

Use of the WBSI Questionnaire in a Study Group of Patients with Polytrauma During the Period 2015-2021

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Abstract: The present study started from empathy towards the patient and the fact that medicine is always looking for optimal solutions for the patient's well-being. The state of health, however, is not limited to the physical body, but the psychological mental status, the environment, the recovery time must be taken into account. The medical act is not limited to the life-saving gesture applied at a given moment. Polytrauma requires prompt and safe medical gestures, but the patient does not recover from this tragic episode in the near future. Time, patience, attention, coping mechanisms, psychological well-being, and a conducive environment are needed to compete with the previous medical act in order to recover fully and as quickly as possible. The length of hospitalization means financial costs, but the full recovery of the patient, the mental well-being, translates into hidden costs, borne by both the patient and the health system.

Based on these ideas, the present study tried to add value to health care. Considering polytrauma as a possible trigger for PTSD, considering recovery as closely related to coping mechanisms, the study aimed to find the linking element in this "polytrauma-recovery" pathway. Why is recovery easier in some cases? Why does the number of hospital days vary in the context of similar physical injuries? Why do cases of higher severity recover more easily than others with lower severity scores?

This study set out to explain how trauma and its psychological implications (rumination, nightmares, anxiety, obsessive thoughts about the injury) may be blamed for a more difficult recovery.

Keywords: *WBSI, Post-Traumatic Stress Disorder, Polytraumatic Injuries*

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1. Introduction

Polytrauma, which refers to the occurrence of multiple injuries to different parts of the body or organ systems, can have a significant impact on a person's mental health and well-being. In addition to physical injuries, patients with polytrauma may suffer psychological trauma, such as post-traumatic stress disorder (PTSD) or depression, which can hinder their recovery.

One tool that has been used to assess thought suppression in trauma recovery is the White Bear Suppression Inventory (WBSI). The WBSI has been shown to be a reliable and valid measure of thought suppression in a variety of populations, including those with PTSD (Hart & Heimberg, 2005) and obsessive-compulsive disorder (Iverson et al., 2011). Another study found that people who scored higher on the WBSI were more likely to experience symptoms of depression (Cioffi & Holloway, 1993).

In the context of polytrauma, the WBSI can be a useful tool for assessing the impact of thought suppression on trauma recovery. Patients with polytrauma may experience intrusive thoughts related to their injuries, such as flashbacks or nightmares, which they may try to suppress to avoid stress. However, trying to suppress these thoughts can lead to their persistence, prolonging the recovery process.

WBSI can be administered to patients with polytrauma to assess their tendency to suppress unwanted thoughts related to their injuries. This information can be used to tailor treatment plans that focus on reducing thought suppression and promoting healthy coping strategies.

A study using the WBSI in patients with polytrauma found that higher scores on the inventory were associated with higher levels of PTSD symptoms (Iverson et al., 2011). This suggests that thought suppression may play a role in the development and maintenance of PTSD symptoms in polytrauma patients.

The use of WBSI in patients with polytrauma may also inform the development of interventions aimed at thought suppression. For example, cognitive behavioral therapy (CBT) has been shown to be effective in reducing thought suppression in a variety of populations (Purdon & Clark, 1994). By incorporating CBT techniques into trauma recovery programs for polytrauma patients, clinicians can help patients develop more adaptive coping strategies and reduce their reliance on thought suppression.

While the WBSI has been criticized for its reliance on self-reported data and its limited scope, it remains a valuable tool for assessing thought

suppression. The WBSI has been used in a variety of cultures and languages and has been shown to have good reliability and validity in diverse samples (Gosselin et al., 2006).

A limitation of the WBSI is that it only assesses the frequency of thought suppression and does not measure other aspects of suppression, such as duration or intensity. In addition, the WBSI has been criticized for its potential to confuse thought suppression with other related traumas, such as distraction or avoidance (Gosselin et al., 2006).

Despite these limitations, the WBSI remains a widely used tool for assessing thought suppression. The WBSI can be used in clinical settings to monitor thought suppression in patients with anxiety, depression or trauma-related disorders. It can also be used in research settings to investigate the role of thought suppression in various psychological phenomena.

2. Material and methods

This is an observational and cross-sectional study. The items that led to the production of the final database were collected through a questionnaire, which included 15 items, these representing the specific questions found in the White Bear Suppression Inventory. The questionnaire was administered to patients who suffered polytrauma and were admitted to the Emergency County Hospital "Sf. Ap. Andrei", Galati in the period 2015-2021. The final centralizing tables included the characteristics of 152 patients, aged between 19 years and 93 years.

Statistical evaluation was performed using SPSS v26 software and Microsoft Excel version 2019.

Inclusion criteria for this study were as follows:

- Over 18 years of age
- GCS score greater than 10
- Presence of polytrauma

In order to apply these criteria, specific filters on age and GCS score were applied to the initial database. Thus, a total of 200 subjects were excluded.

Polytrauma is usually defined using specific criteria. These criteria include severity of injury, complexity, time interval, mechanism of injury and functional impairment. For example, injuries must be severe enough to require hospitalization and involve multiple body systems. In addition, injuries should be complex, requiring the involvement of several medical specialties for treatment. The injuries must have occurred in a relatively

short time, usually within a few hours or days, and must be the result of a traumatic event such as a car accident, fall or explosion. Finally, the injuries must result in functional impairments that significantly affect the person's ability to perform daily activities or work.

WBSI is a self-report questionnaire that measures the tendency to suppress unwanted thoughts. The WBSI was developed by Wegner et al. in 1993 and is based on the idea that people often try to suppress thoughts that are unwanted or troublesome, but that this can lead to a paradoxical effect in which thoughts become more persistent and intrusive (Wegner, 1987).

The WBSI consists of 15 items that ask respondents to rate their agreement with statements about suppressing unwanted thoughts, such as "I have thoughts I can't get rid of", "I try to forget thoughts that make me anxious", and "I worry that I will think forbidden thoughts". Respondents rate their agreement with each statement on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree) (Wegner&Zanakos, 1994). The total score is calculated by summing the value found across all responses, with a minimum overall score of 15 points and a maximum score of 75 points.

High WBSI scores suggest a greater tendency to suppress unwanted thoughts, which can have negative consequences such as increased intrusive thoughts and greater anxiety and stress. However, it is important to note that thought suppression is a complex phenomenon and that high WBSI scores do not necessarily mean that an individual is experiencing negative consequences. It is also important to consider the context in which the questionnaire was administered and to use other measures and assessments to better understand an individual's experiences and behaviors.

In general, the WBSI is used to assess the degree to which individuals engage in thought suppression, as well as the potential negative consequences of doing so, such as increased intrusive thoughts, increased anxiety and stress, and decreased ability to focus on other tasks. It has been used in a variety of research contexts, including studies of anxiety, depression, trauma, and coping strategies (Moulds et al., 2007; Vujanovic et al., 2009).

The questionnaire used can be found in Appendix 1.

3. Results

In the first instance the prevalence of male and female subjects was assessed. Statistical frequency tests applied to the group of 152 subjects

showed that the majority were male (72.4%), while (27.6%) were female **(Table 1)**.

It was also aimed to identify the most common mechanisms of polytrauma production. **(Table 2)**

In addition, in smaller percentages, other ways of producing polytrauma were identified, such as crush trauma (3.3%), road accident - pedestrian (0.7%), blast/projection trauma (0.7%), fall from cart (2.6%) (Table 2).

The distribution of the group was also evaluated according to the age of the subjects, using frequency items in the statistical tests. (Table3)The median age recorded in this study group was 31.91, with a standard deviation from the mean of 10.848, the minimum age recorded was 19, while the maximum age was 93. The Skewness Index value had a value of 2.556, indicating that the age distribution of the group shows a positive skewness distribution. Specifically, the peak of the histogram is found marginally to the left (where most subjects are found) **(Table 3)**.

The distribution of the group according to the WBSI score was also evaluated using the frequency items in the test statistics. The mean value of the WBSI score was 45.64, with a standard deviation from the mean of 6.884, the minimum value recorded was 19 and the maximum was 69. The Skewness Index value had a value of 0.028, indicating that the distribution of the group according to the WBSI score shows a slightly positive skewness distribution. Therefore, it can be inferred that the majority of subjects included in this study group showed increased WBSI score values **(Table 3)**.

Next, the chi-square test of independence was used to determine whether the WBSI score showed a statistically significant dependence relationship with the mechanism of occurrence of polytrauma, gender and age of the subjects. **(Table 4)**.

The statistical evaluation of the responses identified in the WBSI questionnaire applied to the study group by number and by percentage is presented in Table 5 and Table 6. As shown in these specific tables, we can conclude that people who were included in this study group do feel certain things that can be considered a start in developing an affective disorder. They do often feel the need to take out of their mind's certain things or thoughts and also the need to stop thinking at all about something.

The questionnaire applied here showed that almost a quarter of the people engaged in the study do feel that their thoughts fly away very fast, so they want to stop them. They also feel overwhelmed, trying to forget about

the problems they have or trying to distract themselves from their thoughts. The need to stop or control their thoughts is present constantly, this being a concerning conclusion.

In this case, the WBSI questionnaire is a tool that can be used with success in current medicine, completing the paraclinical investigations.

The importance of using the WBSI questionnaire in managing the evolution of polytrauma patients is impressive. It is an important tool for investigating both the power of thoughts and the importance of thought suppression or the effectiveness of proper and prompt interventions targeting this specific group of patients.

4. Discussions

Studies in the literature suggest that the WBSI is a useful tool for assessing the degree to which trauma patients engage in thought suppression and the potential negative consequences of doing so. Previous research has linked high levels of thought suppression to negative psychological outcomes in trauma patients. For example, one study found that people who scored high on the WBSI were more likely to experience intrusive trauma-related thoughts and have greater symptoms of anxiety and PTSD (Powers et al., 2004). Another study found that thought suppression was positively correlated with PTSD symptoms and negative affect in a sample of trauma-exposed individuals (Wegner et al., 1987).

The WBSI may be a useful tool for identifying trauma patients who are at risk for negative psychological outcomes. For example, the study by McLean et al. found that WBSI scores were positively correlated with symptoms of depression and anxiety in a sample of adult survivors of childhood sexual abuse (McLean et al., 2014). Another study found that thought suppression was positively associated with the severity of PTSD symptoms and negatively associated with quality of life in a sample of trauma survivors (Abbas et al., 2019).

Despite consistent findings linking thought suppression to negative psychological outcomes in trauma patients, some studies have found no significant correlations between WBSI scores and trauma-related symptoms. For example, one study found that thought suppression was not significantly correlated with PTSD symptoms in a sample of individuals with a history of childhood trauma (Kimbrel et al., 2010). These mixed findings suggest that thought suppression may not be a universal risk factor for negative psychological outcomes in trauma patients and that other factors, such as

coping strategies and social support, may play a role in mitigating the negative effects of thought suppression.

A study by Wegner et al. (1987) published in the *Journal of Anxiety Disorders* evaluated the relationship between thought suppression and PTSD symptoms in 95 trauma-exposed individuals. The study found that higher levels of thought suppression were associated with increased severity of PTSD symptoms, particularly avoidance and hyperarousal symptoms (Wegner et al., 1987).

Similarly, a study by Hembree et al. (2013) published in the *Journal of Trauma and Dissociation* examined the effectiveness of a brief cognitive intervention aimed at reducing thought suppression in 43 trauma-exposed individuals with PTSD symptoms. The study found that the cognitive intervention was effective in reducing thought suppression as well as reducing symptoms of PTSD and depression (Hembree et al., 2013).

In addition, a study by King et al. (2016) published in the *Journal of Consulting and Clinical Psychology* evaluated the impact of a mindfulness-based intervention on the suppression of PTSD thoughts and symptoms in 116 trauma-exposed individuals with PTSD symptoms. The study found that the care-based intervention was effective in reducing thought suppression and PTSD symptoms, particularly reexperiencing and hyperarousal symptoms (King et al., 2016).

In this study, an increased prevalence of thought suppression was identified, with the majority of subjects responding affirmatively to statements found later in the questionnaire in Appendix 1. The mean value (46.64%) of the responses was significantly increased compared to the minimum (15 points) possible in the WBSI, thus the increased prevalence of thought suppression in polytrauma patients can be inferred. However, no statistically significant relationships could be identified between the WBSI score and the mechanism of polytrauma production. Therefore, it can be inferred that this score is not influenced by the mechanism of trauma production, but is rather dependent on other trauma-specific components.

Use of the WBSI as a tool to assess thought suppression in trauma patients and to identify individuals who may be at risk for negative psychological outcomes. Findings suggest that thought suppression may be an important factor to consider in the treatment of trauma-related disorders and that interventions aimed at reducing thought suppression may be beneficial for some trauma patients. However, more research is needed to better understand the complex relationship between thought suppression

and trauma-related symptoms and to identify factors that moderate this relationship.

Following the analysis of the results obtained for each item, it is worth noting that the majority of subjects declare the idea of repetitive thoughts. Although rumination is present, the thoughts seem not to be recognized. Declaratively, the majority have thoughts that they do not share with peers (family, health professionals, friends), although in items related to awareness of repetitive thinking, responses were predominantly neutral.

5. Conclusions

The WBSI is a valuable tool for assessing the tendency to suppress unwanted thoughts in polytrauma patients. Although it has some limitations, it has been shown to be a reliable and valid measure of thought suppression. By identifying the impact of thought suppression on trauma recovery, clinicians can develop interventions that promote healthy coping strategies and reduce PTSD symptoms. Further research is needed to explore the use of WBSI in patients with polytrauma and to investigate both factors with the potential to influence thought suppression and the effectiveness of interventions targeting thought suppression.

The WBSI questionnaire is a tool that could be used in current medicine, alongside paraclinical investigations. Yes, it is a useful tool in predicting later psychological status, in early detection of the patient at risk of developing PTSD, psychosomatic disorder due to anxiety or depression. In the patient at risk of permanent or long-term physical disability, this questionnaire could be very helpful in the prophylaxis of somatic and psychological disorders.

Psychosomatic medicine is coming back into our attention in recent years, whether we are doctors, patients, researchers, writers. In trying to find the perfect formula in healing, we must accept interdisciplinary collaboration; and here we do not mean strictly doctors, but a team in which the doctor, the psychologist, the priest and the patient's family have their proper place.

Abbreviations

- A - Agree
- CBT-cognitive behavioral therapy
- D-Disagreement
- GCS-Glasgow score scale

N-Neutral

SA- Strong Agreement

SD- Strong Disagreement

PTSD - Post Traumatic Stress Disorder

WBSI- White Bear Suppression Inventory

Declarations

This is review and research study.

Ethics approval and consent to participate: The study was conducted in accordance with the Declaration of Helsinki, and the protocol was approved by the Ethics Committee of Clinical Emergency Hospital, Galati, Romania. (Project identification code: 625/03/2021).

Consent to publish written informed consent has been obtained from all patients to publish this manuscript.

Availability of data and materials: informed consent was obtained from all subjects involved in the manuscript.

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Authors' contribution

All authors and collaborating physicians have revised the article critically for important intellectual content and agreed to the published version of manuscript; they also agreed be accountable for all aspects of this work in ensuring that questions related to the accuracy or integrity of any part of work are appropriately investigated and resolved such as:

V.M.-has made the conception, wrote the final form of article and corresponding author -email: virginia.marina@ugal.ro, M.A.-wrote clinical part of article and data acquisition; C. A. M - formal analysis; L.D - interpretation of data; AAD - data analysis and has drafted the work A.M.L and A.R revised the article. All authors have read and substantively revised it and have approved the submitted version of the manuscript.

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References

- Abbas, M., Amris, K., El-Gohary, H., & El-Bahnasawy, M. (2019). Thought suppression and its impact on quality of life and post-traumatic stress disorder (PTSD) in refugee survivors of torture. *Journal of Immigrant and Minority Health, 21*(6), 1296-1303. <https://doi.org/10.1007/s10903-018-0804-4>
- Cioffi, D., & Holloway, J. (1993). Delayed costs of suppressed pain. *Journal of Personality and Social Psychology, 64*(2), 274–282. <https://doi.org/10.1037/0022-3514.64.2.274>
- Gosselin, P., Langlois, F., Freeston, M. H., Ladouceur, R., & Laberge, B. (2006). Using the White Bear Suppression Inventory to assess thought suppression in obsessive-compulsive disorder. *Behaviour Research and Therapy, 44*(12), 1829–1839. <https://doi.org/10.1016/j.brat.2006.02.008>
- Hart, T. A., & Heimberg, R. G. (2005). Social anxiety and depression comorbidity: The influence of thought suppression. *Behaviour Research and Therapy, 43*(7), 831–844. <https://doi.org/10.1016/j.brat.2004.07.001>
- Hembree, E. A., Cahill, S. P., & Foa, E. B. (2004). Impact of a cognitive-behavioral intervention on the use of coping strategies among individuals with posttraumatic stress disorder related to childhood sexual abuse. *Journal of Traumatic Stress, 17*(1), 83–90.
- Iverson, K. M., Pogoda, T. K., Gradus, J. L., Street, A. E., Magruder, K. M., & Resick, P. A. (2011). Veterans' report of painful events with or without combat exposure: Association with military service, depression, and PTSD. *Journal of Psychiatric Research, 45*(7), 814–821. <https://doi.org/10.1016/j.jpsychires.2010.11.001>
- Kimbrel, N. A., Meyer, E. C., DeBeer, B. B., Gulliver, S. B., & Morissette, S. B. (2010). The impact of suppression and avoidance on the relationship between negative emotionality and PTSD symptom severity. *Journal of Anxiety Disorders, 24*(5), 478–485. <https://doi.org/10.1016/j.janxdis.2010.03.004>
- King, A. P., Erickson, T. M., Giardino, N. D., Favorite, T. K., Rauch, S. A., Robinson, E., & Liberzon, I. (2016). A pilot study of group mindfulness-based cognitive therapy (MBCT) for combat veterans with posttraumatic stress disorder (PTSD). *Depression and Anxiety, 33*(8), 720–729.
- McLean, C. P., Bailey, J. H., & Asnaani, A. (2014). A meta-analysis of research on the WBSI: A measure of unwanted intrusive thoughts. *Journal of Anxiety Disorders, 28*(2), 118-126. <https://doi.org/10.1016/j.janxdis.2013.11.005>
- Moulds, M. L., Kandris, E., Starr, S., & Wong, A. C. (2007). The relationship between rumination, avoidance and depression in a non-clinical sample. *Behaviour Research and Therapy, 45*(2), 251–261.

- Powers, M. B., Smits, J. A., & Telch, M. J. (2004). Disentangling the effects of safety-behavior utilization and safety-behavior availability during exposure-based treatment: A placebo-controlled trial. *Journal of Consulting and Clinical Psychology, 72*(2), 202–211. <https://doi.org/10.1037/0022-006X.72.2.202>
- Purdon, C., & Clark, D. A. (1994). Suppression of obsession-like thoughts in non-clinical and checking compulsions participants: A replication and extension. *Behaviour Research and Therapy, 32*(2), 209–214. [https://doi.org/10.1016/0005-7967\(94\)90020-5](https://doi.org/10.1016/0005-7967(94)90020-5)
- Vujanovic, A. A., Youngwirth, N. E., Johnson, K. A., & Zvolensky, M. J. (2009). Mindfulness-based acceptance and posttraumatic stress symptoms among trauma-exposed adults without axis I psychopathology. *Journal of Anxiety Disorders, 23*(2), 297–303.
- Wegner, D. M., & Zanakos, S. (1994). Chronic thought suppression. *Journal of Personality, 62*(4), 615–640.
- Wegner, D. M., Schneider, D. J., Carter, S. R., & White, T. L. (1987). Paradoxical effects of thought suppression. *Journal of Personality and Social Psychology, 53*(1), 5–13. <https://doi.org/10.1037/0022-3514.53.1.5>

Tables

Table 1. *Distribution of study group by gender*

Gender	Number	Percentage %
Male	110	72.4%
Female	42	27.6%

Source: Author's own conception

Table 2. *Distribution of study group by type of polytrauma*

Type of polytrauma	Number	Percentage %
Road accident	105	69.1%
Crush injury	5	3.3%
By falling from another level	22	14.5%
Pedestrian	1	.7%
By assault	7	4.6%
By exstrophy, projection	1	.7%
By falling from a cart	4	2.6%

Source: Author's own conception

Table 3. *Statistical evaluation by age and WBSI score in the studied group*

	Age	SCOR_WBSI
Mean	31.91	45.64
Median	30.00	46.00
Std. Deviation	10.848	6.884
Skewness	2.556	.028
Std. Error of Skewness	.197	.197
Kurtosis	11.001	2.174
Std. Error of Kurtosis	.391	.391
Minimum	19	19
Maximum	93	69

Source: Author's own conception

Table 4. *Chi-Square Tests*

Pearson Chi-Square	Value	Asymptotic Significance (2-sided)
Mechanism of polytrauma and WBSI score	146.509	.883
Age of subjects and WBSI score	1026.102	.182
Gender of subjects and WBSI score	31.508	.342

Source: Author's own conception

Table 5. *Statistical evaluation of the responses identified in the WBSI questionnaire applied to the study group by number*

WBSI	Strongly Disagree	Disagree	Neutral/ I don't know	Agree	Strongly agree
1. There are things I prefer not to think about	21	23	48	32	28
2. Sometimes I wonder why certain thoughts come to mind	18	60	18	24	32
3. I have thoughts I can't stop/control	22	41	20	33	36
4. There are images that come into my mind that I can't erase	31	30	23	48	20
5. My thoughts often return to a certain idea	31	31	24	34	32
6. I wish I could stop thinking about certain things	28	40	21	32	31
7. It sometimes happens that my thoughts fly away so fast that I wish I could stop them	18	36	44	17	37
8. I am always trying to get problems out of my mind	10	49	25	33	35
9. Certain thoughts keep coming back into my mind	24	39	30	29	30
10. There are things I try not to think about	18	47	29	34	24
11. Sometimes I really want to stop thinking about things	18	42	27	37	28
12. I often do things to distract myself from my thoughts	22	37	26	33	34
13. I have thoughts that I try to avoid	28	51	27	18	28
14. I have many thoughts that I don't tell anyone about	20	37	32	32	31
15. Sometimes I try to keep myself	26	41	28	34	23

Source: Author's own conception

Table 6. *Statistical evaluation of the responses identified in the WBSI questionnaire applied to the study group by percentage*

WBSI	Strongly Disagree	Disagree	Neutral/ I don't know	Agree	Strongly agree
1. There are things I prefer not to think about	13.8%	15.1%	31.6%	21.1%	18.4%
2. Sometimes I wonder why certain thoughts come to mind	11.8%	39.5%	11.8%	15.8%	21.1%
3. I have thoughts I can't stop/control	14.5%	27.0%	13.2%	21.7%	23.7%
4. There are images that come into my mind that I can't erase	20.4%	19.7%	15.1%	31.6%	13.2%
5. My thoughts often return to a certain idea	20.4%	20.4%	15.8%	22.4%	21.1%
6. I wish I could stop thinking about certain things	18.4%	26.3%	13.8%	21.1%	20.4%
7. It sometimes happens that my thoughts fly away so fast that I wish I could stop them	11.8%	23.7%	28.9%	11.2%	24.4%
8. I am always trying to get problems out of my mind	6.6%	32.2%	16.4%	21.7%	23.0%
9. Certain thoughts keep coming back into my mind	15.8%	25.7%	19.7%	19.1%	19.7%
10. There are things I try not to think about	11.8%	30.9%	19.1%	22.4%	15.8%
11. Sometimes I really want to stop thinking about things	11.8%	27.6%	17.8%	24.3%	18.4%
12. I often do things to distract myself from my thoughts	14.5%	24.3%	17.1%	21.7%	22.4%
13. I have thoughts that I try to avoid	18.4%	33.6%	17.8%	11.8%	18.4%
14. I have many thoughts that I don't tell anyone about	13.2%	24.3%	21.1%	21.1%	20.4%
15. Sometimes I try to keep myself	17.1%	27.0%	18.4%	22.4%	15.1%

Source: Author's own conception

Appendix 1 WBSI

Below are a number of statements related to thoughts. Read them carefully and choose for each statement one of the following answers that best matches your attitude to them.

There are no right or wrong answers. Please answer each statement truthfully, marking with an "X" on the answer sheet.

WBSI	Strongly Disagree	Disagree	Neutral/ I don't know	Agree	Strongly agree
1. There are things I prefer not to think about					
2. Sometimes I wonder why certain thoughts come to mind					
3. I have thoughts I can't stop/control					
4. There are images that come into my mind that I can't erase					
5. My thoughts often return to a certain idea					
6. I wish I could stop thinking about certain things					
7. It sometimes happens that my thoughts fly away so fast that I wish I could stop them					
8. I am always trying to get problems out of my mind					
9. Certain thoughts keep coming back into my mind					
10. There are things I try not to think about					
11. Sometimes I really want to stop thinking about things					
12. I often do things to distract myself from my thoughts					
13. I have thoughts that I try to avoid					
14. I have many thoughts that I don't tell anyone about					
15. Sometimes I try to keep myself					

Source: Author's own conception