INDIVIDUAL DIFFERENCES IN THOUGHT SUPPRESSION.
THE WHITE BEAR SUPPRESSION INVENTORY: FACTOR
STRUCTURE, RELIABILITY, VALIDITY AND CORRELATES

PETER MURIS,* HARALD MERCKELBACH and
ROBERT HORSELENBERG
Department of Experimental Abnormal Psychology, Limburg University, P.O. Box 616, 6200 MD
Maastricht, The Netherlands

(Received 20 October 1995)

of Personality, 62, 615–640] is a self-report questionnaire measuring people's general tendency to suppress
unwanted negative thoughts. The current article describes two studies investigating the reliability, factor
structure, validity, and correlates of the WBSI. Study 1 (n = 172) showed that the WBSI is a reliable
instrument in terms of internal consistency and test–retest stability. Factor analyses of the WBSI revealed
a 1-factor solution. Furthermore, the WBSI was found to correlate positively with measures of emotional
vulnerability and psychopathological symptoms. In Study 2 (n = 40), the relationship between WBSI and
levels of intrusive thinking was examined in more detail, using a thought suppression task. In general,
results of this thought suppression experiment provided evidence for the validity of the WBSI. That is,
subjects with high WBSI scores exhibited higher frequencies of unwanted intrusive thoughts than subjects
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INTRODUCTION

Research in the past two decades has shown that intrusive thoughts are relatively common among
normal and clinical subjects (Freeston, Ladouceur, Thibodeau & Gagnon, 1991; Purdon & Clark,
1993; Rachman & de Silva, 1978; Salkovskis & Harrison, 1984; Wells & Morrison, 1994). Given
the unwanted nature of intrusive thoughts, people often attempt to suppress them. However, trying
to suppress thoughts may actually make these thoughts more intrusive (e.g. Salkovskis, 1989;

The experimental analysis of the effects of thought suppression started in 1987 when Wegner,
Schneider, Carter and White (1987) published their ‘white bear’ experiment. The general outline
of this experiment was as follows: normal subjects were assigned to one of two groups. The first
group was an initial suppression group that was instructed to suppress the thought of a ‘white bear’
for a 5 min period. Following this, subjects were given expression instructions, i.e. they were invited
to think about a white bear during a 5 min period. In the second group, termed the initial expression
group, the order of instructions was reversed. That is to say, initial expression subjects first engaged
in expression and later in suppression. All subjects were asked to ring a bell whenever the thought
of a white bear occurred to them. Wegner and associates (1987; see also Wegner, Schneider,
Knutson & McMahon, 1991; Wenzlaff, Wegner & Klein, 1991) found that subjects reported a
heightened frequency of white bear thoughts when they had previously engaged in suppression.
Accordingly, Wegner and co-workers concluded that suppression of unwanted thoughts leads to
a rebound effect, i.e. an exacerbation of such thoughts later on.

The rebound effect has been replicated in several analogue studies. For example, using a similar
design as Wegner et al. (1987), Clark and colleagues (Clark, Ball & Pape, 1991; Clark, Winton &
Thynn, 1993) showed that suppression of a neutral thought item (i.e. ‘green rabbit’), indeed,
resulted in a heightened level of subsequent intrusions. In a further study by Davies and Clark

*Author for correspondence.
(1992), subjects were shown a distressing movie. Again, it was found that subjects who had previously suppressed thoughts about the movie were more plagued by intrusions during a subsequent period than subjects who had not previously suppressed. Muris and Merckelbach (1991) found data to suggest that thought suppression produces rebound effects over longer time periods. Subjects were asked to read a transcription of Freud’s Ratman obsession. Half of the subjects were then instructed to avoid all thoughts about this transcription during a 10 min period, while the other half were free to think about anything. After 1 week, subjects were interviewed about the frequency of thoughts concerning the transcription that they had experienced in the past week. It was found that subjects who had engaged in suppression reported more thoughts related to the Ratman transcription than control subjects. Interestingly, Cioffi and Holloway (1993) demonstrated that the rebound effect of thought suppression has an analogue in the experience of somatic discomfort. During a cold-pressor pain induction, subjects were instructed either to seek distraction from pain sensations, to monitor these sensations, or to suppress such sensations. Results revealed that suppression produced the slowest recovery from the pain. Moreover, suppression had a negative influence on the interpretation of a later somatic experience. That is, subjects who had previously suppressed their cold pressor pain rated an innocuous vibration as more unpleasant than the other subjects.

Several authors stressed the immediate counterproductive effect of thought suppression rather than its delayed rebound effect. This initial enhancement effect was observed in several laboratory studies. In an experiment by Lavy and van den Hout (1990), subjects were assigned to one of two conditions. Subjects in the suppression condition were instructed ‘not to think of vehicles’, whereas subjects in the control condition were free to think of anything. Results showed that subjects in the thought suppression condition had more thoughts about vehicles than subjects in the control condition. More relevant to psychopathology, Wenzlaff, Wegner and Roper (1988) found that depressed subjects exhibited a deficit in the ability to suppress unwanted negative thoughts. More specifically, results showed that the success of depressed subjects’ suppression efforts was short-lived, in that even while they tried to suppress they experienced a resurgence of unwanted thoughts about a negative item (see for similar findings Conway, Howell & Giannopoulos, 1991).

In another study, Wegner, Shorlt, Blake and Page (1990) found that suppression of an exciting thought, i.e. the thought of sex, promotes excitement, as indexed by an elevation in skin conductance levels. Further evidence for the initial enhancement effect was provided by Salkovskis and colleagues. In a series of experiments (Salkovskis & Reynolds, 1994; Salkovskis & Campbell, 1994; Trinder & Salkovskis, 1994), they demonstrated that suppression of personally-relevant thoughts (i.e. thoughts of smoking; naturally occurring negative thoughts) was associated with increased intrusions.

Interestingly, Becker, Roth and Margraf (1994) investigated the immediate enhancement effect in patients with a generalized anxiety disorder (GAD). In that study, a group of GAD patients and a control group were asked to verbalise their stream of consciousness for two 5 min periods. During the first period, subjects of both groups received instructions ‘not to think of a white bear’. During the second period, subjects of both groups were asked ‘not to think of their main worry’.

Results indicated that GAD patients were able to suppress thoughts of white bears just as well as control group subjects. However, GAD patients appeared to be worse at controlling thoughts of their main worry.

To sum up then, analogue as well as clinical studies provide evidence for the paradoxical effects of thought suppression. Meanwhile, it is worth noting that a number of studies have failed to obtain such effects (Kelly & Kahn, 1994; Mathews & Milroy, 1994; Merckelbach, Muris, van den Hout & de Jong, 1991; Muris, Merckelbach, van den Hout & de Jong, 1992; Roemer & Borkovec, 1994; Rutledge, Hollenberg & Hancock, 1993; Smári, Sigurjónsdóttir & Samundsdóttir, 1994). Nevertheless, several authors have emphasized that thought suppression is relevant to the understanding of emotional disorders. For instance, Wegner (1988, 1989, 1992) has argued that thought suppression plays a role in the etiology of obsessions. According to Wegner (1989, p.167), “an obsession can grow from nothing but the desire to suppress a thought”. In other words, thought suppression may cause obsessive thinking. Likewise, other authors have proposed that thought suppression may be responsible for the development and maintenance of unwanted intrusive thinking that accompanies
emotional disorders such as obsessive–compulsive disorder, post-traumatic stress disorder, depression, phobias and generalized anxiety disorder (e.g. Salkovskis, 1989).

In daily life, one is regularly confronted with experiences that produce depressive, anxiety-provoking, or socially unacceptable thoughts. It is self-evident that ('normal') people occasionally choose to suppress these thoughts. Apart from the incidental employment of thought suppression, Wegner and Zanakos (1994) recently suggested that there may be individuals who show a general tendency to use thought suppression across a variety of situations and thought topics. To measure individual differences in the extent to which persons rely on suppression, these authors devised a self-report measure termed the White Bear Suppression Inventory (WBSI). In view of the counterproductive effects generated by thought suppression, one would expect 'chronic' suppressors to exhibit heightened frequencies of unwanted (e.g. depressive, anxiety-producing, and socially unacceptable) thoughts, and possibly more severe psychopathological symptomatology. Indeed, Wegner and Zanakos (1994) found that WBSI scores correlated positively with measures of obsessional thinking, and depressive and anxious affect. In addition, the WBSI predicted symptoms of obsession and depression in subjects who were prone to develop these psychopathological phenomena.

Research concerned with individual differences in thought suppression may shed light on the question as to why some studies have failed to document clear-cut rebound and/or initial enhancement effects. In view of this, and given the clinical relevance of the counterproductive effects of suppression, two studies were carried out to examine the WBSI in more detail. Study 1 aimed to replicate the findings of Wegner and Zanakos (1994), and investigated the psychometric properties and psychopathological correlates of the WBSI. The purpose of Study 2 was 2-fold. First, the relationship between WBSI and self-reported intrusive thinking was further examined. Second, two thought suppression experiments were carried out in which subjects with high and low WBSI scores were either instructed to suppress or to record personally relevant intrusions inside and outside the laboratory.

STUDY 1: PSYCHOMETRIC PROPERTIES AND CORRELATES OF THE WBSI

The first aim of this study was to investigate a number of psychometric properties of the WBSI: i.e. test–retest stability, internal consistency and factor structure. The second purpose was to examine the association between WBSI and self-report measures of obsessive thinking, depression and anxiety. The third and final aim of Study 1 was to explore the relationship between thought suppression as indexed by the WBSI and a number of specific thought control strategies. As Wells and Davies (1994) rightly remarked: “Thought suppression has been defined as an effort ‘not to think about’ a particular thought. As such, it is defined in terms of its goals rather than in terms of the strategy or strategies used to achieve this goal” (p. 871). Interestingly, Wells and Davies developed a questionnaire, the Thought Control Questionnaire (TCQ), which intends to identify and to measure a number of specific strategies that can be used to control (i.e. suppress) unwanted thoughts. It was expected that thought suppression as indexed by the WBSI correlated positively with the employment of specific thought control strategies.

Method

Subjects. Subjects were 172 female health sciences students of Limburg University who participated in the study for a small financial compensation. They had a mean age of 19.5 (SD = 1.6; range: 18–29 years). A gender-homogeneous group was used because women were more available, and because Wegner and Zanakos (1994) found sex differences on the WBSI with women exhibiting significantly higher thought suppression scores than men.

Measures. The WBSI (Wegner & Zanakos, 1994) is a 15-item questionnaire measuring people's general tendency to suppress thoughts. It asks subjects to indicate on a 5-point scale the extent to which they agree (1 = strongly disagree; 5 = strongly agree) with statements such as: 'There are things I prefer not to think about', 'I have thoughts I cannot stop', and 'There are thoughts that keep jumping into my head' (see Table 1). Responses are summed to yield a total score that ranges from 15 to 75.
Trait anxiety was measured using the Y2-version of the State-Trait Anxiety Inventory (STAI; Spielberger, 1983; \( \alpha = 0.90 \)). STAI-trait anxiety scores range between 20 (almost never anxious) and 80 (almost always anxious).

Neuroticism was assessed with the N-scale of the short revised version of the Eysenck Personality Questionnaire (EPQ; Eysenck, Eysenck & Barrett, 1985; \( \alpha = 0.76 \)). Scores on the N-scale vary between 0 and 12.

The Maudsley Obsessive–Compulsive Inventory (MOCI; Hodgson & Rachman, 1977; \( \alpha = 0.64 \)) comprises 30 true–false items which refer to obsessive–compulsive symptoms. MOCI total scores range between 0 and 30.

The Student Worry Scale (SWS; Davey, 1993; \( \alpha = 0.60 \)) is a 10-item scale which asks Ss how much they worry about 10 content areas relevant to students (e.g. financial concerns, academic matters, etc.). Subjects are asked to indicate on a 4-point scale the extent to which they worry about each item (1 = almost never; 4 = almost always). An overall score of worrying is obtained by summing the scores on the items (range: 10–40).

The Beck Depression Inventory (BDI; Beck, Rush, Shaw & Emery, 1979; \( \alpha = 0.77 \)) is an instrument measuring depressive symptomatology. Subjects have to rate the severity of 21 depressive symptoms on a 4-point scale ranging from 0 (symptom not present) to 3 (symptom very intense). Total BDI scores range between 0 and 63.

The Unwanted Intrusions Questionnaire (UIQ; \( \alpha = 0.85 \)) was designed for the purpose of this study and contained 37 thought items (e.g. 'The thought of being aggressive to another person'). These items were derived from Rachman and de Silva’s (1978) article on normal and abnormal obsessions. Subjects were asked to rate each thought item on a 5-point frequency scale ranging from 1 (never) to 5 (more than once a week). A total UIQ frequency score was derived by summing the scores on all items (range 37–185).

The Thought Control Questionnaire (TCQ; Wells & Davies, 1994) is an instrument that measures strategies that can be used to control unpleasant and unwanted thoughts. The TCQ consists of 30 items which can be assigned to 5 subscales: distraction (e.g. 'I do something that I enjoy'; \( \alpha = 0.80 \)), social control (e.g. 'I ask my friends if they have similar thoughts'; \( \alpha = 0.83 \)), worry (e.g. 'I focus on different negative thoughts'; \( \alpha = 0.75 \)), punishment (e.g. 'I punish myself for thinking the thought'; \( \alpha = 0.68 \)), and re-appraisal (e.g. 'I try to reinterpret the thought'; \( \alpha = 0.64 \)). Each item has to be checked on a 4-point rating scale (1 = never; 4 = almost always). A total TCQ score can be obtained by summing the scores of the individual subscales (\( \alpha = 0.77 \)).

**Procedure.** Subjects came in groups of 1–10 to the experimental room and completed the questionnaires. A research assistant was present during the 1 hr in which Ss completed the questionnaires. The assistant instructed the Ss and answered questions. A subsample (n = 40) of the 172 Ss returned to the laboratory 12 weeks later. This sample completed the WBSI for a second time, so that test–retest correlations could be obtained.

![Table 1. The White Bear Suppression Inventory (WBSI)](image)

<table>
<thead>
<tr>
<th>Item</th>
<th>Correlation with scale total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There are thing I prefer not to think about.</td>
<td>0.47</td>
</tr>
<tr>
<td>2. Sometimes I wonder why I have the thoughts I do.</td>
<td>0.47</td>
</tr>
<tr>
<td>3. I have thoughts that I cannot stop.</td>
<td>0.66</td>
</tr>
<tr>
<td>4. There are images that come to mind that I cannot erase.</td>
<td>0.70</td>
</tr>
<tr>
<td>5. My thoughts frequently return to one idea.</td>
<td>0.53</td>
</tr>
<tr>
<td>6. I wish I could stop thinking of certain things.</td>
<td>0.73</td>
</tr>
<tr>
<td>7. Sometimes my mind races so fast I wish I could stop it.</td>
<td>0.56</td>
</tr>
<tr>
<td>8. I always try to put problems out of mind.</td>
<td>0.30</td>
</tr>
<tr>
<td>9. There are thoughts that keep jumping into my head.</td>
<td>0.56</td>
</tr>
<tr>
<td>10. Sometimes I stay busy just to keep thoughts from intruding on my mind</td>
<td>0.51</td>
</tr>
<tr>
<td>11. There are things that I try not to think about.</td>
<td>0.67</td>
</tr>
<tr>
<td>12. Sometimes I really wish I could stop thinking.</td>
<td>0.61</td>
</tr>
<tr>
<td>13. I often do things to distract myself from my thoughts.</td>
<td>0.58</td>
</tr>
<tr>
<td>14. I often have thoughts that I try to avoid.</td>
<td>0.73</td>
</tr>
<tr>
<td>15. There are many thoughts that I have that I don’t tell anyone.</td>
<td>0.35</td>
</tr>
</tbody>
</table>

**Note:** Items are answered on a 5-point scale with 1 = strongly disagree and 5 = strongly agree. Correlations are calculated with scale total less the relevant item (n = 172).
Table 2. Correlations between WBSI and measures of intrusive thinking, anxiety and depression and partial correlations between WBSI and these measures while holding trait anxiety (STAI) and neuroticism (EPQ-N) constant

<table>
<thead>
<tr>
<th></th>
<th>WBSI (controlling for STAI)</th>
<th>WBSI (controlling for EPQ-N)</th>
<th>WBSI (controlling for STAI &amp; EPQ-N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAI</td>
<td>0.57***</td>
<td>0.14</td>
<td>0.13</td>
</tr>
<tr>
<td>EPQ-N</td>
<td>0.40***</td>
<td>0.24**</td>
<td>0.26***</td>
</tr>
<tr>
<td>SWS</td>
<td>0.38***</td>
<td>0.27***</td>
<td>0.40***</td>
</tr>
<tr>
<td>BDI</td>
<td>0.54***</td>
<td>0.19*</td>
<td>0.17*</td>
</tr>
<tr>
<td>MOCI</td>
<td>0.35***</td>
<td>0.23**</td>
<td>0.25**</td>
</tr>
<tr>
<td>UIQ</td>
<td>0.40***</td>
<td>0.22**</td>
<td></td>
</tr>
</tbody>
</table>

n = 172; *P < 0.05; **P < 0.01; ***P < 0.001
STAI, State-Trait Anxiety Inventory (trait version); EPQ-N, Eysenck Personality Inventory—Neuroticism scale; SWS, Student Worry Scale; BDI, Beck Depression Inventory; MOCI, Maudsley Obsessive–Compulsive Inventory; UIQ, Unwanted Intrusions Questionnaire.

Results

Reliability and factor structure of the WBSI. Internal consistency of the WBSI (Cronbach’s alpha) was good, \( \alpha = 0.89 \). The (12 weeks) test–retest correlation of WBSI scores also appeared to be satisfactory: 0.80 (\( n = 40; P < 0.001 \)). Mean WBSI scores (and standard deviations) on occasions 1 and 2 were 44.5 (SD = 15.3) and 47.7 (SD = 11.9).

A factor analysis (principal components with VARIMAX rotation) revealed 4 factors with eigenvalues greater than 1.0. The scree plot, however, clearly suggested a 1-factor solution accounting for 40.9% of the variance (eigenvalues of the 4 factors were 6.1, 1.6, 1.1 and 1.0). Furthermore, it was found that all WBSI items loaded convincingly on the first factor (i.e. all factor loadings were > 0.40).

The items of the WBSI are shown in Table 1. Corrected item-total correlations are also given in this table.

Association with measures of intrusive thinking, anxiety, and depression. Table 2 shows Pearson product-moment correlations between WBSI and the other self-report measures. As can be seen in the left column of this table, WBSI correlated significantly with trait anxiety (STAI) and neuroticism (EPQ-N). In addition, WBSI was positively associated with symptom measures of depression (BDI), obsession–compulsion (MOCI) and intrusive thinking (UIQ). Trait anxiety (STAI) and neuroticism (EPQ-N) can best be regarded as emotional vulnerability measures (see e.g. Eysenck, 1992). In order to assess whether WBSI scores and state or symptom measures share unique sources of variance (independent of levels of trait anxiety and/or neuroticism), partial correlations were calculated. Most correlations remained significant when the influence of trait anxiety or neuroticism was partialled out, although partialling out the influence of these trait measures clearly attenuated the correlations between WBSI on the one hand and state or symptom measures on the other hand (see right-hand columns of Table 2).

Relation with specific thought control strategies. Pearson product-moment correlations between WBSI on the one hand and specific thought control strategies on the other hand were found to be positive for TCQ distraction \( [r(172) = 0.21, P < 0.01] \), TCQ worry \( [r(172) = 0.22, P < 0.01] \), TCQ punishment \( [r(172) = 0.33, P < 0.001] \) and TCQ re-appraisal \( [r(172) = 0.15, P < 0.05] \), but negative for TCQ social control \( [r(172) = -0.17, P < 0.05] \). Thus, as expected, thought suppression was positively associated with the use of most thought control strategies. This positive association was also reflected in the correlation between WBSI and TCQ total score \( [r(172) = 0.21, P < 0.01] \) and \( r(172) = 0.35, P < 0.001 \) when excluding TCQ social control.

Analyses with corrected WBSI version. Five items of the WBSI (i.e. ‘I have thoughts that I cannot stop’, ‘There are images that come to my mind that I cannot erase’, ‘Sometimes I wonder why I have the thoughts I do’, ‘My thoughts frequently return to one idea’ and ‘There are thoughts that keep jumping into my head’) allude to the intrusiveness of unwanted thoughts and not to thought suppression per se. Hence, it seems intuitively plausible to argue that the WBSI taps thought suppression as well as intrusive thinking. Therefore, all major analyses were repeated with a WBSI version in which the intrusion items were removed (i.e. corrected WBSI version). Basically, the
findings with this corrected WBSI version were highly similar to those obtained with the original WBSI. For example, Cronbach’s alpha and test–retest correlation of the corrected WBSI were 0.84 and 0.80 (P < 0.001), respectively. Furthermore, correlations between corrected WBSI and measures of depression [BDI: \( r(172) = 0.52, P < 0.001 \)], anxiety [STAI: \( r(172) = 0.53, P < 0.001 \)], worry [SWS: \( r(172) = 0.33, P < 0.001 \)], obsession–compulsion [MOCI: \( r(172) = 0.30, P < 0.001 \)] and intrusive thinking [UIQ: \( r(172) = 0.36, P < 0.001 \)] remained positive and significant. Finally, corrected WBSI scores were associated with the employment of specific thought control strategies: \( r(172) = 0.25 \) (P < 0.01) with TCQ distraction, \( r(172) = -0.20 \) (P < 0.05) with TCQ social control, \( r(172) = 0.21 \) (P < 0.01) with TCQ worry, \( r(172) = 0.37 \) (P < 0.001) with TCQ punishment, \( r(172) = 0.13 \) (P < 0.10) with TCQ reappraisal and \( r(172) = 0.22 \) (P < 0.01) with TCQ total score.

**Discussion**

The results of Study 1 can be summarized as follows. First of all, the psychometric qualities of the WBSI were found to be satisfactory: test–retest reliability and internal consistency were high. Furthermore, factor analysis of the WBSI revealed a clear 1-factor solution. This is consistent with the findings of Wegner and Zanakos (1994).

Second, like the study of Wegner and Zanakos (1994), WBSI scores were found to be positively related to measures of emotional vulnerability and psychopathological symptoms. Most of the positive associations between WBSI and measures of psychopathology remained significant, when the influence of dispositional variables of emotional vulnerability such as trait anxiety or neuroticism were cancelled out. This suggests that the WBSI taps a unique factor that is independent of traditional trait measures. It should be noted, however, that it is not possible to establish the causal priority of suppression and symptoms from these correlational data. That is to say, it is not clear whether suppression is an antecedent or a consequence of psychopathological symptoms.

Third, as expected, individual levels of thought suppression were positively related to the employment of specific thought control strategies. This was true for all TCQ subscales, except for social control which appeared to be negatively associated with WBSI scores. Perhaps social control is more than just a thought control strategy. Inspection of TCQ social control items, indeed, reveals that this subscale comes very close to what coping researchers have named social support seeking strategies (see e.g. Carver, Seheier & Weintraub, 1989). In other words, it is possible that this subscale is a reflection of a general way of coping rather than a specific strategy of thought control. Furthermore, WBSI scores appeared to be most strongly related to TCQ worry and TCQ punishment. The finding that subjects with high WBSI scores more frequently employ these thought control strategies may be related to the higher symptom levels of such subjects. In agreement with this interpretation, Wells and Davies (1994) found that precisely TCQ worry and TCQ punishment were associated with measures of emotional vulnerability and psychopathology.

**STUDY 2. THE RELATIONSHIP BETWEEN WBSI AND INTRUSIVE THINKING**

**Subjects.** Three months after the questionnaires had been completed, a subsample of the subjects of Study 1 were asked to participate in Study 2. Subjects were selected on the basis of two criteria. First of all, they had to report an unwanted intrusive thought which was experienced at least once a month, and which caused considerable distress. Second, in order to create extreme ‘thought suppression’ groups, the 22 subjects with the lowest WBSI scores and the 22 subjects with the highest WBSI scores were selected. Eventually, 40 subjects agreed to participate: 21 low WBSI subjects and 19 high WBSI subjects. WBSI scores in the first group were all below 42 (for corrected WBSI: below 27), WBSI scores in the second group were all higher than 54 (for corrected WBSI: higher than 36). The mean age of the final sample was 19.5 years (SD = 1.3). Subjects received an additional financial compensation for their participation in Study 2.

**Part 1**

Study 1 revealed a positive relationship between WBSI scores and the frequency of unwanted intrusions as indexed by the UIQ. That is, subjects with a strong tendency to suppress unwanted negative thoughts more often report such thoughts than subjects with a weak tendency to suppress. The purpose of Part 1 of Study 2 was to examine the relationship between WBSI and intrusive thinking in a prospective manner. According to Wegner and Zanakos (1994), the trait of ‘thought
suppression’ can best be regarded as a vulnerability factor to obsessional thinking. Indeed, Wegner and Zanakos (1994) found WBSI scores to predict signs of clinical obsessions. The present study further examined the predictive power of the WBSI in a longitudinal design. More specifically, it was tested whether Time 1 WBSI scores can predict Time 2 UIQ levels, even when Time 1 UIQ levels are taken into account (i.e. when Time 1 UIQ levels are partialled out).

Method

Subjects were asked to complete the UIQ for a second time (i.e. Time 2 UIQ). In a previous session, 12 weeks earlier (see Study 1), they had filled in the UIQ (i.e. Time 1 UIQ), the WBSI and two other measures of emotional vulnerability (i.e. STAI and EPQ-N).

Results and discussion

Table 3 presents correlations between WBSI, STAI, EPQ-N on the one hand and UIQ measures on the other hand. As can be seen, both WBSI and STAI accounted for a significant proportion of the variance of Time 2 UIQ scores, independent of Time 1 UIQ levels. The correlations between corrected WBSI and UIQ measures were 0.40 (P < 0.05) on occasion 1, 0.57 (P < 0.001) on occasion 2, and 0.44 (P < 0.01) on occasion 2, when holding Time 1 UIQ constant.

In a stepwise regression analysis with Time 1 UIQ, WBSI, STAI and EPQ-N being the predictors, and Time 2 UIQ being the dependent variable, Time 1 UIQ entered on the first step (r^2 = 0.49). Of the additional predictors only WBSI contributed significantly to Time 2 UIQ scores, and was included in the regression equation [F(2,37) = 24.6], accounting for a further 8% of the variance. This result indicates that WBSI has predictive power for the frequency of unwanted intrusions independent of initial levels of intrusive thinking.

To study the relationship between WBSI and level of intrusive thinking in more detail, a 2 (WBSI: low/high score) x 2 (UIQ: Time 1/Time 2) MANOVA with the last factor being a repeated measure, was also carried out. This MANOVA revealed a main effect of WBSI [F(1,38) = 11.1, P < 0.005]: subjects with high WBSI scores exhibited higher levels of intrusive thinking than subjects with low WBSI scores. Furthermore, a significant time effect [F(1,38) = 7.1, P < 0.05] and a marginally significant interaction of WBSI with time [F(1,38) = 3.2, P = 0.08] was found. Inspection of the mean UIQ scores revealed that subjects with high WBSI scores maintained their relatively high level of intrusive thinking: means at Time 1 and Time 2 being 89.1 (SD = 10.3) and 87.6 (SD = 11.5), respectively. On the other hand, subjects with low WBSI scores exhibited a decline in frequency of intrusive thoughts: means at Time 1 and Time 2 being 80.2 (SD = 14.2) and 72.9 (SD = 12.6), respectively.

Taken together, these results support the notion that thought suppression plays a role in the development and/or maintenance of obsessional thinking. Results further indicate that the WBSI has incremented validity in predicting the later occurrence of intrusive thoughts, when initial levels of intrusive thoughts are controlled for.

Part 2

Little is known about the role that individual differences in intrusion and suppression play in the effects of experimental thought suppression. As to the present authors’ knowledge, only one study has investigated this issue. Smári, Birgisdóttir and Brynjólfsdóttir (1995) examined the role of obsessive–compulsive symptoms (as indexed by the MOCI) in subjects who suppressed personally relevant unwanted intrusions. The results of this study revealed an interaction between obsessive–compulsive symptoms and instruction. That is to say, subjects high on obsessive–compulsive symptoms reported more target thoughts when they were instructed to suppress than Ss low on obsessive–compulsive symptoms.
Thus far, the counterproductive effects of thought suppression have been predominantly documented in laboratory experiments (e.g. Wegner et al., 1987). One could argue that initial enhancement and rebound effects of thought suppression may both be the products of intense and short-lived efforts and be confined to the artificial environment of the laboratory. To test this proposition, Trinder and Salkovskis (1994) employed a design in which they aimed to study the effects of thought suppression in a more naturalistic setting and over a longer time period. Subjects were asked to record occurrences of personally relevant negative intrusive thoughts over a period of 4 days. One group was to suppress the thought, another group was instructed to record the thought whenever it occurred, whereas a third group was asked to think about the thought as much as possible. Results showed that subjects who suppressed their thoughts reported more intrusions and experienced them as more uncomfortable than subjects in the other two groups.

Part 2 investigated whether the general tendency to suppress unwanted intrusions as measured by the WBSI is a moderating factor in a thought suppression experiment. Subjects were either instructed to suppress or to record a personally relevant intrusion. This was not only done for a short period of time, inside the laboratory, but also for a longer time period, in a natural setting. It was expected that subjects with high WBSI scores exhibit higher frequencies of unwanted thoughts than subjects with low WBSI scores. Such a result would provide further evidence for the validity of the WBSI.

**Method**

*Design.* A 2 (WBSI) × 2 (instruction) factorial design was used, with both factors being between-subjects factors. The WBSI factor refers to the two extreme ‘thought suppression’ groups: as mentioned earlier, there were 21 subjects with low WBSI scores (WBSI score < 42; corrected WBSI score < 27) and 19 subjects with high WBSI scores (WBSI score > 54; corrected WBSI score > 36). The instruction factor pertains to the experimental manipulation. In the ‘suppression’ condition, subjects were asked to suppress a personally relevant intrusion. In the ‘record only’ condition, subjects were only instructed to record the thought whenever it occurred. Thus, four groups were involved: a suppression/high WBSI group (n = 9; mean WBSI score = 62.8, SD = 5.0), a record only/high WBSI group (n = 10; mean WBSI score = 58.8, SD = 4.9), a suppression/low WBSI group (n = 11; mean WBSI score = 31.6, SD = 5.3) and a record only/low WBSI group (n = 10; mean WBSI score = 30.0, SD = 4.7).

*Procedure.* The experiment took place in two sessions. In the first session, which lasted approximately 40 min, subjects first identified an unwanted negative intrusion that they frequently experienced (i.e. more than once a month) and that elicited considerable discomfort (i.e. at least 50 on a 100-point visual analogue scale, VAS, anchored ‘no discomfort at all’ at the 0-end and ‘very much discomfort’ at the 100-end). Next, a ‘short-term’ thought suppression experiment was carried out which consisted of two 5 min periods. In the ‘suppression’ condition, subjects were instructed to suppress all thoughts about the unwanted negative intrusion during the first 5 min period: ‘In the next 5 min think about anything you like. There is one exception, try not to think about the unwanted negative intrusion that you have just identified’. In the ‘record only’ condition, subjects were instructed to suppress all thoughts about the unwanted negative intrusion during the first 5 min period: ‘In the next 5 min think about anything you like. There is one exception, try not to think about the unwanted negative intrusion that you have just identified’. In the ‘record only’ condition, subjects were just asked to record the unwanted intrusion whenever it occurred: ‘In the next 5 min, think about anything you like. You might think about the unwanted negative intrusion that have just identified, but you don’t have to’ (see Merckelbach et al., 1991). In the second 5 min period, all subjects received ‘record only’ instructions. The frequency of the unwanted negative intrusions was assessed in two ways. First of all, subjects were given an event marker and instructed to register the frequency of the unwanted negative intrusion on-line (see Merckelbach et al., 1991; Muris et al., 1992). Second, after both 5 min periods, subjects were asked to indicate on a 100 mm VAS the amount of time they had spent thinking about the target thought (0 = no time at all; 100 = all the time; see e.g. Muris, Merckelbach & de Jong, 1993).

After a short break, the ‘long-term’ thought suppression experiment began. This experiment largely followed the procedure employed by Trinder and Salkovskis (1994). Subjects were asked to think about the unwanted negative intrusion they had previously identified. They were instructed to imagine the thought as clearly as possible, and then, when they had succeeded in doing so, to report how much discomfort it elicited. This was done five times, with a minute between each time they were asked to think about the thought. At the end of this so-called habituation sequence,
Table 4. Mean scores on frequency measures of intrusive thinking for the four groups during the short-term thought suppression experiment (standard deviations are in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>High WBSI</th>
<th>Low WBSI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suppression</td>
<td>Record only</td>
</tr>
<tr>
<td><strong>Number of thoughts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period 1</td>
<td>5.1 (2.2)</td>
<td>4.2 (4.3)</td>
</tr>
<tr>
<td>Period 2</td>
<td>2.7 (2.2)</td>
<td>2.9 (2.8)</td>
</tr>
<tr>
<td><strong>Visual analogue scale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Period 1</td>
<td>32.1 (17.6)</td>
<td>37.7 (20.2)</td>
</tr>
<tr>
<td>Period 2</td>
<td>22.6 (17.9)</td>
<td>21.0 (21.2)</td>
</tr>
</tbody>
</table>

*The visual analogue scale measured the amount of time subjects had spent thinking about the target thought (0 = no time at all; 100 = all the time).

Subjects were asked to rate their thoughts for discomfort, urge to put right, urge to distract, controllability and acceptability using 100 mm VASs. Subjects were then asked to record each occurrence of the unwanted negative intrusion, over the next 3 days. They were given a small booklet, containing three pages, one for each day. Each page consisted of three boxes, labeled 'in the morning', 'in the afternoon' and 'in the evening'. Subjects were asked to put a tick in the appropriate box whenever the thought occurred. Furthermore, the booklet contained three discomfort VASs. At the end of each day, subjects were asked to rate how much discomfort the thought had elicited throughout that day. Before the 3 day period started, subjects received either 'suppression' or 'record only' instructions. In passing, it should be noted that all subjects remained in the same condition as in the short term thought suppression experiment. Suppression instructions were as follows: 'Whenever the thought comes into your mind during the next 3 days, I’d like you to suppress it, to get rid of it as quickly as possible and try to make sure that it does not return'. Record only instructions were as follows: 'It doesn’t matter if the thought comes into your mind during the next 3 days. It might or it might not, it can do either'. Subjects were given a small black ring to put on their finger as a reminder of what they had been asked to do.

When subjects had completed the booklet, they returned to the laboratory for a second experimental session (of approximately 20 min). This session began by asking subjects to indicate on a VAS how much they had tried to suppress the unwanted negative intrusion during the past 3 days (0 = 'not at all'; 100 = 'very much'). Subjects then completed the habituation sequence again, followed by ratings concerning discomfort, urge to put right, urge to distract, controllability and acceptability, exactly as in the first session. Finally, subjects were debriefed and thanked for their participation.

**Results**

**Content of intrusive thoughts and pre-experimental differences.** Most subjects (n = 27) reported 'the thought of harm to, or death of, a close friend or a family member' as their most prominent unwanted negative intrusion. Other intrusions were 'the thought of an experience many years ago when I was embarrassed, humiliated or a failure' (n = 2), 'what is the calorie content of that food?' (n = 2), 'the thought of a painful experience I once had' (n = 2), 'the thought of having sex with an unknown person' (n = 1), 'the thought that my eyes are or will be harmed' (n = 1), 'the thought of acts of violence in sex' (n = 1), 'the thought that I have or will get cancer' (n = 1), 'the thought of having an accident, usually when about to travel' (n = 1), 'the thought of intense anger to someone' (n = 1) and 'the thought that something is wrong with my health' (n = 1). Mean frequency and discomfort ratings of these intrusive thoughts were 4.1 (SD = 0.7, a score which indicates that the unwanted negative intrusions occurred, on average, more than once a month) and 89.6 (SD = 11.5), respectively.

One way ANOVAs showed that there were no a priori differences between the four groups with regard to frequency \([F(3,39) = 1.3, P = 0.27]\) and discomfort \([F(3,39) = 1.8, P = 0.16]\) of the unwanted negative intrusion.

**Short-term thought suppression.** Table 4 shows the frequencies of the unwanted negative intrusions in the four groups during the short-term thought suppression experiment. A 2 (WBSI) × 2 (instruction) × 2 (period) MANOVA with the last factor being a repeated measure, carried out on the event marker data, revealed a marginal effect of WBSI \([F(1,36) = 2.9, P = 0.08]\) and a significant interaction of WBSI with time \([F(1,36) = 5.4, P < 0.05]\).
subjects with high WBSI scores reported more thoughts about their unwanted negative intrusion than subjects with low WBSI scores, and this was especially true for period 1. Furthermore, a significant time effect emerged \[F(1,36) = 11.5, P < 0.005\]: subjects had more thoughts about the unwanted negative intrusion during period 1 than during period 2. No effects of instruction were found, indicating the absence of initial enhancement and rebound effects.

The 2 (WBSI) × 2 (instruction) × 2 (period) MANOVA on the VAS frequency data essentially revealed the same results. That is, a main effect of WBSI \[F(1,36) = 8.1, P < 0.01\] and a time effect \[F(1,36) = 11.1, P < 0.005\] emerged. No effects of instruction were found.

**Long-term thought suppression. Frequency of intrusive thoughts:** For each group, the mean frequency of unwanted negative intrusions per day was calculated. These data are shown in the upper part of Table 5. A 2 (WBSI) × 2 (instruction) × 3 (days) MANOVA revealed a main effect of time \[F(2,72) = 7.3, P < 0.001\]: in general, subjects reported a decline of intrusions over the 3 days. Furthermore, a high order interaction of WBSI, instruction and time emerged \[F(2,72) = 7.3, P < 0.05\]. The latter finding is difficult to interpret, but as can be seen in Table 5, all groups exhibited a unique pattern of thought frequency over time. Interestingly, the suppression/high WBSI group showed a pattern of intrusions that can be interpreted as a rebound effect.

**Discomfort ratings:** A 2 (WBSI) × 2 (instruction) × 3 (days) MANOVA on the discomfort ratings revealed a main effect of WBSI \[F(1,36) = 4.2, P < 0.05\]: subjects with high WBSI scores generally experienced more discomfort when the negative unwanted intrusion occurred during the 3 day period than subjects with low WBSI scores (see lower part of Table 5). Further, only a significant time effect was found \[F(2,72) = 3.2, P < 0.05\].

**Trying to suppress the negative unwanted intrusion:** Means for reports of trying not to think about the negative unwanted intrusion were 54.3 (SD = 26.7) for the suppression/high WBSI group, 41.7 (SD = 28.3) for the record only/high WBSI group, 36.1 (SD = 26.3) for the suppression/low WBSI group and 8.9 (SD = 7.3) for the record only/low WBSI group. As expected, the 2 (WBSI) × 2 (instruction) MANOVA on these data revealed a main effect of instruction \[F(1,36) = 7.0, P < 0.05\]: that is, subjects in the suppression condition reported more attempts at trying not to think about the negative unwanted intrusion than subjects in the record only condition.

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### Table 5. Mean number of thoughts about the unwanted negative intrusion and mean discomfort ratings during the long-term thought suppression experiment (standard deviations are in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>High WBSI</th>
<th></th>
<th>Low WBSI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suppression</td>
<td>Record only</td>
<td>Suppression</td>
<td>Record only</td>
</tr>
<tr>
<td><strong>Number of thoughts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day 1</td>
<td>5.7 (4.3)</td>
<td>9.8 (5.5)</td>
<td>7.5 (9.1)</td>
<td>5.3 (4.6)</td>
</tr>
<tr>
<td>Day 2</td>
<td>4.8 (3.3)</td>
<td>6.3 (3.7)</td>
<td>5.2 (4.5)</td>
<td>4.4 (3.6)</td>
</tr>
<tr>
<td>Day 3</td>
<td>6.1 (3.5)</td>
<td>6.0 (4.6)</td>
<td>3.4 (3.6)</td>
<td>3.5 (4.0)</td>
</tr>
<tr>
<td><strong>Discomfort</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day 1</td>
<td>31.1 (26.9)</td>
<td>34.3 (20.4)</td>
<td>33.6 (25.0)</td>
<td>14.8 (15.9)</td>
</tr>
<tr>
<td>Day 2</td>
<td>31.9 (23.0)</td>
<td>32.1 (21.9)</td>
<td>27.0 (24.6)</td>
<td>12.9 (16.1)</td>
</tr>
<tr>
<td>Day 3</td>
<td>33.3 (25.2)</td>
<td>29.8 (24.3)</td>
<td>19.1 (21.1)</td>
<td>7.7 (8.5)</td>
</tr>
</tbody>
</table>

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### Table 6. Mean ratings of discomfort, urge to put right, urge to distract, controllability and acceptability for the thoughts formed during the habituation sequences (standard deviations are in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>High WBSI</th>
<th></th>
<th>Low WBSI</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suppression</td>
<td>Record only</td>
<td>Suppression</td>
<td>Record only</td>
</tr>
<tr>
<td><strong>Discomfort</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence 1</td>
<td>67.4 (20.9)</td>
<td>67.8 (18.5)</td>
<td>59.7 (20.3)</td>
<td>53.0 (22.0)</td>
</tr>
<tr>
<td>Sequence 2</td>
<td>58.5 (18.1)</td>
<td>64.8 (22.1)</td>
<td>49.8 (26.0)</td>
<td>44.1 (25.1)</td>
</tr>
<tr>
<td><strong>Urge to put right</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence 1</td>
<td>54.3 (21.0)</td>
<td>59.5 (21.4)</td>
<td>38.5 (21.3)</td>
<td>41.8 (26.0)</td>
</tr>
<tr>
<td>Sequence 2</td>
<td>52.7 (27.1)</td>
<td>48.8 (26.1)</td>
<td>39.5 (20.7)</td>
<td>23.8 (14.4)</td>
</tr>
<tr>
<td><strong>Urge to distract</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence 1</td>
<td>56.8 (20.3)</td>
<td>61.7 (23.6)</td>
<td>52.6 (27.8)</td>
<td>47.1 (20.8)</td>
</tr>
<tr>
<td>Sequence 2</td>
<td>53.4 (25.6)</td>
<td>52.7 (25.4)</td>
<td>46.0 (20.2)</td>
<td>18.5 (18.0)</td>
</tr>
<tr>
<td><strong>Controllability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence 1</td>
<td>51.6 (28.0)</td>
<td>55.7 (23.4)</td>
<td>65.3 (24.0)</td>
<td>63.7 (19.0)</td>
</tr>
<tr>
<td>Sequence 2</td>
<td>53.7 (26.3)</td>
<td>62.7 (25.6)</td>
<td>70.1 (17.8)</td>
<td>70.5 (18.5)</td>
</tr>
<tr>
<td><strong>Acceptability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequence 1</td>
<td>39.1 (25.5)</td>
<td>45.4 (17.1)</td>
<td>48.1 (29.9)</td>
<td>59.1 (26.8)</td>
</tr>
<tr>
<td>Sequence 2</td>
<td>39.8 (26.9)</td>
<td>42.1 (18.6)</td>
<td>44.2 (24.4)</td>
<td>67.3 (24.4)</td>
</tr>
</tbody>
</table>
Furthermore, a main effect of WBSI emerged \( F(1,36) = 11.5, P < 0.005 \): subjects with high WBSI scores tried more to suppress the intrusion than subjects with low WBSI scores, irrespective of the instruction they had received. The interaction of WBSI and instruction was not significant.

**Habituation sequences:** In order to investigate the influence of individual differences in thought suppression on the ratings following the habituation sequences, and to examine whether these ratings were affected by the experimental instructions, a series of \( 2 \times 2 \times 2 \) MANOVAs was carried out. These analyses revealed (marginally) significant main effects of WBSI on discomfort \( F(1,36) = 4.3, P < 0.05 \), urge to put right \( F(1,36) = 8.0, P < 0.01 \), urge to distract \( F(1,36) = 5.5, P < 0.05 \), controllability \( F(1,36) = 3.7, P = 0.06 \) and acceptability \( F(1,36) = 3.6, P = 0.07 \). As is shown in Table 6, subjects with high WBSI scores reported that the thoughts elicited more discomfort, that they had a greater urge to distract and to put thoughts right, and that they found thoughts less controllable and less acceptable than subjects with low WBSI scores. The MANOVA on the ‘urge to distract’ data also revealed (marginally) significant interactions of WBSI with time \( F(1,36)= 2.9, P = 0.09 \) and instruction with time \( F(1,36) = 4.2, P < 0.05 \). As can be seen in Table 6, this result was predominantly due to the record only/low WBSI group who reported low scores on ‘urge to distract’ in particular following the second habituation sequence. Besides significant time effects on discomfort \( F(1,36) = 6.3, P < 0.05 \), urge to put right \( F(1,36) = 5.0, P < 0.05 \) and urge to distract, no further results attained significance.

**Discussion**

The results of Part 2 of Study 2 can be summarized as follows. First of all, no evidence was found for the presence of counterproductive effects of instructed thought suppression. That is, neither in the short-term laboratory experiment nor in the long-term, naturalistic setting, suppression instructions were associated with heightened levels of intrusive thinking about the unwanted negative thought item. As mentioned in the Introduction, there have been a number of investigations which failed to document rebound and/or initial enhancement effects. To account for these negative results, a number of possible explanations have been put forward. For example, Salkovskis and Campbell (1994) proposed that the methods of assessing thought frequency (‘streaming’ in which subjects are asked to verbalise everything they are thinking, versus ‘recording’ in which subjects make a key press whenever the target thought occurs) may be responsible for the differential findings in thought suppression studies. However, a recent study of Muris et al. (1993) indicates that frequencies of intrusions are not dependent on different assessment methods. Another explanation refers to the type of thoughts that have been selected for thought suppression experiments (e.g. Trinder & Salkovskis, 1994). That is, some studies may have failed to document the paradoxical effects of thought suppression because they investigated the suppression of neutral, personally-irrelevant thought items. Yet, recent research of Rutledge et al. (1993) and Kelly and Kahn (1994) do not support this line of reasoning in that these researchers found no rebound effects in subjects who suppressed personally-relevant intrusive thoughts.

Second, subjects with high WBSI scores exhibited a greater frequency of intrusive thinking during the short-term thought suppression experiment than subjects with low WBSI scores. The results of the long-term experiment were less clear: although the suppression/high WBSI group showed some evidence of a rebound-like pattern of intrusions over the 3 day period, no main effect of WBSI on the frequency of intrusions emerged. On the other hand, subjects with high WBSI scores reported more discomfort and a greater tendency at suppression whenever the unwanted negative intrusion occurred. Finally, when instructed to imagine the unwanted negative intrusion (during the habituation sequences), subjects with high WBSI scores experienced more discomfort and had a greater urge to control their thoughts than subjects with low WBSI scores. Altogether, these results provide further evidence for the validity of the WBSI.

Unexpectedly, subjects with high WBSI scores did not exhibit a heightened frequency of unwanted negative intrusions in the long-term thought suppression experiment. Whereas such a naturalistic experiment possibly mimics better what happens during thought suppression attempts in daily life, it is also clear that this experimental set-up is more sensitive to confounding factors. For example, a few subjects reported that they had not worn the ring (which cued them of the
instructions they had received) during the whole 3 day period. This might have affected the frequency of thinking about the unwanted negative intrusion.

It is tempting to propose that individual differences in thought suppression (as indexed by the WBSI) moderate the frequency of target thoughts in thought suppression experiments. Although the present study did not find clear-cut interaction effects of WBSI and instruction, individual differences in thought suppression might be of influence. That is to say, the current data suggest that subjects with high WBSI scores reported a higher level of intrusive thinking than subjects with low WBSI scores. Thus, assigning subjects to experimental conditions (e.g. ‘suppression’ or ‘mention only’) without paying attention to WBSI scores, may affect the outcome of thought suppression studies.

CONCLUSION

In conclusion, the present studies show that the WBSI is a reliable self-report instrument. Furthermore, evidence for the validity of the WBSI was found. That is, WBSI scores were related in a theoretically meaningful way to measures of obsession-compulsion, depression, anxiety and intrusive thinking. Finally, evidence was found for the WBSI to be positively related to frequencies of intrusive thinking in thought suppression experiments.

Measurement and understanding of chronic tendency to suppress thoughts, may be important for our understanding of disorders in which intrusive thoughts play a role. Yet, as noted earlier (in the discussion of Study 1), the results of the current studies should be interpreted with caution. That is, at present, it is not clear whether thought suppression causes clinical levels of intrusive thinking as seen in depression, obsession-compulsion and anxiety, or whether thought suppression is the result of such problems. More definitive work has to be done to establish the time course of these phenomena.

REFERENCES