

Opinions on the Effectiveness and Availability of Coping Strategies for Traumatic Memory Recall among Japanese Undergraduates¹⁾

Kaori OSAWA*

This study investigated the opinions of Japanese undergraduates on the effectiveness and availability of coping strategies for traumatic memory recall. A total of 344 undergraduates assessed the degree of effectiveness of coping strategies for recall and the frequency with which they would select them if they suffered from recall. The results revealed that undergraduates viewed “seeking social support” as the most effective and available coping strategy. However, some studies have shown that the use of coping strategies such as “seeking social support” is not related to the intensity of traumatic stress responses. In addition, this study indicated that undergraduates who have traumatic events that may meet the posttraumatic stress disorder criteria in the DSM-5 tended to consider “distancing from thoughts and emotions”, which may in fact worsen traumatic stress, as more effective for coping with traumatic memory than those who have no traumatic events. These results suggest that the gaps between the recognition of undergraduates and research results may provide important information in order to consider the contents of effective preventive psychoeducation of traumatic stress.

key words: traumatic memory, recall, coping strategies, traumatic stress

Introduction

Many people exhibit numerous traumatic stress responses such as drug or alcohol dependency, anxiety, or depression following on the experience of traumatic events such as natural disasters, violent incidents, or accidents. Posttraumatic stress disorder (PTSD) is a classic representative traumatic stress response. According to the diagnostic criteria of the DSM-5 (American Psychiatric Association, 2013), PTSD can be triggered by exposure to events such as the experience of actual or threatened death, serious illness or injury, or sexual violation (trauma corresponding to the diagnostic criterion A for PTSD). The disorder is characterized by the following four symptom clusters, observed as persisting for more than one month: re-experiencing/intrusions, avoidant symptoms, hyperarousal symptoms, and negative alternations in cognition and moods associated with the traumatic event.

A study targeting Japanese residents reported that 2–8% of people who have experienced trauma pres-

ent with the symptoms of PTSD and the percentage of people who suffer from it throughout their lives is 1.3% (Kawakami, 2010). Although this percentage is certainly not high, some studies have suggested that social and economic losses incurred by the onset of PTSD are considerable (e.g., Chan, Air, & McFarlane, 2003). In addition, the trauma-related problems also include mental disorders other than PTSD, such as major depressive disorder (MDD) or anxiety disorder. Particularly, many researches have shown the high prevalence of PTSD and MDD comorbidity—about 50% of PTSD patients are also diagnosed with MDD (e.g., Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). It is widely known that depression can increase the risk of possible suicide (e.g., Bostwick & Pankratz, 2000), and Ikin, Creamer, Sim, & McKensie (2010) indicated that the condition of having PTSD and MDD is associated with increased functional disabilities and greater symptom severity, along with decreased life satisfaction compared with either condition alone. Therefore, the risk of psychosocial problems (including PTSD) appearing be-

¹⁾ This work was supported by JSPS KAKENHI Grant Number 23730678, and a grant-in-aid of The Fukuhara Fund for Applied Psychoeducation Research, Tokyo, Japan.

* Department of Human Sciences, Faculty of Letters, Konan University, 8–9–1 Okamoto, Higashinada-ku, Kobe, Hyogo 658–8501, Japan

E-mail: caosawa@center.konan-u.ac.jp

cause of trauma is not something that can be ignored. The incidence of PTSD (Kawakami, 2010) suggests that not everyone who experiences serious trauma develops PTSD, and there is a high possibility of preventing trauma-related problems. Accordingly, it is important to actively discuss how to prevent the appearance of trauma-related problems; however, hardly any efforts are being made to achieve this goal.

Moreover, it has been reported that even though appropriate treatment offers real hope for recovery from trauma-related disorders, many people in Western countries who have experienced trauma do not receive mental health services (Wang, Lane, Olfson, Pincus, Wells, & Kessler, 2005), and treatment programs have a high dropout rate (Ehlers, Clark, Hackmann, McManus, & Fennell, 2005). It has also been noted that in Japan traumatic stress responses are prone to becoming chronic conditions. To resolve these problems, it is considered useful to transcend the framework of the mental health service facilities and provide intervention that prevents the exacerbation and prolongation of traumatic stress responses. Providing psychoeducation that teaches coping methods and correct knowledge about trauma may also be useful. Although empirical research about the effectiveness of psychoeducation is scant, Wessely, Bryant, Greenberg, Earnshaw, Sharpley, & Hughes (2008) argued that psychoeducation could be effective in the prevention of traumatic stress based on previous studies.

Schools have been known to be an optimal setting to conduct group psychoeducation intended to prevent traumatic stress. Therefore, it stands to reason that psychoeducation targeting undergraduates could be helpful for preventing trauma-related problems from occurring and becoming chronic. Moreover, it is considered important to provide opportunities to learn coping strategies that are effective for reducing traumatic stress responses and prevent trauma-related problems. Although studies have been conducted on coping strategies as a factor in the maintenance or exacerbation of traumatic stress responses (e.g., Read, Griffin, Wardell, & Ouilmette, 2014), almost all of these studies are unclear or vague about what the target of the coping strategy is (e.g., "stress"). Thus, there is inadequate information for this work to be put into practical use in psychoeducation or preventive intervention.

Meanwhile, it has been reported that the majority of people who have experienced trauma, regardless of whether they are affected by PTSD, experience traumatic memory recall (Michael, Ehlers, Halligan, & Clark, 2005), and that the pain caused by this type of memory recall may be a factor causing the maintenance or exacerbation of traumatic stress responses (Ehlers & Steil, 1995; Michael et al., 2005). There are many opportunities for traumatic memories to be touched upon in treatments that are effective for PTSD. The pain that accompanies the recall of these memories may potentially increase the dropout rate from treatment. In response to these findings, Osawa & Sakano (2007) examined the relationship between traumatic stress responses and coping strategies for traumatic recall among undergraduates. They revealed that the coping strategies of distancing oneself from negative thoughts and emotions or blaming oneself cause an increase in traumatic stress response. Moreover, Osawa, Kamo, & Sakano (2009) and Osawa (2012) demonstrated that people with low traumatic stress responses have deemed traumatic memory recall to be something controllable, and they tend to adopt positive cognitive coping when recalling these memories. Learning about this type of research finding through psychoeducation is considered to be the first step toward preventing traumatic stress.

Yet this raises the following question: what awareness do undergraduates have of coping strategies for recalling traumatic memories? If it is the case that ordinary undergraduates recognize coping strategies that have been shown by research to be ineffective for trauma-related problems to be useful and effective, it may be necessary to give them psychoeducation with a view to dispelling such misunderstandings. However, these types of realities have not been sufficiently clarified.

Thus, the present study will elucidate what type of awareness undergraduates who are at a high risk for experiencing trauma have about the effectiveness and usability of coping strategies for traumatic memory recall. This will be used as basic data that can serve as a reference when devising the content of psychoeducation that is effective for preventing traumatic stress. Furthermore, this study will clarify whether the evaluation of the effectiveness and usability of a coping strategy differs depending on whether a person has experienced a traumatic event.

Methods

Participants

This study was conducted among Japanese undergraduate students over 18 years, living in Western Japan. Questionnaires were distributed to college or university students during classes, and 354 responses were collected from students who agreed to participate in this research. Among the potential participants, 344 individuals (Male=88, Female=254, Unidentified sex=2; mean age=19.84, $SD=1.27$) completed the survey, and their data were used in the analyses. The response rate was 96.89%.

Measures

1) The evaluation of effectiveness and availability of coping strategies To assess how effectively students evaluate coping strategies for traumatic memory recall, participants rated the degree of effectiveness of each item from the Japanese version of Ways of Coping Check Lists-Revised (WCCL-R; Osawa & Sakano, 2007). The WCCL-R consists of 32 items and 5 subscales (“problem-focused coping,” “seeking social support,” “distancing from thoughts and emotions,” “self-blame coping,” and “positive cognitive coping”; Osawa & Sakano, 2007). The reliability and validity of the scale of coping strategies for traumatic memory recall have already been shown (Osawa & Sakano, 2007; Osawa, 2012). In this study, each item was scored on a 5-point scale, from *not effective at all* (1) to *very effective* (5). As the numbers of each subscale’s items are different, the total scores in each subscale divided by the numbers of items of each subscales were used.

To assess how students evaluate and choose each coping strategy for recall, participants rated their frequency of choosing each items of WCCL-R on the assumption that they recalled severe stressful events such as traumatic events. Each item was rated on a 4-point scale from *not at all* (0) to *very often* (3). Concerning the degree of effectiveness, the total scores on each subscale were divided by the numbers of items in each subscale.

2) Traumatic events and traumatic stress responses Participants who answered all questions based on their real experience also answered an additional four items from the Japanese version of the Posttraumatic Diagnostic Scale (PDS; Nagae, Hirohata, Shimura, Yamada, Foa, Nedate, & Kim, 2007). The four items were adopted in order to establish

whether experiences of the participants would meet the criteria A of PTSD of DSM-5 (American Psychiatric Association, 2013). Participants also rated 22 items from the Japanese-language version of the Impact of Event Scale-Revised (IES-R-J; Asukai, Kato, Kawamura, Kim, Yamamoto, Kishimoto, Miyake, & Nishizono-Maher, 2002). The IES-R-J is a self-report measure to assess the intensity of traumatic stress responses (PTSD symptoms). Items were scored on 5-point scale, ranging from *not at all* (0) to *extremely* (4). A score of 24/25 on IES-R-J is used as a cutoff point for a preliminary diagnosis of PTSD (Asukai et al., 2002).

Statistical methods

Cronbach’s α was calculated to examine the internal consistency reliabilities of the WCCL-R and its five subscales. An independent sample *t*-test was used to investigate whether there are gender differences in degree, frequency, and scores on the scales.

One-way ANOVA and the Bonferroni test were performed for the WCCL-R to determine differences in five types of coping strategies. One-way ANOVA (group factor) and the Bonferroni test were also conducted for the WCCL-R to evaluate group effect in each coping strategy. The .05 level of significance was adopted and SPSS (Version 20.0) was used for all statistical analyses.

Ethical considerations

This study was approved by the Ethics Committee of Konan University (approval No. 14-09). Verbal and written explanations of the purpose and procedures of this research, crisis intervention for participants who felt physically or psychologically ill during or after the survey, were provided to all participants prior. Participants who agreed to participate in this study provided informed consent to the researcher (author) and filled out the questionnaires. No participant suffered or complained of health problems during or after conducting this research.

Results

The reliability of WCCL-R

The internal consistency reliabilities (Cronbach’s α) of the WCCL-R and its five subscales ranged from .66 to .86 (degree of effectiveness: $\alpha=.66-.85$; selection frequency: $\alpha=.67-.90$). Although only the subscale of “positive cognition coping” showed moderate internal consistency (the degree of effectiveness: $\alpha=.66$; the selection frequency: $\alpha=.67$; for

other scales, $\alpha > .80$), all scales showed acceptable internal consistencies.

Gender differences

Gender differences in degree, frequency, and scores on scales were examined by using the *t*-test. The results of the *t*-test showed that women's degree of effectiveness in "seeking social support" were significantly higher than that of men's (Male: $N=88$, $M=3.60$, $SD=.79$; Female: $N=254$, $M=3.93$, $SD=.78$; $t(340)=-3.43$, $p<.01$). The results also showed that women's frequency in selecting "seeking social support" were significantly higher than that of men's (Male: $M=1.30$, $SD=.70$; Female: $M=1.73$, $SD=.75$; $t(340)=-4.74$, $p<.001$).

The evaluation of effectiveness and availability of coping strategies toward recall

One-way ANOVA results showed significant differences in the degree of effectiveness ($F(3.19, 1092.40)=523.30$, $p<.001$) and in the selection frequencies ($F(3.09, 1060.21)=73.34$, $p<.001$; Table 1). Multiple comparisons using Bonferroni's method revealed that the degree of effectiveness and selection frequency of "seeking social support" were the highest of all strategies for traumatic memory recall (All: $p<.001$). It also showed that the degree of effectiveness and selection frequency of "problem-focused coping" and "positive cognition coping" were significantly higher than those of "self-blame coping" and "distancing from thoughts and emotions" (All: $p<.001$). The results of the post-hoc test showed that the degree of effectiveness and selection frequency of "self-blame coping" were the

lowest among the coping strategies (All: $p<.001$).

Difference of recognition in having experienced a traumatic event

Participants were assigned to three groups based on the scores from the PDS; Trauma-A group ($N=73$; Male=18, Female=53, Unidentified sex=2, mean age=19.82, $SD=1.14$) where participants' traumatic events may meet the criteria A of PTSD, Trauma-non A group ($N=146$; Male=39, Female=107, mean age=19.90, $SD=1.50$) where participants' traumatic events do not meet criteria A, and the Non-trauma group ($N=87$; Male=21, Female=66, mean age=19.84, $SD=.94$). The result of the *t*-test showed that no differences were found in the scores on IES-R-J between Trauma-A group and Trauma-non A group (The scores in Trauma-A group: $M=31.93$, $SD=18.32$; the scores in Trauma-non A group: $M=28.57$, $SD=17.78$; $t(217)=-1.31$, *n.s.*).

The degree of effectiveness of each coping strategies by each group were measured and compared. One-way ANOVA results showed significant differences in the degree of effectiveness of "problem-focused coping" ($F(2, 163.98)=8.40$, $p<.001$) and "positive cognitive coping" ($F(2, 159.28)=3.90$, $p<.05$) and marginally significant differences in the degree of effectiveness of "distancing from thoughts and emotions" ($F(2, 303)=2.41$, $p<.10$). The results of the post-hoc test using Bonferroni's method showed that Trauma-A group's degree of effectiveness of "distancing from thoughts and emotions" tended to be higher than Non-trauma group's

Table 1 Estimated marginal means (*M*) and standard deviations (*SD*) of the degree of effectiveness and frequency of selecting coping strategies

	Problem-focused coping (1)	Positive cognitive coping (2)	Seeking social support (3)	Self-blame coping (4)	Distancing from thoughts and emotions (5)	<i>F</i>	The results of Post-hoc test
Degree of effectiveness							
<i>M</i>	3.44	3.37	3.85	1.82	2.34	523.30***	(3)>(1), (2), (4), (5) (1), (2), (3), (5)>(4) (1)>(4), (5) (2)>(4), (5)
<i>SD</i>	.03	.04	.04	.05	.04		
Frequency of selecting							
<i>M</i>	1.25	1.34	1.62	0.89	0.97	73.34***	(3)>(1), (2), (4), (5) (1), (2), (3), (5)>(4) (1)>(4), (5) (2)>(4), (5)
<i>SD</i>	.03	.04	.04	.05	.03		

Table 2 Means (*M*) and standard deviations (*SD*) of the degree of effectiveness and frequency of selecting coping strategies in each group

	Non-trauma group (N=87)		Trauma-non A group (N=146)		Trauma-A group (N=73)		<i>F</i>	The results of Post-hoc test
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Degree of effectiveness								
Problem-focused coping	3.61	.51	3.46	.58	3.21	.68	8.40***	Trauma-A < Trauma-non A, Non-trauma
Positive cognitive coping	3.46	.74	3.46	.74	3.13	.92	3.90*	Trauma-A < Trauma-non A, Non-trauma
Seeking social support	3.87	.63	3.92	.74	3.75	.89	1.05	
Self-blame coping	1.69	.75	1.84	.90	1.86	.83	1.15	
Distancing from thoughts and emotions	2.25	.71	2.33	.68	2.49	.68	2.41 [†]	Trauma-A > Non-trauma
Frequency of selecting								
Problem-focused coping	1.27	.50	1.26	.51	1.14	.49	1.82	
Positive cognitive coping	1.35	.67	1.40	.65	1.20	.71	2.38 [†]	Trauma-A < Trauma-non A
Seeking social support	1.60	.64	1.68	.78	1.49	.80	1.50	
Self-blame coping	.54	.77	1.08	1.01	1.01	.92	12.13***	Trauma-A, Trauma-non A > Non-trauma
Distancing from thoughts and emotions	.80	.62	1.02	.64	1.08	.61	4.57**	Trauma-A, Trauma-non A > Non-trauma

[†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

($p < .10$; Table 2). The results of the post-hoc test also revealed that Trauma-A group's degree of effectiveness of "problem-focused coping" and "positive cognitive coping" was significantly lower than the other two groups (All: $p < .05$; Table 2).

The frequency of choosing each coping strategies by each group were also measured and compared. One-way ANOVA results showed significant differences in the selection frequency of "self-blame coping" ($F(2, 175.05) = 12.13$, $p < .001$) and "distancing from thoughts and emotions" ($F(2, 303) = 4.57$, $p < .05$). The results of multiple comparisons using Bonferroni's method revealed that the selection frequency of these two strategies in the Non-Trauma group showed significantly lower than the other two groups (All: $p < .05$; Table 2).

Discussion

This study aimed to investigate undergraduates' opinions on the effectiveness and availability of coping strategies for traumatic memory recall. The present study also intended to examine whether the evaluation of the effectiveness and availability of coping strategies would differ depending on whether the participant had experienced a traumatic event. This study's implications toward the preven-

tion of traumatic stress are discussed below.

The findings of this study showed that undergraduates considered "seeking social support" to be the most effective and available coping strategy for traumatic memory recall. In particular, it showed that female students thought this strategy was more effective and available than male students did. According to a traumatic stress-coping model focusing on sexual specificity (Olf, 2008), women are predisposed to show a "tend and befriend" reaction after they encounter a traumatic event. These findings indicate that when women are amid a traumatic event and in the aftermath of one, in recalling it, their predisposition may be to find reliable and supportive people and try to share their horrible experience and its related negative emotions with them to decrease their distress.

However, previous studies (e.g., Osawa & Sakano, 2007; Osawa, 2012) indicate that the frequency of adoption and use of "seeking social support" for recall is not related to the intensity of the traumatic stress responses. Nevertheless, it should be noted that most undergraduates regarded "seeking social support" as effective and available in this study. Meanwhile, some studies suggested that perceived social support may play a significant role in improv-

ing mental health after trauma (e.g., Schweitzer, Melville, Steel, & Lasherez, 2006). From these findings, it is suggested that the quality of social support obtained after recall is important to decrease traumatic stress responses. Future studies are needed to identify what types of social support are effective to prevent the aftermath of recall and traumatic stress from developing and becoming chronic and to examine the effectiveness of psychoeducation for undergraduates aimed at performing help-seeking appropriately to obtain effective social supports after traumatic memory recall.

The findings of this study also showed that undergraduates regarded “self-blame coping” as the least effective and available strategy in response to traumatic memory recall. As shown by Osawa & Sakano (2007) and Osawa (2012), frequent use of “self-blaming” and “distancing from thoughts and emotions” for recall has a negative effect on traumatic stress responses. Many young adults also understand that it is no use to blame oneself in order to reduce distress after a recall. Nevertheless, as shown in the results of this study, those who have a traumatic event have considered “self-blame coping” and “distancing from thoughts and emotions” as more available than those who have had no trauma. In particular, the findings also showed that people who have trauma that meet criteria A tended to evaluate the effectiveness of “distancing from thoughts and emotions” higher than those who have no trauma. In addition, the results of this study revealed that people who have experienced trauma meeting criteria A evaluated effectiveness of “positive cognition coping” lower than those who do not have trauma that meet criteria A. As previously mentioned, people with low traumatic stress responses appraise traumatic memory recall as controllable and tend to adopt positive cognitive coping strategies; the frequent use of such strategies may decrease traumatic stress responses (e.g., Osawa, 2012).

Summarizing these findings, it is possible that individuals who experience a traumatic event may regard coping strategies that worsen traumatic stress responses as positive and tend to choose them. In order not to adopt inappropriate coping strategies and cause traumatic stress to worsen, providing the opportunities (psychoeducation) to learn about coping strategies for traumatic memory recall to undergraduates and evaluating its effectiveness on trau-

matic stress is needed.

The current study has limitations. First, participants were undergraduates who did not major in clinical psychology, but all had attended classes related to it. Participants were neither asked about their history of using mental health services nor concretely what trauma they had experienced. It would be possible to differentiate the evaluation of coping strategies depending on the knowledge on trauma or the type of traumatic events. Second, the number of female students was larger than that of male students. Although some studies have reported that female incidence of PTSD is approximately double of that of males (Olf, 2008), future studies are needed to increase the number of male samples and examine the generalizability of the results of this study. Third, participants were limited to undergraduates. In future studies, the range of participants must be expanded, including clinical groups. In addition, it is urgent to develop a Japanese version of measures based on the criteria of PTSD of DSM-5. Fourth, it is doubtful whether participants of this study are able to successfully imagine the situation of traumatic memory recall. Further research is needed to investigate the effectiveness and availability of coping strategies under the unified condition, such as using a specific scenario about the situation of traumatic memory recall.

However, this study, which showed gaps between the recognition of general undergraduates and research results, may provide important information for the consideration of the contents of effective preventive psychoeducation of traumatic stress for undergraduates.

Acknowledgments

I thank all the undergraduates for their time and cooperation toward this research.

References

- American Psychiatric Association 2013 *Diagnostic and Statistical Manual of Mental Disorders*, Fifth edition. Washington, D.C.: American Psychiatric Association.
- Asukai, N., Kato, H., Kawamura, N., Kim, Y., Yamamoto, K., Kishimoto, J., Miyake, Y., & Nishizono-Maher, A. 2002 Reliability and validity of the Japanese-language version of the impact of Event Scale-Revised (IES-R-J): Four studies of different traumatic events. *Journal of Nervous and Mental Disease*, **190**, 175–182.

- Bostwick, J. M., & Pankratz, V. S. 2000 Affective disorders and suicide risk: A reexamination. *American Journal of Psychiatry*, **157**, 1925–1932.
- Chan, A. O. M., Air, T. M., & McFarlane, A. C. 2003 Posttraumatic stress disorder and its impact on the economic and health costs of motor vehicle accidents in South Australia. *Journal of Clinical Psychology*, **64**, 175–181.
- Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., & Fennell, M. 2005 Cognitive therapy for post-traumatic stress disorder: Development and evaluation. *Behavior and Research and Therapy*, **43**, 413–431.
- Ehlers, A., & Steil, R. 1995 Maintenance of intrusive memories in PTSD: A cognitive approach. *Behavioral and Cognitive Psychotherapy*, **23**, 217–249.
- Ikin, J. F., Creamer, M. C., Sim, M. R., & McKenzie, D. P. 2010 Comorbidity of PTSD and depression in Korean War veterans: Prevalence, predictors, and impairment. *Journal of Affective Disorders*, **125**, 279–286.
- Kawakami, N. 2010 Traumatic event to posttraumatic stress disorder no risk: ikichika PTSD no hindo to event tonokanren. *Heisei 21 nendo Kouseiroudoukagakukenyuhijokinyokin (kokoro no kennkou kagaku kennkyu jigyou) buntankenkyu houkokusyo*, 17–25. (In Japanese)
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. 1995 Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, **52**, 1048–1060.
- Michael, T., Ehlers, A., Halligan, S. L., & Clark, D. M. 2005 Unwanted memories of assault: what intrusion characteristics are associated with PTSD? *Behavior Research and Therapy*, **43**, 613–628.
- Nagae, N., Hirohata, S., Shimura, Y., Yamada, S., Foa, E. B., Nedate, K., & Kim, Y. 2007 Development of the Japanese version of the posttraumatic diagnostic scale: Ascertaining its reliability and validity among university students. *Japanese Journal of Traumatic Stress*, **5**, 51–56.
- Olf, M. 2008 PTSD ni okeru seisa (Gender differences in post-traumatic stress disorder). *Japanese Journal of Traumatic Stress*, **6**, 157–171. (Japanese translation without English title and abstract)
- Osawa, K. 2012 *Gaisyoutaikensoukiji no Ninchi/koudou to Gaisyouseisutoreuhannou* [Cognition/behavior toward Recall of Traumatic Memories and Traumatic Stress Responses]. Tokyo: Kazamashobo. (In Japanese)
- Osawa, K., & Sakano, Y. 2007 Coping strategies towards traumatic memory recall and their effect on traumatic stress responses: A multiple regression study. *Japanese Journal of Stress Sciences*, **21**, 223–232. (In Japanese with English abstract)
- Osawa, K., Kamo, T., & Sakano, Y. 2009 Influences of cognitive appraisal and coping strategies toward recalling traumatic memories on traumatic stress responses in psychiatric outpatients with PTSD symptoms, The 43rd Annual Convention of the Association for Behavioral and Cognitive Therapy (New York, USA), 10. (Abstract in program addendum)
- Read, J. P., Griffin, M. J., Wardell, J. D., & Ouillette, P. 2014 Coping, PTSD symptoms, and alcohol involvement in trauma-exposed college students in the first three years of college. *Psychology of Addictive Behaviors*, **28**, 1052–1064.
- Schweitzer, R., Melville, F., Steel, Z., & Lasherez, P. 2006 Trauma, post-migration living difficulties, and social support as predictors of psychological adjustment in resettled Sudanese refugees. *Australian and New Zealand Journal of Psychiatry*, **40**, 179–187.
- Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. 2005 Twelve-month use of mental health services in the United States results from the National Comorbidity Survey Replication. *Archives of General Psychiatry*, **62**, 629–640.
- Wessely, S., Bryant, R. A., Greenberg, N., Earnshaw, M., Sharpley, J., & Hughes, J. H. 2008 Does psychoeducation help prevent posttraumatic psychological distress? *Psychiatry: Interpersonal and Biological Processes*, **71**, 287–302.

(Received: 2015.6.30; Accepted: 2016.2.29)