 's of .90, .88, and .89, respectively. Intercorrelations among the retained higher-order factors were all significant at $p < .001$, with $r = .61$ (Obsessive – Compulsive), $r = .57$ (Obsessive – Order/Clean/Perfect), and $r = .54$ (Compulsive – Order/Clean/Perfect).

Study 2: CFA, Measurement Invariance and Validity of the YOCSS

Method

pointing to an approximate model fit, and values $\leq .05$ suggesting a good model fit (RMSEA) (Chen, Curran, Bollen, Kirby, & Paxton, 2008); a Standardized Root Mean square Residual of $\leq .08$ refers to a good model fit (SRMR) (Hu & Bentler, 1999); for the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI), a value of $\geq .90$ suggests an adequate model fit (Hu & Bentler, 1999).

Participants and Procedure

Sample 2 ($N = 289$; 53 % girls; 12-18 years old, $M = 15.66$, $SD = 1.51$) and Sample 3 ($N = 209$; 63% girls; 12-18 years old, $M = 14.79$, $SD = 1.66$) are community samples that were recruited in secondary schools for technical/vocational and general education, respectively. The same in- and exclusion criteria were used as in Study 1. All adolescents received an informed consent form. Study aims, procedure and ethics of data collection were explained, and participants were instructed on how to complete the YOCSS. The adolescents of Sample 2 additionally provided self-reports on the C-FOCI, whereas those of Sample 3 filled out the C-FOCI and OCS-YSR. On a voluntary basis, fathers from Sample 3 ($N = 99$) completed the PEDS-QL at home. There were no significant differences in OC pathology between the adolescents whose father did and did not participate in the study. The Ghent University Ethical Review Board approved this study and written informed consent was obtained from all participants.

Measures

Youth Obsessive-Compulsive Symptoms Scale. The YOCSS was completed by all adolescents (Sample 2 and 3). Cronbach's α coefficients for the Total Symptom Score were .89 and .93 for Sample 2 and 3, respectively.

Children's Florida Obsessive-Compulsive Inventory. The C-FOCI (Storch et al., 2009) is a brief measure specifically designed from both a top-down and bottom-up approach for use in clinical as well as community settings, and was completed by the adolescents (Sample 2 and 3) to assess the presence and severity of their OC symptoms. The Symptom Checklist (17 items) includes a yes/no format resulting in a Symptom Sum score (Cronbach's α : .70 and .73 for Sample 2 and 3,

respectively). The Impairment score comprises five items (time occupied, distress, degree of control, avoidance and interference) that have to be rated on a 4-point Likert scale (Cronbach's α : .83 and .88 for Sample 2 and 3, respectively).

The Obsessive-Compulsive Scale of the Youth Self Report. The OCS-YSR was first developed and tested in young children, relying on eight items of the Child Behavior Checklist (CBCL) parental report (Hudziak et al., 2006; Nelson et al., 2001), and then tested on self-report data using the Youth Self Report (van Grootheest et al., 2007). This self-report version was completed by the adolescents (Sample 3), with eight items screening for OC pathology that have to be rated on a 3-point Likert scale. The Cronbach's α in this sample was .77.

Pediatric Quality of Life Inventory. Fathers (Sample 3) were administered the PedsQL (Varni, Seid, & Kurtin, 2001), which includes 23 items on their adolescent's quality of life. Items have to be rated on a 5-point Likert scale and can be structured in four subscales that describe physical, emotional, social, and school functioning, together structured in a total functioning score. The Cronbach's α for total functioning in the current sample was .89.

Results

Confirmatory Factor Analyses

The three-factor solution that was found in Study 1 was further explored by CFA with a maximum likelihood robust estimator (Yuan & Bentler, 2000) – to correct for non-normality – on a new independent sample (i.e., Sample 2). This three-factor solution was confirmed by multiple complementary fit indices (Hu & Bentler, 1999), including $\chi^2/df = 2.45$, RMSEA = .07, SRMR = .04, CFI = .96 and TLI = .94. The factor

loading estimates showed that the factor indicators were strongly related to their hypothesized latent factors (see Table 3).

Measurement Invariance

We evaluated the measurement invariance for the youngest (12-15 years old) versus the oldest (16-18 years old) adolescents by multi-group ESEM across Samples 1 and 2, relying on the procedure described in the Mplus User's Guide Version 7 (Muthén & Muthén, 1998-2013). Measurement invariance was tested along five models: 1) configural invariance (no equality constraints); 2) weak invariance (equality of factor loadings); 3) strong invariance (equality of factor loadings and intercepts); 4) a model that additionally imposes equality of factor (co)variances; and 5) a model that additionally imposes equality of the means. The results support very stringent measurement invariance as indicated by the adequate fit and non-significant *p*-values of the five models (see Table 4). This suggests that the same pattern of zero and non-zero loadings holds across age groups (Cheung & Rensvold, 2002), with a similar observed configuration of factor loadings, intercepts, factor (co)variances, and means⁴.

Convergent Validity

The YOCCS demonstrated strong and significant positive correlations with two widely-used and well-accepted measures for youth OC pathology in two independent samples. More specifically, the YOCCS Total Symptom Score correlated .68 in Sample 2 and .70 in Sample 3 with the C-FOCI Symptom Score, as well as .69 in Sample 3 with the OCS-YSR, underscoring the convergent validity of the YOCCS measure.

⁴ Also in the mixed Sample 1, very stringent measurement invariance (shown by a non-significant *p*-value of model 5) was found for community versus referred adolescents: $\chi^2 = 101.99$, $df = 73$, $RMSEA = .05$, $SRMR = .09$, $CFI = .97$, $TLI = .97$, $\chi^2_{diff} = 7.10$, and $p = .07$.

Incremental Predictive Validity

Hierarchical regression analyses were conducted to examine whether the YOCSS Total Symptom Score shows incremental validity in the prediction of quality of life beyond the C-FOCI Symptom Score, or vice versa. Step 1 of the results shows that the YOCSS explained 8% of the variance. In step 2, the YOCSS together with the C-FOCI explained 9% of the variance, indicating that the C-FOCI does not significantly add to the prediction of adolescents' quality of life beyond the YOCSS ($\Delta R^2 = .00$, $F_{change} = ns$). Reversing the entry order, the C-FOCI explained 2% of the variance, mounting to 9% when adding the YOCCS. These results indicate that the YOCSS significantly adds to the prediction of quality of life beyond the C-FOCI ($\Delta R^2 = .07$, $F_{change} p < .01$).

Similar analyses were carried out with the OCS-YSR. In Step 1, the YOCSS explained 9% of the variance. Adding the OCS-YSR in Step 2 did not increase the amount of explained variance, indicating that the OCS-YSR does not significantly add to the prediction of adolescents' quality of life beyond the YOCSS ($\Delta R^2 = .00$, $F_{change} = ns$). Reversing the entry order, the OCS-YSR explained 4% of the variance, mounting to 9% when adding the YOCCS. These results indicate that the YOCSS significantly adds to the prediction of quality of life beyond the OCS-YSR ($\Delta R^2 = .05$, $F_{change} p < .05$) and suggest that the constructs of the YOCCS measure are associated with subjective feelings of well-being in a unique way.

Discussion

The current manuscript reports on the development and validation of the Youth Obsessive-Compulsive Symptoms Scale (YOCSS), a self-report measure assessing OC symptoms and impairment in adolescents between 12 and 18 years old, taking into account four important challenges that were delineated from the current literature on OC assessment. More

specifically, the YOCSS was developed from an age-specific perspective and relied on both bottom-up and top-down construction procedures. These procedures aimed to cover OC symptoms and their associated impairment across disorders, and resulted in a (multi-) dimensional, reliable, and valid assessment tool of developmental OC symptomatology and impairment. The followed procedures are further in line with the literature on the variability in the phenotypic expression of OC pathology across age (Geller et al., 2001), the dimensional nature of psychopathology in general (Hudziak et al., 2007), and the multi-dimensional nature of OC symptoms in particular (Leckman et al., 2007).

The content of the YOCSS can be structured in 10 symptom facets and one impairment facet, which were empirically constructed relying on three independent adolescent samples. These facets showed to be unidimensional and reliable, and the YOCSS demonstrated convergent validity based on the relations with two established youth OC self-report measures. The 10 symptom facets are hierarchically organized in three factors and provide information on a wide range of OC symptomatology. This three-factor structure was replicated in an independent sample and showed measurement invariance across age, further underscoring the validity of the YOCSS in longitudinal studies. In addition, this three-factor structure corroborates previous studies, indicating that the OC symptom structure in the current samples is comparable to a structure that has been previously found in OCD samples, based on the Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS; Scahill et al., 1997) (Bloch et al., 2008; McKay et al., 2006; Stewart et al., 2008; Stewart et al., 2007). However, the current three factors appear to provide a broader coverage of OC pathology compared to existing measures, because of their inclusion of four new facets (i.e., Guilt, Sensitivity to physical appearance, Magic games and Perfectionism) that are not or only briefly represented in other

youth OC scales. These new facets all have one or more reasons to be incorporated in the OC assessment.

More specifically, the relevance of a Guilt facet can be understood from the idea that it perpetuates OC symptoms and is a persistent, yet overlooked factor that negatively impacts the severity and treatment of OCD. For clinicians in particular, it is important to know if this impeding factor is present because the inclusion of guilt-specific treatment strategies can improve treatment outcome (Shapiro & Stewart, 2011). The Sensitivity to physical appearance facet can be considered informative, because strong concerns about one's physical appearance exist in the course of OCD and other OC spectrum disorders (Hollander et al., 2009). One example of such an OC spectrum disorder is anorexia nervosa (Hollander, 2005) where approximately half of the youngsters suffer from OC symptoms (Serpell, Hirani, Willoughby, Neiderman, & Lask, 2006). Also adolescents with body dysmorphic disorder are in general obsessed by their physical appearance, and recent evidence supports the hypothesis that body dysmorphic disorder may be causally related to OC symptomatology (Carroll, Scahill, & Phillips, 2002). The level of Magic games also plays a critical role for effective treatment of OC symptoms and is essential to consider in the OC screening (Shafran, Thordarson, & Rachman, 1996). Finally, the fourth facet Perfectionism is not identified in the majority of youth OC self-report measures and the specific relevance of including it in an OC questionnaire can be understood from research underscoring a strong link between perfectionism and OC symptoms (Chik, Whittal, & O'Neill, 2008), or from evidence reporting that perfectionism predicts OC symptoms (Rheaume, Freeston, Dugas, Letarte, & Ladouceur, 1995).

These additional facets are important to include in the OC screening across research and therapeutic contexts because they lead to a more

comprehensive clinical picture of OC pathology and its association with important parameters such as daily quality of life (Piacentini et al., 2003), as represented by the surplus value of the YOCCS in explaining quality of life variance beyond established measures of OC pathology. Besides the symptom facets, the YOCCS also includes an Impairment construct that represents an extra measure for therapy success, as well as an outcome measure in treatment studies.

Limitations and Suggestions for Further Research

A number of limitations need to be considered when interpreting the current results. First, the use of self-reports may have resulted in minimization of the reported OC symptoms, due to embarrassment (Jenike, 1989) or limited insight (Lewin et al., 2010). Because of the internalizing component that is typically associated with OC symptoms, however, self-report measures guarantee the most valid assessment procedure compared to parent- or other-report (Freeman et al., 2011). Data collection with teacher ratings is however ongoing, and will be compared with self-ratings in terms of psychometric properties. Second, we only included adolescents in this study, future research should hence explore whether the YOCCS is also reliable and valid in younger age groups. Third, the current study did not rely on a clinical sample with patients that suffer from OCD. However, this drawback not only applies to the YOCCS measure but is similar to other scales that were uniquely constructed by use of community samples (LeBeau et al., 2013; Lund, Dennison, Ewing, & de Carvalho, 2011).

Implications

From an applied perspective, the YOCCS may be considered a useful measure because it provides an age-specific, (multi-)dimensional and detailed description of several relevant OC aspects and their impairing

value that may occur in the course of any disorder. This cross-disorder description moves beyond the tradition of describing psychopathology within the framework of one specific disorder, and opens new perspectives on the assessment of early manifestations of OC-related problems that are not specifically tied to a single diagnosis, but are understood in the course of a broad clinical picture. Such dimensionally-oriented assessment additionally facilitates the identification of young people with mild or moderate OC symptoms that often fall under the clinical cutoff of a traditional categorical OC assessment, and are hence not flagged by established measures. At this point, dimensional measures of psychopathology, such as the YOCSS, may complement the categorical DSM assessment procedures (Hudziak et al., 2007; Rosario-Campos et al., 2006) and contribute to the ultimate aspiration of implementing the most informative and comprehensive assessment strategies.

Summary

To date, many self-report OC instruments exist and they have all signified important steps in the development of reliable youth OC measures. From these existing measures, however, several challenges can be delineated to further improve the assessment of OC-related pathology. The current manuscript incorporates these challenges and reports on the development and validation of a new self-report OC scale for younger age groups that was labeled the Youth Obsessive-Compulsive Symptoms Scale (YOCSS). The YOCSS aims to assess OC symptoms and associated impairment in adolescents between 12 and 18 years old in an age-specific, (multi-) dimensional, broad and psychometrically sound way. The YOCSS comprises 57 symptom items that are empirically structured in 10 unidimensional and reliable facets for describing OC symptoms, and 11 items that describe the level of impairment. The symptom facets are

further empirically organized in three factors or domains, representing an Obsessive factor, a Compulsive factor, and an Order/Clean/Perfect factor. This three-factor structure was replicated in an independent sample, evidence for measurement invariance across age was demonstrated, and both convergent and incremental predictive validity of the YOCCS beyond established measures of OC pathology was underscored. These results suggest that the YOCCS holds promise as a reliable and valid tool for describing early OC symptomatology and impairment along a dimensional perspective.

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Table 1
Youth Obsessive-Compulsive Symptoms Scale (YOCSS) Facets and Sample Items

YOCSS facet	Sample items	Variance explained	N items	M interitem correlation	α	Range loadings
Aggression	I keep on thinking that I will do bad things (e.g., steal, commit arson, break things, say dirty things, ...).	37.76%	6	.37	.75	.50-.73
Guilt	I often think that I will cause bad things to happen.	48.64%	5	.49	.82	.65-.74
Sens. to physical ap.	I keep thinking that I am ugly or deformed.	54.68%	3	.54	.77	.65-.84
Somatization	I am often worried about becoming ill.	41.36%	6	.41	.80	.52-.77
Repeating	I have to repeat certain actions recurrently to be sure that I really did them.	37.50%	7	.37	.79	.46-.76
Magic games	I have to play special “good luck” games to prevent something bad from happening (e.g., only stepping on the white crosswalk lines, ...).	47.94%	6	.48	.83	.62-.74
Hoarding	I collect a lot of things that are useless according to others.	36.34%	6	.34	.75	.34-.73
Orderliness	I get very upset if my things are not in their proper place.	47.16%	5	.46	.81	.47-.76
Cleanliness	I repeatedly clean my clothes, toys/school stuff, room or other things, although others tell me that these things are not dirty.	35.56%	6	.34	.76	.40-.78
Perfectionism	I always think I have to be perfect.	32.80%	7	.32	.76	.40-.70

Note. The original YOCSS is developed in Dutch. Sens. to physical ap.; Sensitivity to physical appearance.

Table 2

Exploratory Structural Equation Modeling Factor Analysis of the YOCSS Facets: Standardized Factor Loadings (and Standard Errors) for the Three-Factor Solution

YOCSS facet	YOCSS factor		
	Factor 1: Obsessive	Factor 2: Compulsive	Factor 3: Order/Clean/Perfect
Aggression	.78 (.05)	.25 (.05)	-.02 (.03)
Guilt	.63 (.04)	.19 (.05)	.18 (.04)
Sensitivity to physical appearance	.65 (.05)	-.23 (.05)	.23 (.05)
Somatization	.47 (.05)	.23 (.06)	.07 (.05)
Repeating	.07 (.04)	.69 (.05)	.24 (.04)
Magic games	.04 (.04)	.77 (.05)	-.01 (.04)
Hoarding	.33 (.06)	.40 (.06)	.04 (.06)
Orderliness	-.04 (.04)	.19 (.05)	.74 (.05)
Cleanliness	.08 (.04)	-.05 (.04)	.79 (.04)
Perfectionism	.13 (.05)	.19 (.05)	.64 (.04)

Note. Salient factor loadings are listed in bold.

Table 3

Confirmatory Factor Analysis of the YOCSS Facets: Standardized Factor Loadings (and Standard Errors) for the Three-Factor Solution

YOCSS facet	YOCSS factor		
	Factor 1: Obsessive	Factor 2: Compulsive	Factor 3: Order/Clean/Perfect
Aggression	.84 (.03)		
Guilt	.82 (.03)		
Sensitivity to physical appearance	.66 (.04)		
Somatization	.71 (.06)		
Repeating		.80 (.06)	
Magic games		.74 (.08)	
Hoarding		.65 (.08)	
Orderliness			.79 (.04)
Cleanliness			.84 (.03)
Perfectionism			.82 (.03)

Table 4

Multi-group Exploratory Structural Equation Modeling of the YOCS for Young Versus Old Adolescents: Multiple Fit Indices for the Three-factor Structure

Model description	χ^2	<i>df</i>	Correction	RMSEA	SRMR	CFI	TLI	χ^2_{diff}	<i>df</i> _{diff}	<i>p</i>
Model 1 (configural invariance)	81.17	36	1.13	.07	.02	.98	.94			
Model 2 (weak invariance)	109.17	57	1.32	.06	.04	.97	.96	31.83	21	.06
Model 3 (strong invariance)	117.10	64	1.28	.05	.04	.97	.96	6.06	7	.53
Model 4	122.45	70	1.42	.05	.08	.97	.97	8.24	6	.22
Model 5	128.36	73	1.41	.05	.08	.97	.97	6.04	3	.11

Note. The fit index χ^2 refers to the Satorra-Bentler scaled chi-square. Correction refers to the scaling correction factor for the maximum likelihood robust estimator (MLR). This estimator was used to control for non-normal data with missings. The fit index χ^2_{diff} refers to the Satorra-Bentler scaled difference chi-square test statistic (Satorra & Bentler, 2001) and was used to control for small sample sizes and non-normal data. RMSEA, Root Mean Square of Error of Approximation; SRMR, Standardized Root Mean square Residual; CFI, Comparative Fit Index; diff, difference; Model 4 is the model where equality of factor variances and the factor covariance is imposed in addition to measurement invariance of the intercepts and factor loading matrices. Model 5 additionally imposes equality of the means.

Appendix A⁵

List of assessment tools for obsessive-compulsive related thoughts and behavior for the item compilation procedures

Measures for Children and Adolescents

Anxiety Disorders Interview Schedule for DSM-IV-Child version (ADIS-C; Silverman & Albano, 1996)

Children's Florida Obsessive Compulsive Inventory (C-FOCI; Storch, Khanna, Merlo, Loew, Franklin, Reid et al., 2009)

Children's Obsessional Compulsive Inventory (ChOCI; Shafran, Frampton, Heyman, Reynolds, Teachman, & Rachman, 2003)

Intrusive Thought Questionnaire Child Version (ITQ CV; Dougall, Craig, & Baum, 1999)

Inventory Daily Routines – Child Version ([Inventarisatie Dagelijkse Bezigheden, IDB] Kraaimaat & Van Dam-Baggen, 1976)

Leyton Obsessional Inventory - Child Version (LOI-CV; Berg, Rapoport, & Flament, 1986)

Leyton Obsessional Inventory - Child Version - Survey Form (Berg et al., 1988)

Leyton Obsessional Inventory - Child Version - Short form (Bamber, Tamplin, Park, Kyte, & Goodyer, 2002)

Meta-cognitions Questionnaire - Adolescents (MCQ; Cartwright-Hatton, Mather, Illingworth, Brocki, Harrington, & Wells, 2003)

Obsessive Beliefs Questionnaire 44 Child version (OBQ 44 CV; Coles, Wolters, Sochting, de Haan, Pietrefesa, & Whiteside, 2010)

Obsessive-Compulsive Inventory - Child Version (OCI-CV; Foa, Coles, Huppert, Pasupuleti, Franklin & March, 2010)

⁵ The three appendixes were not included in the manuscript, only in this dissertation.

Obsessive-Compulsive Scale of the Child Behavior Checklist (OCS
CBCL; Nelson, Hanna, Hudziak, Botteron, Heath, & Todd, 2001)

The Short OCD Screener (SOCS; Uher, Heyman, Mortimore, Frampton,
& Goodman, 2007)

Yale-Brown Obsessive Compulsive Scale Child version (CY-BOCS;
Scahill, Riddle, McSwiggin-Hardin, Ort, King, Goodman et al.,
1997)

Measures for Adults

Dimensional Obsessive-Compulsive Scale (DOCS; Abramowitz, Deacon,
Olatunji, Wheaton, Berman, Losardo et al., 2010)

Dimensional Yale-Brown Obsessive Compulsive Symptom checklist (DY-
BOCS; Rosario-Campos, Miguel, Quatrano, Chacon, Ferrao,
Findley et al., 2006))

Health Anxiety Questionnaires (HAI; Salkovskis, Rimes, Warwick, &
Clark, 2002)

Maudsley Obsessive Compulsive Inventory (MOCI; Hodgson &
Rachman, 1977)

Multidimensional Perfectionism Scale (MPS; Hewitt, Flett, Turnbull-
Donovan, & Mikail, 1991)

Obsessive-Compulsive Inventory (OCI; Foa, Kozak, Salkovskis, Coles, &
Amir, 1998)

Padua Inventory Revised (PI-r; van Oppen, Hoekstra, & Emmelkamp,
1995)

Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, &
Borkovec, 1990)

Reassessment Scale ([Geruststellingsschaal, GS] Speckens, Spinhoven,
van Hemert, & Bolk, 2000)

Responsibility Attitudes Questionnaire (RAS; Salkovskis, Wroe, Gledhill, Morrison, Forrester, Richards et al., 2000)

Responsibility Interpretations Questionnaire (RIQ; Obsessive-Compulsive Disorder Group, 1999)

Thought Action Fusion Scale revised (TAF Scale; Shafran, Thordarson, & Rachman, 1996)

Vancouver Obsessional Compulsive Inventory (VOCI; Thordarson, Radomsky, Rachman, Shafran, Sawchuk, & Hakstian, 2004)

Appendix B

Youth Obsessive-Compulsive Symptoms Scale (YOCSS)⁶

This is a list of statements different youngsters might say about themselves. Some statements will be typical for you and others will be not. Please read each statement carefully, selecting the response that best describes you. If you think that the statement:

- is **not at all typical** for you, circle number **1**
- is **a little bit typical** for you, circle number **2**
- is **more or less typical** for you, circle number **3**
- is **typical** for you, circle number **4**
- is **very typical** for you, circle number **5**

There are no right or wrong answers. Try to describe yourself as honestly as possible and please do not omit any statements.

- | | | | | | |
|---|---|---|---|---|---|
| 1. I keep thinking that I will get hurt..... | 1 | 2 | 3 | 4 | 5 |
| 2. I often feel guilty about things I did, while others do not think it were bad things..... | 1 | 2 | 3 | 4 | 5 |
| 3. I am constantly worried about what is good and bad.... | 1 | 2 | 3 | 4 | 5 |
| 4. I always feel the urge to count the things that I pass (e.g., houses, streetlights,...)..... | 1 | 2 | 3 | 4 | 5 |
| 5. I am often worried about falling ill..... | 1 | 2 | 3 | 4 | 5 |
| 6. I am always worried when things are not orderly..... | 1 | 2 | 3 | 4 | 5 |
| 7. I always think I must be perfect..... | 1 | 2 | 3 | 4 | 5 |

⁶ This scale was initially developed in Dutch.

-
8. I am constantly concerned that something bad would happen if I throw away things that are useless according to others..... 1 2 3 4 5
9. I am always thinking about my (un)lucky numbers, colors or words..... 1 2 3 4 5
10. For me, it is important that I can do my activities on a fixed time..... 1 2 3 4 5
11. I always have to repeat numbers/words/letters in my mind..... 1 2 3 4 5
12. I am always thinking about food, calories, recipes and diets..... 1 2 3 4 5
13. I keep thinking that I will do bad things (e.g., steal, commit arson, break things, say dirty things,...)..... 1 2 3 4 5
14. I feel constantly guilty about the thoughts I have, while others do not find this necessary..... 1 2 3 4 5
15. I am often worried about getting contaminated..... 1 2 3 4 5
16. If I feel pain, I always think that this is a sign of a serious illness..... 1 2 3 4 5
17. I think over and over again that things are not ordered properly..... 1 2 3 4 5
18. I often wonder if I would keep or discard things that are useless according to others..... 1 2 3 4 5
19. I must play special “good luck” games to prevent something bad happening (e.g., stepping only on the white crosswalk lines,...)..... 1 2 3 4 5

20. I often think that bad things will happen because of me..	1	2	3	4	5
21. I cannot resist the urge to repeat what is being said.....	1	2	3	4	5
22. I keep thinking again that I am ugly or deformed.....	1	2	3	4	5
23. Again and again, I have bad thoughts (e.g., about accidents, death,...)	1	2	3	4	5
24. I have to count the actions I repeat.....	1	2	3	4	5
25. I ask myself over and over again if I am clean enough...	1	2	3	4	5
26. I am so worried about my health that I can think of nothing else.....	1	2	3	4	5
27. I constantly have to reorganize and arrange everything..	1	2	3	4	5
28. I must repeat certain actions until it feels “just right” (e.g., going through a door, going up and down stairs,...)	1	2	3	4	5
29. I can hardly walk around in my room because it is completely filled with stuff that I keep.....	1	2	3	4	5
30. I must use special numbers, letters or sayings to make me feel good.....	1	2	3	4	5
31. I get very upset if my things are not in their own place..	1	2	3	4	5
32. I cannot resist the urge to constantly count to a certain number.....	1	2	3	4	5
33. I have to repeat certain actions over and over again to be sure that I really did them.....	1	2	3	4	5
34. I am often worried that I am fat or that I would become more fat.....	1	2	3	4	5
35. I keep thinking that others will have pain.....	1	2	3	4	5

-
36. When I think that something is my fault, I have to
redeem it by repeatedly thinking or doing something... 1 2 3 4 5
37. I am constantly worried about the cleanliness of things
(e.g., my stuff, room,...). 1 2 3 4 5
38. I think again and again that the doctor did not examined
me good enough. 1 2 3 4 5
39. I put everything parallel or in pairs. 1 2 3 4 5
40. I must always check if I have finished my things to
perfection. 1 2 3 4 5
41. I collect a lot of things that are useless according to
others. 1 2 3 4 5
42. I avoid doing things that are related to unlucky
numbers, colors or words because otherwise I feel
scared or nervous. 1 2 3 4 5
43. I cannot start with something (e.g., homework) when
things are not exactly ordered in a special way. 1 2 3 4 5
44. I tend to touch things in a special way. 1 2 3 4 5
45. I constantly must wash my hands or other body parts
very intensively. 1 2 3 4 5
46. I repeatedly ask others if I am not serious ill. 1 2 3 4 5
47. When I make a mistake, I must start over again. 1 2 3 4 5
48. I always look in the dustbin to check if I threw away
something that I should keep. 1 2 3 4 5
49. I must move or talk in a special way to prevent bad
luck. 1 2 3 4 5

-
50. I constantly repeat the same actions..... 1 2 3 4 5
51. I feel over and over again the urge to hurt myself..... 1 2 3 4 5
52. I often must smell at myself to check if I washed myself
good enough..... 1 2 3 4 5
53. I work very precisely to avoid making mistakes..... 1 2 3 4 5
54. If I have thrown away something that I no longer need, I
feel the urge to take it back out the dustbin..... 1 2 3 4 5
55. I must often check if everything is clean..... 1 2 3 4 5
56. I constantly feel the urge to hurt others..... 1 2 3 4 5
57. I repeatedly clean my clothes, toys/school stuff, room or
other things, while these things are not dirty according
to others..... 1 2 3 4 5
- Keep in mind the “thoughts” and “acts” from above that match you,
when answering the following questions.**
58. I have unwanted thoughts or acts that make my life
difficult..... 1 2 3 4 5
59. I have difficulties at school because I repeatedly think
or do certain things..... 1 2 3 4 5
60. The awkward thoughts or acts that I have or do, make
me sad..... 1 2 3 4 5
61. I have lost friends because of the things I repeatedly
think or do..... 1 2 3 4 5
62. I have no time anymore for hobby’s because of my
recurring thoughts or acts..... 1 2 3 4 5

-
63. I avoid situations, persons, things or places that provoke my unpleasant thoughts or acts..... 1 2 3 4 5
64. My parents find it bothersome that I constantly think or do the same..... 1 2 3 4 5
65. There is little time for me to sleep or eat because my thoughts or acts take so much time..... 1 2 3 4 5
66. My brother(s) and/or sister(s) (or others if you do not have any siblings) laugh at me because I repeatedly think or do certain things..... 1 2 3 4 5
67. Every day I spend several hours thinking or doing certain things again and again..... 1 2 3 4 5
68. I cannot stop my thoughts or acts..... 1 2 3 4 5

Appendix C

Youth Obsessive-Compulsive Symptoms Scale (YOCCS)

Dit zijn allemaal uitspraken over kenmerken die bij kinderen en jongeren kunnen voorkomen. Sommige uitspraken kunnen ook bij jou passen, terwijl andere helemaal niet bij jou passen.

Lees elke uitspraak aandachtig en omcirkel daarna een cijfer van 1 tot 5.

Als je vindt dat de uitspraak

- **helemaal niet** past bij jou, dan omcirkel je cijfer **1**
- een **heel klein beetje** past bij jou, dan omcirkel je cijfer **2**
- **min of meer** past bij jou, dan omcirkel je cijfer **3**
- **goed** past bij jou, dan omcirkel je cijfer **4**
- **heel goed** past bij jou, dan omcirkel je cijfer **5**

Er zijn geen goede of foute antwoorden.

Probeer alle vragen eerlijk te beantwoorden en geen vragen over te slaan.

- | | | | | | |
|---|---|---|---|---|---|
| 1. Ik denk steeds opnieuw dat ik gekwetst zal raken..... | 1 | 2 | 3 | 4 | 5 |
| 2. Ik voel me dikwijls schuldig over dingen die ik deed,
terwijl anderen dit niet erg vonden..... | 1 | 2 | 3 | 4 | 5 |
| 3. Ik maak me steeds opnieuw zorgen over wat goed en
slecht is..... | 1 | 2 | 3 | 4 | 5 |
| 4. Ik heb steeds de neiging om dingen waar ik passeer te
tellen (bv. huizen, lantaarnpalen,...)..... | 1 | 2 | 3 | 4 | 5 |
| 5. Ik maak me vaak zorgen over het krijgen van ziektes... | 1 | 2 | 3 | 4 | 5 |
| 6. Ik ben steeds bezorgd als dingen niet ordelijk liggen ... | 1 | 2 | 3 | 4 | 5 |
| 7. Ik denk altijd dat ik perfect moet zijn | 1 | 2 | 3 | 4 | 5 |

-
- | | | | | | |
|---|---|---|---|---|---|
| 8. Ik maak me steeds opnieuw zorgen dat er iets erg zou gebeuren als ik dingen weggooi die volgens anderen nutteloos zijn | 1 | 2 | 3 | 4 | 5 |
| 9. Ik heb (on)geluksnummers, -kleuren of -woorden waar ik steeds mee bezig ben in mijn hoofd | 1 | 2 | 3 | 4 | 5 |
| 10. Ik vind het belangrijk dat ik mijn bezigheden op een vast tijdstip kan uitvoeren | 1 | 2 | 3 | 4 | 5 |
| 11. Ik moet altijd getallen/woorden/letters zeggen of in mijn gedachten herhalen | 1 | 2 | 3 | 4 | 5 |
| 12. Ik denk altijd aan eten, calorieën, recepten of diëten | 1 | 2 | 3 | 4 | 5 |
| 13. Ik denk steeds dat ik stoute dingen zal doen (bv. stelen, brand stichten, dingen stuk maken, vieze dingen zeggen,...) | 1 | 2 | 3 | 4 | 5 |
| 14. Ik voel me constant schuldig door de gedachten die ik heb, terwijl anderen dit niet nodig vinden | 1 | 2 | 3 | 4 | 5 |
| 15. Ik maak me dikwijls zorgen om besmet te worden | 1 | 2 | 3 | 4 | 5 |
| 16. Als ik pijn heb, denk ik steeds dat dit een teken van een ernstige ziekte is | 1 | 2 | 3 | 4 | 5 |
| 17. Ik denk steeds opnieuw dat dingen niet gelijk liggen | 1 | 2 | 3 | 4 | 5 |
| 18. Ik vraag me vaak af of ik dingen die volgens anderen waardeloos zijn zou houden of weggoeien | 1 | 2 | 3 | 4 | 5 |
| 19. Ik moet speciale spelletjes spelen die geluk brengen (bv. enkel op de witte lijnen van het zebra-pad stappen), zodat er niets ernstig gebeurt | 1 | 2 | 3 | 4 | 5 |
| 20. Ik denk dikwijls dat er slechte dingen zullen gebeuren | 1 | 2 | 3 | 4 | 5 |

door mijn schuld					
21. Ik kan het niet laten om steeds opnieuw te herhalen wat er gezegd wordt	1	2	3	4	5
22. Ik denk steeds opnieuw dat ik lelijk of misvormd ben	1	2	3	4	5
23. Ik heb telkens opnieuw slechte gedachten (bv. over ongelukken, de dood,...)	1	2	3	4	5
24. Ik moet steeds de handelingen die ik herhaal tellen	1	2	3	4	5
25. Ik vraag me steeds opnieuw af of ik wel proper genoeg ben	1	2	3	4	5
26. Ik maak me zoveel zorgen over mijn gezondheid dat ik aan niets anders kan denken	1	2	3	4	5
27. Ik moet telkens opnieuw alles ordenen en rangschikken	1	2	3	4	5
28. Ik moet bepaalde acties herhalen tot wanneer het "gewoon goed" voelt (bv. door een deur gaan, trap op- en afgaan,...)	1	2	3	4	5
29. Ik kan bijna niet meer in mijn kamer rondlopen omdat het er helemaal vol ligt met spullen die ik bewaar	1	2	3	4	5
30. Ik moet speciale nummers, letters en gezegden gebruiken om me goed te voelen	1	2	3	4	5
31. Ik raak helemaal overstuurd als mijn spullen niet op hun eigen plaats liggen	1	2	3	4	5
32. Ik kan het niet laten om steeds opnieuw tot een bepaald getal te tellen	1	2	3	4	5
33. Ik moet sommige dingen die ik doe steeds opnieuw herhalen om er zeker van te zijn dat ik ze echt deed	1	2	3	4	5
34. Ik maak me dikwijls zorgen dat ik dik ben of dik(ker)	1	2	3	4	5

zou worden

- | | | | | | |
|--|---|---|---|---|---|
| 35. Ik denk steeds opnieuw dat anderen pijn zullen hebben | 1 | 2 | 3 | 4 | 5 |
| 36. Als ik denk dat iets mijn fout is, moet ik het
'goedmaken' door iets verschillende keren opnieuw te
doen of te denken | 1 | 2 | 3 | 4 | 5 |
| 37. Ik maak me steeds opnieuw zorgen over de netheid van
dingen (bv. spullen, kamer,...) | 1 | 2 | 3 | 4 | 5 |
| 38. Ik denk telkens opnieuw dat de dokter me niet goed
genoeg heeft onderzocht | 1 | 2 | 3 | 4 | 5 |
| 39. Ik leg alles evenwijdig of in paren | 1 | 2 | 3 | 4 | 5 |
| 40. Ik moet altijd controleren of ik de dingen tot in de
puntjes heb afgewerkt | 1 | 2 | 3 | 4 | 5 |
| 41. Ik verzamel heel veel dingen die volgens anderen
nutteloos zijn | 1 | 2 | 3 | 4 | 5 |
| 42. Ik vermijd dingen te doen die te maken hebben met
ongeluksgetallen, -kleuren of -woorden omdat ik me
anders bang of zenuwachtig voel | 1 | 2 | 3 | 4 | 5 |
| 43. Ik kan niet aan iets beginnen (bv. huiswerk) als de
dingen niet precies op een speciale manier klaarliggen | 1 | 2 | 3 | 4 | 5 |
| 44. Ik heb de neiging om dingen steeds op een speciale
manier aan te raken | 1 | 2 | 3 | 4 | 5 |
| 45. Ik moet steeds opnieuw mijn handen of andere
lichaamsdelen heel erg goed wassen | 1 | 2 | 3 | 4 | 5 |
| 46. Ik vraag telkens opnieuw aan anderen of ik niet ernstig
ziek ben | 1 | 2 | 3 | 4 | 5 |

-
47. Ik moet altijd helemaal opnieuw beginnen met dingen
als ik een fout maak. 1 2 3 4 5
48. Ik kijk altijd in de vuilniszak of ik niets heb weggegooid
dat niet weg mocht 1 2 3 4 5
49. Ik moet op een speciale manier bewegen of praten om
ongeluk te vermijden 1 2 3 4 5
50. Ik herhaal steeds bepaalde bewegingen 1 2 3 4 5
51. Ik heb telkens opnieuw het gevoel dat ik mezelf pijn
moet doen 1 2 3 4 5
52. Ik moet dikwijls aan mezelf ruiken om te controleren of
ik wel goed gewassen ben 1 2 3 4 5
53. Ik ga enorm nauwkeurig te werk om te vermijden dat ik 1 2 3 4 5
fouten maak
54. Als ik iets heb weggegooid dat ik niet meer nodig heb,
heb ik de neiging om het toch terug uit de vuilbak te
nemen 1 2 3 4 5
55. Ik moet dikwijls nakijken of alles netjes is 1 2 3 4 5
56. Ik heb steeds opnieuw het gevoel dat ik anderen pijn
moet doen 1 2 3 4 5
57. Ik maak steeds opnieuw mijn kleren, speelgoed, kamer
of andere dingen schoon, terwijl deze volgens anderen
niet vuil zijn 1 2 3 4 5
- Probeer de bovenstaande "gedachten" en "gedragingen" die bij jou passen in
je achterhoofd te houden bij het beantwoorden van de volgende vraagjes.

-
58. Ik heb ongewenste gedachten of handelingen die mijn leven lastig maken 1 2 3 4 5
59. Ik ondervind problemen op school door de dingen die ik steeds opnieuw denk of doe 1 2 3 4 5
60. De vervelende gedachten of handelingen die ik heb, maken me triest 1 2 3 4 5
61. Ik ben vrienden verloren door de dingen die ik telkens opnieuw denk of doe 1 2 3 4 5
62. Ik heb geen tijd meer voor hobby's door mijn terugkerende gedachten of gedragingen 1 2 3 4 5
63. Ik vermijd situaties, personen, dingen of plaatsen die mijn onplezante gedachten of handelingen uitlokken 1 2 3 4 5
64. Mijn ouders vinden het vervelend dat ik telkens opnieuw dezelfde dingen denk of doe 1 2 3 4 5
65. Er blijft voor mij te weinig tijd over om te slapen of te eten omdat mijn gedachten of handelingen zoveel tijd in beslag nemen 1 2 3 4 5
66. Mijn broer(s) en/of zus(sen) (of anderen als je geen broer of zus hebt) lachen me uit omdat ik bepaalde dingen telkens denk of doe 1 2 3 4 5
67. Ik ben elke dag uren bezig met bepaalde dingen steeds opnieuw te denken of te doen 1 2 3 4 5
68. Het lukt me niet om mijn gedachten of gedragingen te stoppen 1 2 3 4 5

Als je gedachten en/of gedragingen uit deze vragenlijst bij jezelf herkent, gelieve dan ook nog de twee onderstaande vraagjes in te vullen.

Als de gedachten en/of gedragingen uit deze vragenlijst helemaal niet passen bij jou, hoef je de twee onderstaande vraagjes niet in te vullen.

69. Wanneer zijn deze gedachten en/of gedragingen gestart?

Ik was toen ongeveer jaar.

70. Hoe lang ben je per dag bezig met deze gedachten en/of gedragingen?

Per dag ongeveer..... (seconden/minuten/uren)*

(*=doorschrap wat niet past)

Heb je nog andere zaken toe te voegen?.....