Evaluation of the Ukrainian-Language E-Course «Socio-Psychological Support of Adaptation of Veterans»

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Abstract.
Introduction. Modern mobile applications have extremely growing potential in the specific mental health information spreading. While other psychorehabilitation means for veterans with PTSD risks can reach only limited amount of them, the electronic interventions are to engage all those who use mobile devices (Kuehn, 2011). Since most of ATO veterans participated in the armed conflict on the East of Ukraine are predominantly young smartphone users, there’s no need for special procedures in seeking mental health care – just downloading the app and the accurate usage of it. Mental health mobile apps with a strong evidence base are convenient at any time and place, save resources for both caregivers and traumatized individuals, and rise user autonomy and flexibility (Prentice & Dobson, 2014). But there were any evaluated Ukrainian-language apps which could have enough evidence for safe usage.

Purpose. Satisfying the requirements of CBT-based information as an alignment with traditional psychotherapy methods the Ukrainian-language e-course “Socio-Psychological Support of Adaptation of Veterans” integrated into the app “Pocket Psychologist” was spotted as an appropriate tool for a prior self-help in PTSD prevention. The e-course itself contains practical information to challenge the unhelpful beliefs about the negative outcomes of various situations and involves the user into the therapeutic processes such as attention training, acceptance and tolerance training, and mindfulness (Gorbunova, et al., 2016). The purpose was to evaluate its efficacy in decreasing early post-traumatic symptoms.

Methodology. The study was designed for the two non-equivalent groups with previous and repeated measurements. Experimental group included 30 participants, control group – 27 participants, all 26 to 34 years old male ATO veterans who returned from the combat zone from 3 months to 1 year ago. Data collection was organized by online involvement through veteran NGO’s pages on Facebook. All participants had to fill the online questionnaire “Impact of Event Scale” (adaptation of Ukrainian Institute of Cognitive-Behavioral Therapy) before and after the experimental impacts. The experimental group participants had to be the owner of smartphone or tablet, and were instructed how to use the e-course for 30 days, while the control group was encouraged to repeat the filling of the questionnaire in 30 days. In order to determine the levels of psychotraumatization on the basis of data obtained by the “Impact of Event Scale”, the intra-group norms were determined (low, below moderate, moderate, below high, high levels) and correlated to the participants’ indicators. Since the normality of data distribution was detected by 1-Sample K-S procedure the difference in the indicators was defined by Independent Samples T-test (SPSS 16.0).

Results. The previous measurements showed that the biggest amount of participants had moderate levels of traumatic symptoms, and the repeated measurements showed more of levels in below moderate and low range. The
decrease of traumatic symptoms in experimental group appeared to be more significant than in control group. The difference in the avoidance symptoms before and after e-course usage was credible on \( p=0.001 \), while control group with only time variable had changes on \( p=0.85 \). The similar picture was observed in the intrusions scale – \( p=0.013 \) vs \( p=0.86 \), and by the hyperarousal scale – \( p=0.034 \) vs \( p=0.9 \). These results allow to suggest studied e-course as an effective one to provide specific mental health information to veterans in order to decrease early PTSD-symptoms.

**Limitations and strengths.** The study reveals some limitations. The participants could be motivated to be engaged into the e-course by different personal reasons not only because they wanted to deal with their post-traumatic stress. The study wasn’t expanded to understand these motives as well as the inner processes of the app usage. The levels of the stress symptoms were predominantly medium which throw doubts on the studied e-course efficacy for severe symptoms. Finally, the difference between the traditional approach for post-traumatic stress and presented tool for its measurement can also cause methodological issues. But taking into account that this study is limited by the features of the sample and one-dimension methodology, it is still evidential. It was provided with accurate assessments, data management, and statistical analysis; the confidentiality of the participants was kept up; and the outcomes of app usage were for sure helpful for participants. In addition, the study is the first to report on validity of Ukrainian-language apps for psychotrauma overcoming and can start the new wave of investigations on mental health applications in Ukraine.

**Practical and social value.** The fact that the untimely detection of posttraumatic stress can seriously pathologize everyday lives of the injured persons and their communities indicates that a tool such as “Socio-Psychological Support of Adaptation of Veterans” might be a highly relevant source for people at risk of PTSD. By attracting social attention for such economically profitable psychoeducational tool the field of socio-psychological rehabilitation can benefit in order to save time and money in early mental health care of veterans.

**Conclusions.** The e-course “Socio-Psychological Support of Adaptation of Veterans” can be successfully used to prevent PTSD development for those veterans who are really susceptible to such stimulus. The access to the mobile device, the experience of its usage, the personal traits, the age, the status, the living conditions, etc. can play a big part in the adherence to the e-self-help. Therefore, the findings on the conditions which can engage more of injured veterans into the specified mental health apps are assumed to be an open perspective. As studied e-course encourage users to learn more about their mental state and effective coping-strategies it is also a promising tool as the early stage substitution in PTSD rehabilitation.

**Keywords:** mental stress, disease prevention, social rehabilitation, mobile phone, computer applications.

**References**


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