

Psychometric Properties of the French and English versions of the Vancouver Obsessional-
Compulsive Inventory and the Symmetry, Ordering and Arranging Questionnaire

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Abstract

The Vancouver Obsessional-Compulsive Inventory (VOCI) and the Symmetry Ordering and Arranging Questionnaire (SOAQ) are self-report measures that assess a wide variety of symptoms and features of Obsessive-Compulsive Disorder (OCD), including checking, contamination, obsessions, hoarding, “just right”, indecisiveness, and symmetry, ordering and arranging obsessions and compulsions. The original English versions of the VOCI and SOAQ have been shown to demonstrate excellent psychometric properties. The present study examined the reliability and validity of French translations of these measures, and also involved the collection of supplementary psychometric information about the English versions of the scales from a new sample. Volunteer undergraduate students completed questionnaire packages including the VOCI and SOAQ, as well as measures of obsessive-compulsive, phobic and depressive symptomatology in their native language of either French or English. Results indicate that the French versions of the VOCI and SOAQ demonstrate similar and excellent psychometric properties to the English versions and that these measures are highly valid and reliable assessment tools for use in clinical and research applications in both languages.

KEYWORDS: Obsessive-Compulsive Disorder, OCD, Obsessions, Compulsions, Questionnaires, French

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Obsessive-compulsive disorder (OCD), characterized by recurrent obsessions and/or compulsions (APA, 2000), can be a severely debilitating disorder. It has been estimated that OCD has a prevalence of 2.5% (APA, 2000). Reliable and effective assessment tools, as well as empirically-supported treatment protocols would be of great help to a large number of people for whom English questionnaires are of little or no use.

Currently, several self-report measures such as the Maudsley Obsessional-Compulsive Inventory (MOCI; Hodgson & Rachman, 1977), the Padua Inventory-Washington State University Revision (PI-WSUR; Burns, Keortge, Formea, & Sternberger, 1996), and the Obsessive Compulsive Inventory (OCI; Foa, Kozak, Salkovskis, Coles & Amir, 1998) are available to assess OCD symptomatology. Many of these measures are available in a number of languages. Although these widely-used measures have generally demonstrated good psychometric properties, they are also characterized by several limitations. Accordingly, the Vancouver Obsessional-Compulsive Inventory (VOCI; Thordarson et al., 2004) and the Symmetry, Ordering and Arranging Questionnaire (SOAQ; Radomsky & Rachman, 2004) were designed as revisions of and extensions to the MOCI to improve upon some of these weaknesses. Currently, the VOCI and SOAQ are only available in English although new versions of the VOCI are now in production in German, Spanish, Chinese, Italian, and Farsi. The purpose of the current study was to evaluate the psychometric properties of new French versions of the VOCI and SOAQ, as well as to collect additional information about the psychometric properties of the original English versions. This should facilitate clinical assessment and encourage OCD

research in French-speaking populations, including those in Canada, France, Belgium, Luxembourg, Switzerland, South America, Southeast Asia, Africa and the Caribbean as well as in francophone communities in other parts of the world. As research on the treatment of OCD progresses, multilingual measures which are sensitive to treatment effects and variations in symptom type and severity become progressively more important (Taylor, 1995).

Although French versions of the MOCI (Hantouche & Guelfi, 1994) and the PI-WSUR (Freeston et al., 1999) are available, they retain some important limitations. The MOCI has been a widely-used measure for many years. Despite its well-documented psychometric properties, its dichotomous true-false rating scale makes difficult the assessment of gradual symptom change over time, and its four subscales (cleaning, checking, doubting, and obsessional slowness) fail to assess some important symptoms of OCD, such as hoarding and ordering/arranging. In his review of OCD measures, Taylor (1995) recommends the MOCI over other self-report measures because of its assessment of OC-specific symptoms, consistently adequate psychometric properties, and its breadth of symptom measurement. Although the MOCI comprises four subscales, it emphasizes overt rituals such as checking and cleaning. As such, obsessions and covert rituals such as counting or praying are not evaluated (Taylor, 1995; Thordarson et al., 2004). Furthermore, because of this emphasis, respondents who engage in checking and cleaning/washing behaviour may score higher on the MOCI than do individuals with OCD who manifest other symptoms, regardless of severity. Items on the MOCI also measure highly stable constructs (e.g., “Neither of my parents was very strict during my childhood”), which are unlikely to change as a result of treatment, further compromising the assessment of symptom improvement over time (Taylor, 1995; Thordarson et al., 2004). Together, the VOCI and SOAQ

address these issues (see below), greatly improving the measurement of OCD symptoms for both clinical and research purposes.

The PI-WSUR, a revision of the Padua Inventory (PI; Sanavio, 1988) is also a frequently-used self-report measure of OCD. Although the PI holds advantages over other self-report measures of OCD (e.g., two distinct obsessional subscales as well as checking and contamination subscales), research has demonstrated that the PI measures both obsessions and non-specific worry (Freeston, Ladouceur, Rhéaume, Letarte, Gagnon, & Thibodeau, 1994). The PI-WSUR was developed to correct this limitation. Items on the PI-WSUR were each more strongly related to their subscales and to OCD symptoms in general than they were to worry as measured by the Penn-State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990), indicating that the PI-WSUR represented important improvements to the PI in distinguishing between worry and obsessions (Burns et al., 1995). It is highly reliable, as demonstrated by good test-retest reliability and excellent inter-item reliability. However, similar to the MOCI, it neglects some key symptoms such as compulsive hoarding.

A more recent self-report measure of OCD symptoms, the Obsessive-Compulsive Inventory (Foa, et al., 1998) is currently unavailable in French. The English version covers a wide spectrum of OCD symptoms, including washing, checking, doubting, ordering, obsessing, hoarding, and mental neutralizing, but can be difficult for participants to complete and for researchers and clinicians to score, because its items are scored on two dimensions: frequency and distress. Furthermore, its emphasis on compulsive washing and cleaning behaviour may neglect other forms of contamination fears relevant to OCD (Radomsky, Rachman, Herba, Milosevic & Shafran, 2005).

The VOCI and SOAQ were designed to overcome some of the above-mentioned limitations by assessing a broader range of OCD symptoms than did previous self-report questionnaires, while facilitating completion and scoring of the measures by using a 5-point Likert scale. The VOCI measures a variety of obsessions, compulsions, avoidance behaviour and personality characteristics associated with OCD. Revisions to an early version of the scale were made to increase discriminant validity of the scale, and a 55 item scale (now named the VOCI) was distributed to three samples: OCD sufferers, individuals with other anxiety or mood disorders, and undergraduate students (Thordarson et al., 2004).

Additional modifications resulted in the final 55-item version of the VOCI, comprising 6 symptom subscales (Contamination; Checking; Obsessions; Hoarding; Indecisiveness/Perfection/Concern over mistakes; and Routine/Counting/Slowness) which was then administered to 4 samples: OCD-sufferers, who were coded according to symptom manifestation; Anxiety/Depression controls; Community Adults; and Students. A factor analysis was conducted within the OCD sample, and the VOCI subscales were subsequently reorganized as: (a) Checking (6 items); (b) Contamination (12 items); (c) Obsessions (12 items); (d) Hoarding (7 items); (e) Just Right (12 items); and (f) Indecisiveness (6 items) (Thordarson et al., 2004).

The VOCI and its subscales have demonstrated very good internal consistency in a variety of samples (OCD, Anxious/Depressed control, and students) with acceptable Cronbach's α 's for each sample. Convergent and divergent validity were assessed separately for the OCD and student groups. In the OCD sample, correlations between the VOCI and other measures of OCD were very high. Furthermore, the VOCI-PI correlation was significantly higher than the correlation between the VOCI and the Beck Depression Inventory (BDI; Beck, Steer & Brown,

1996) (Thordarson et al., 2004). In a student group, The VOCI-PI correlation and the VOCI-MOCI correlation were significantly higher than the VOCI-BDI correlation, indicating that the VOCI possesses good convergent and divergent validity. Furthermore, the VOCI discriminated well between participants diagnosed with OCD who reported cleaning, checking, obsessional, and hoarding symptoms, as identified by the Yale-Brown Obsessive Compulsive Scale (YBOCS: Goodman et al., 1989). Test-retest reliability in an OCD sample was excellent, while a small student sample demonstrated poor test-retest reliability.

The SOAQ assesses obsessions about symmetry as well as ordering and arranging compulsions and was designed as an optional additional module to the VOCI (Radomsky & Rachman, 2004). An original pool of items was devised by the University of British Columbia (UBC) Fear and Anxiety Disorders Laboratory from theoretical conceptualizations and clinical observations of ordering and arranging symptoms in OCD. A principal components analysis based on responses from a large sample of undergraduate students demonstrated a one-factor solution which accounted for over half of the variance. A revised 20-item SOAQ was administered to a second sample of undergraduate students along with related and unrelated symptom measures. The SOAQ demonstrated excellent internal consistency and excellent test-retest reliability over a 2-3 week time period in a student sample (Radomsky & Rachman, 2004). Good convergent and divergent validity were demonstrated by correlations between the SOAQ and the VOCI, and the SOAQ and the VOCI “Just Right” subscale, which were significantly stronger than correlations between the SOAQ and other measures of psychopathology such as the BDI, and the Beck Anxiety Inventory (BAI; Beck & Steer, 1990). Administered together, the VOCI and SOAQ comprise 7 subscales: (a) Checking; (b) Contamination; (c) Obsessions; (d) Hoarding; (e) Just Right; (f) Indecisiveness; and (g) Symmetry/Ordering.

For this study, the VOCI and SOAQ were translated from English to French by experts in the field. Although the translation of self-report measures can be problematic, Vallerand (1989) has outlined a systematic method for ensuring the original meaning of translated versions of established questionnaires. This study employed a modified version of this multi-step method in collaboration with researchers at the Centre de Recherche Fernand-Séguin (Charette, Léveillé, O'Connor, Péllisier, & Trudel, 2003) who were familiar with the VOCI and SOAQ, using the process of back-translation as described by Vallerand (1989) to generate French versions of the VOCI and SOAQ which measure the same constructs as the original English versions. First, the original English versions of the VOCI and the SOAQ were translated into French. Following this, both measures were translated back into English by a separate group of bilingual translators who were unfamiliar with the original English versions of the VOCI and SOAQ. This standard procedure, known as back-translation, ensures that the meaning of original questionnaire items is preserved in the French translations (Vallerand, 1989). Differences between the original English versions of the VOCI and SOAQ and their back-translated counterparts were limited to the use of synonyms (e.g., my things/belongings/possessions) and did not affect the meaning of any item on either questionnaire, indicating that the French translation was successful.

Volunteer undergraduate students from three Montréal, Québec universities completed these measures in their native language of either French or English, along with language-appropriate versions of other self-report measures of psychopathology. A subset of participants also completed the package a second time for test-retest analysis. It was hypothesized that both the English and French versions of the VOCI and SOAQ would demonstrate excellent and similar psychometric properties.

Method

Participants

Volunteer undergraduate participants from three local universities were recruited for participation in this study. One of these institutions was primarily English-speaking (Concordia University), while the other two were primarily French-speaking (l'Université de Montreal and l'Université du Québec à Montreal). Two hundred two English-speaking [mean age = 23.05 (SD = 5.21), range = 17-50 years, 82.9% female] and two hundred twenty two French-speaking [mean age = 22.97 (SD = 6.33), range = 17-69 years, 83.8% female] students completed and returned questionnaire packages. There were no significant differences in age or gender between the English and French samples. The questionnaire packages included the VOCI, SOAQ, PI-WSUR, CLQ and BDI (see below for descriptions of each measure). Participants' total scores on all measures are displayed in Table 1.

Measures

Vancouver Obsessional Compulsive Inventory (VOCI; Thordarson, Radomsky, Rachman, Shafran, Sawchuk, & Hakstian, 2004). The Vancouver Obsessional-Compulsive Inventory is a 55-item self-report measure designed to assess a broad spectrum of OCD symptoms and associated personality characteristics. Items are rated on a 5-point Likert scale, ranging from 0 (not at all) to 4 (very much), and measure participants' agreement with a series of statements related to obsessions and compulsions (e.g., "I am often very upset by my unwanted impulses to harm other people").

The VOCI has 6 component subscales: (a) Checking; (b) Contamination; (c) Obsessions; (d) Hoarding; (e) "Just Right"; and (f) Indecisiveness. The VOCI possesses excellent inter-item reliability in student, community, OCD, and clinical control populations (Cronbach's $\alpha = .96$,

.90, .94, and .98, respectively). Test-retest reliability for the VOCI total score was high in the OCD sample (Pearson's $r = .96, p < 0.001$), but was markedly lower among students (Pearson's $r = .52, p < 0.01$).

Symmetry, Ordering and Arranging Questionnaire (SOAQ; Radomsky & Rachman, 2004). The Symmetry, Ordering and Arranging Questionnaire is a 20-item self-report measure assessing symmetry obsessions and ordering and arranging compulsions. Items include statements reflecting preference for order (e.g., “The furniture in my home must be in exactly the right spot”), and respondents are asked to indicate how strongly they agree with these statements using the same 5-point Likert scale as does the VOCI.

The English version of the SOAQ was shown to have excellent inter-item reliability (Cronbach's $\alpha = 0.96$), and good convergent and divergent validity (Radomsky & Rachman, 2004). Test-retest reliability for the SOAQ was very high (Pearson's $r = .92, p < 0.001$)

Padua Inventory – Washington State University Revision (PI-WSUR; Burns, Keortge, Formea, & Sternberger, 1996). The Padua Inventory–Washington State University Revision is a self-report measure that consists of 39 items assessing obsessive-compulsive thoughts and actions. Items are rated on a 5-point scale (0 = “not at all” to 4 = “very much”), according to the degree to which respondents are disturbed by the given thought or behaviour (e.g. “I find it difficult to touch garbage or dirty things”). The scale has 5 component subscales: (a) Obsessional thoughts about harm to self/others (OTAHSO); (b) Obsessional impulses to harm self/others (OIHSO); (c) Contamination obsessions and washing compulsions; (d) Checking compulsions; and (e) Dressing/grooming compulsions.

PI-WSUR total score demonstrated good test-retest reliability (Pearson's $r = 0.76$), and the scale possesses excellent inter-item reliability (Cronbach's $\alpha = 0.92$). The French version of the PI-WSUR has also been demonstrated as highly valid and reliable (Freeston et al., 1999).

The Claustrophobia Questionnaire (CLQ; Radomsky, Rachman, Thordarson, McIsaac, & Teachman, 2001). The Claustrophobia Questionnaire is a 26-item self-report measure designed to assess two related fears that are proposed to comprise claustrophobia: the fear of suffocation, and the fear of restriction. Each item is rated on a 5-point Likert scale (0 = "not at all anxious" to 4 = "extremely anxious") according to the degree of anxiety the respondent would feel in a given place or situation (e.g. "Standing for 15 min. in a straightjacket").

The CLQ was shown to possess excellent internal consistency (Cronbach's $\alpha = .95$) and good convergent and divergent validity, as well as high test-retest reliability (Pearson's $r = .89$, $p < 0.001$). It was also shown to have excellent predictive validity. Radomsky, Ouimet, Ashbaugh, Paradis, Lavoie, and O'Connor (2005) recently established that the French version of the CLQ has similar psychometric properties.

The Beck Depression Inventory-II (BDI; Beck, Steer, & Brown, 1996). The BDI is a 21-item measure designed to assess the severity of depressive symptoms experienced by respondents during the two weeks previous to completion. The BDI is a frequently used and highly reliable and valid measure of symptoms of Depression (Beck, Steer, & Brown, 1996).

Procedure

Participants were asked to complete questionnaires in the language they speak most often (English or French), and were permitted to take them home and return them the following week in class, or to complete them in the Fear and Anxiety Disorders Laboratory at Concordia

University. To establish test-retest reliability, 41 English-speaking and 40 French-speaking participants completed the measures a second time after a mean delay of 30.36 (SD = 18.87) days in the English sample and 24.90 (SD = 12.53) days in the French sample. The test-retest interval did not differ significantly between the English and French samples; furthermore, there were no significant differences in scores on any measures at time 1 between participants who completed the measures a second time and those who did not. For their participation, participants were offered the opportunity to enter their names in a draw for cash prizes. See Table 1 for participants' scores on all measures.

Results

Internal Consistency

The English and French VOCI and SOAQ total scores demonstrated excellent and identical internal consistency (Cronbach's α 's = .96). Furthermore, Cronbach's α 's were very good to excellent for all subscales in both languages, ranging from .84 for the Indecisiveness subscale in the English version to .94 for the Checking subscale in the French version.

Test-Retest Reliability

Pearson correlations were calculated between scores at time 1 and scores at time 2 on the subset of French and English participants who completed the questionnaire package twice. As shown in Table 2, both measures demonstrated excellent consistency across time as indicated by strong and significant correlations in both English and French. Similarly, excellent test-retest reliability was demonstrated in English and French for each of the VOCI's subscales.

Convergent and Divergent Validity

Convergent validity was assessed via correlations derived from a comparison of total and subscale scores on the VOCI and SOAQ, and scores on the PI-WSUR and its subscales (see Table 3). VOCI and SOAQ total scores were both significantly correlated with the PI-WSUR in English ($r = .83, p < .001$ and $r = .42, p < .001$, respectively) and French ($r = .86, p < .001$ and $r = .50, p < .001$, respectively). Correlations between VOCI and PI-WSUR subscales demonstrated significant relationships in English and French between VOCI checking and PI-WSUR checking ($r = .81, p < .001$ and $r = .84, p < .001$, respectively); VOCI contamination and PI-WSUR contamination ($r = .87, p < .001$ and $r = .85, p < .001$, respectively); VOCI obsessions and PI-WSUR obsessions, as measured by the sum of the OTHSO and OIHSO subscales ($r = .70, p < .001$ and $r = .72, p < .001$, respectively); and SOAQ total and PI-WSUR dressing/grooming subscale ($r = .57, p < .001$ and $r = .58, p < .001$ respectively).

Divergent validity was assessed using the CLQ and the BDI. Although both of these measures correlated significantly with the VOCI in English ($r = .47, p < .001$ and $r = .47, p < .001$ respectively) and French ($r = .42, p < .001$ and $r = .49, p < .001$ respectively), the VOCI-PI-WSUR correlation was significantly stronger than the VOCI-CLQ correlation in both English ($t(201) = 9.24, p < .001$) and French ($t(221) = 17.39, p < .001$). Similarly, the VOCI-PI-WSUR correlation was significantly stronger than the VOCI-BDI correlation in both English ($t(201) = 8.46, p < .001$) and French ($t(221) = 14.72, p < .001$). Furthermore, the SOAQ-PI-WSUR dressing and grooming correlation was significantly stronger than the SOAQ-CLQ correlation in both English ($t(201) = 4.10, p < .001$) and French ($t(221) = 5.90, p < .001$), and the SOAQ-BDI correlation in both English ($t(201) = 5.77, p < .001$) and French ($t(221) = 6.78, p < .001$).

Normative Data

Participants' scores on the VOCI, its subscales and the SOAQ (see Table 1) were similar to those obtained by the student sample in the original VOCI and SOAQ articles (Radomsky et al., 2004; Thordarson et al., 2004). In the present study, French-speaking participants scored slightly but significantly higher than did English-speaking participants on the VOCI Total ($t(391) = -2.10, p < .04$), VOCI Checking subscale ($t(419) = -2.78, p < .007$), VOCI Hoarding subscale ($t(421) = -2.08, p < .04$), VOCI "Just Right" subscale ($t(413) = -3.00, p < .004$), VOCI Indecisiveness subscale ($t(412) = -2.85, p < .006$), PI-WSUR Total ($t(414) = -2.98, p < .004$), PI-WSUR Checking subscale ($t(417) = -3.10, p < .003$), and the PI-WSUR OTHSO subscale ($t(417) = -3.62, p < .001$), PI-WSUR OIHSO subscale ($t(419) = -3.02, p < .004$), whereas English-speaking participants scored slightly but significantly higher than did French-speaking participants on the BDI ($t(375) = 2.13, p < .04$). French and English participant scores were not significantly different from each other on the VOCI Contamination and Obsessions subscales, the SOAQ total score, the PI-WSUR Contamination and Dressing/Grooming subscales, the CLQ, and the BAI, all p 's $> .05$.

Discussion

The reliability and validity of French and English versions of the VOCI and SOAQ were supported by the results of the present study. The French VOCI and SOAQ demonstrated excellent psychometric properties that were virtually identical to those exhibited by the original English versions of the scales. In brief, current results show that both versions of the scale demonstrate excellent internal consistency, test-retest reliability, convergent and divergent validity. Furthermore, this study demonstrated a notable improvement in test-retest reliability

with all correlations above .83, compared to a reported range of .50 to .60 among students in the original VOCI development/validation study (Thordarson et al., 2004).

These results are consistent with previous demonstrations of the excellent psychometric properties of the VOCI and SOAQ and support their use in a variety of applications. Given recent work on cross-cultural and international aspects of OCD (Fontenelle, et al., 2004; Kyrios, Sanavio, Bhar, & Liguori, 2001; Okasha, et al., 1994), it is hoped that the validation of the French language versions of the VOCI and SOAQ will aid in the investigation of symptoms and mechanisms associated with OCD and related phenomena in a variety of French-speaking countries and communities. Furthermore, the new and encouraging information about the psychometric properties of the original English versions of the scales further supports their use in a variety of assessment, treatment and research domains.

There are a few questions raised by the current results, namely addressing the small but significant differences between French- and English-speaking participants' scores on some of the measures and subscales. It is unclear whether these differences are the result of type I error, language and/or cultural variables or some other factor(s). However, these are empirical questions that could benefit from further investigation.

Limitations of the current study include the absence of clinical samples and the relatively short test-retest interval. However, given the strong psychometric properties of the VOCI in clinical samples reported by Thordarson, et al. (2004) and the near-identical properties of the VOCI and SOAQ among French- and English-speaking undergraduate students demonstrated above, it is likely a reasonable assumption that similar properties would be shown in French- and English-speaking clinical respondents. As for test-retest intervals, the current intervals of 30.4 and 24.9 days for the English- and French-speaking samples respectively, are well within the

range of previous test-retest intervals used to evaluate these scales. The original VOCI validation intervals were approximately 11 days for undergraduate students and 47 days for participants diagnosed with OCD (Thordarson, et al., 2004). The SOAQ test-retest interval was 16.2 days (Radomsky & Rachman, 2004). While a longer delay would be desirable, the current interval is clearly acceptable and the test-retest correlations are strong and significant. This supports the use of the scales in studies that address a variety of questions including shorter-term evaluations of treatment components and questions about cognitive and behavioural mechanisms of OCD.

It is anticipated that, in line with previous research using these measures, future investigations will employ the VOCI and SOAQ to address a variety of important questions in the literature. These include, but are not limited to questions about proposed OCD subtypes, relationships between symptoms and beliefs in OCD, and those relevant to recent calls for “subtype-specific” research (McKay, et al., 2004; Radomsky & Taylor, 2005) as one of the major strengths of these measures is their ability to assess symptoms in previously neglected manifestations of OCD such as hoarding, obsessions and symmetry, ordering and arranging compulsions. The scales are easy to score and relatively brief, although the VOCI may benefit from a revision that results in a somewhat shorter scale. Given the heterogeneous nature of OCD, this may be a difficult challenge, but a revised and shortened VOCI which maintains the psychometric properties of the larger scale would be an asset in the assessment, research and treatment of OCD.

Based on the above, it is hoped that the two scales are used in a variety of applications and that their further development, where necessary, continues to improve upon our ability to assess the wide variety of symptoms and features of obsessive-compulsive disorder.

Author Notes

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Table 1. Normative Data on All Measures

	<i>Mean</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>Max. Possible</i>
VOCI Total (English)					
Test (<i>n</i> = 191)	30.74	26.07	0.00	144.00	220.00
Retest (<i>n</i> = 40)	26.75	29.90	0.00	142.00	220.00
VOCI Total (French)					
Test (<i>n</i> = 202)	36.58	29.04	0.00	147.00	220.00
Retest (<i>n</i> = 38)	37.21	35.62	0.00	162.00	220.00
SOAQ Total (English)					
Test (<i>n</i> = 193)	14.37	14.20	0.00	72.00	80.00
Retest (<i>n</i> = 40)	11.08	13.50	0.00	54.00	80.00
SOAQ Total (French)					
Test (<i>n</i> = 40)	13.65	13.75	0.00	71.00	80.00
Retest (<i>n</i> = 40)	14.33	13.43	0.00	55.00	80.00
Checking (English)					
Test (<i>n</i> = 200)	2.85	4.50	0.00	21.00	24.00
Retest (<i>n</i> = 41)	2.76	5.14	0.00	19.00	24.00
Checking (French)					
Test (<i>n</i> = 221)	4.22	5.55	0.00	24.00	24.00
Retest (<i>n</i> = 40)	4.53	6.68	0.00	24.00	24.00
Contamination (English)					
Test (<i>n</i> = 198)	5.57	6.28	0.00	34.00	48.00
Retest (<i>n</i> = 41)	4.76	6.52	0.00	27.00	48.00
Contamination (French)					
Test (<i>n</i> = 221)	5.76	6.54	0.00	33.00	48.00
Retest (<i>n</i> = 40)	5.98	7.74	0.00	30.00	48.00
Obsessions (English)					
Test (<i>n</i> = 197)	5.23	6.91	0.00	48.00	48.00
Retest (<i>n</i> = 41)	3.78	5.44	0.00	23.00	48.00
Obsessions (French)					
Test (<i>n</i> = 217)	5.42	6.58	0.00	33.00	48.00
Retest (<i>n</i> = 39)	5.59	6.96	0.00	28.00	48.00
Hoarding (English)					
Test (<i>n</i> = 201)	4.33	4.50	0.00	22.00	28.00
Retest (<i>n</i> = 41)	4.00	5.07	0.00	19.00	28.00
Hoarding (French)					
Test (<i>n</i> = 222)	5.34	5.34	0.00	24.00	28.00
Retest (<i>n</i> = 40)	5.13	5.73	0.00	26.00	28.00
Just Right (English)					
Test (<i>n</i> = 198)	7.90	6.92	0.00	32.00	48.00
Retest (<i>n</i> = 40)	6.40	8.40	0.00	38.00	48.00
Just Right (French)					
Test (<i>n</i> = 217)	10.05	7.63	0.00	34.00	48.00
Retest (<i>n</i> = 39)	9.77	8.97	0.00	32.00	48.00
Indecisiveness (English)					

Test (<i>n</i> = 200)	5.19	4.43	0.00	19.00	24.00
Retest (<i>n</i> = 40)	6.40	8.40	0.00	23.00	24.00
Indecisiveness (French)					
Test (<i>n</i> = 214)	6.50	4.88	0.00	19.00	24.00
Retest (<i>n</i> = 40)	5.35	5.10	0.00	22.00	24.00
BDI (English)					
Test (<i>n</i> = 185)	11.22	9.67	0.00	57.00	63.00
Retest (<i>n</i> = 40)	9.93	8.29	0.00	39.00	63.00
BDI (French)					
Test (<i>n</i> = 192)	9.21	8.59	0.00	56.00	63.00
Retest (<i>n</i> = 40)	8.00	7.11	0.00	31.00	63.00
PI-WSUR (English)					
Test (<i>n</i> = 200)	17.71	15.85	0.00	100.00	156.00
Retest (<i>n</i> = 41)	17.12	18.23	0.00	90.00	156.00
PI-WSUR (French)					
Test (<i>n</i> = 216)	22.55	17.18	0.00	84.00	156.00
Retest (<i>n</i> = 40)	24.65	22.61	0.00	84.00	156.00
CLQ (English)					
Test (<i>n</i> = 180)	24.64	15.44	0.00	84.00	104.00
Retest (<i>n</i> = 38)	21.03	14.21	0.00	68.00	104.00
CLQ (French)					
Test (<i>n</i> = 208)	25.75	15.84	0.00	79.00	104.00
Retest (<i>n</i> = 38)	22.76	16.09	2.00	56.00	104.00

Sample sizes varied across measures because some participants did not complete all items. Data were excluded on a case by case basis when an item was left blank on a questionnaire.

Table 2. Test-Retest correlations (Pearson's r) for the VOCI, its subscales and the SOAQ in English and French.

Measure	<i>Language in which measures were completed</i>	
	English	French
VOCI Total score	.91* ($n = 39$)	.94* ($n = 37$)
VOCI Checking subscale	.93* ($n = 40$)	.96* ($n = 40$)
VOCI Contamination subscale	.90* ($n = 40$)	.90* ($n = 40$)
VOCI Obsessions subscale	.76* ($n = 40$)	.89* ($n = 39$)
VOCI Hoarding subscale	.85* ($n = 40$)	.88* ($n = 40$)
VOCI Just Right subscale	.87* ($n = 39$)	.92* ($n = 39$)
VOCI Indecisiveness subscale	.91* ($n = 40$)	.83* ($n = 38$)
SOAQ Total score	.86* ($n = 39$)	.88* ($n = 39$)

* $p < .001$