Can patriotism be a protective factor for symptoms of Post-Traumatic Stress Disorder? The Case of the Russia – Ukraine 2022 War.

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Abstract

The 2022 Russian invasion of the Ukraine created a large-scale humanitarian crisis that has intensified as the conflict persists. The impact of armed conflict, such as forced migration, exposure to violence, supply shortages, destruction of infrastructure, and interruption of essential services, can have serious negative consequences for the mental health and wellbeing of Ukrainians living through the invasion and its aftermath. At the same time threat to a nation can trigger a wave of patriotism. Such feelings of patriotic belonging, love, pride and caring for a country can help maintain national group cohesion and respect for civic authorities. We studied demographic and war related factors associated with patriotic attitudes and posttraumatic stress disorder (PTSD) symptoms in a national Ukraine sample of 2000 respondents six weeks into this crisis. Respondents completed an online inventory assessing patriotic attitudes, PTSD symptoms, having relatives wounded or killed, having relatives who left Ukraine due to the war, alongside key demographics. Hierarchical regressions found that having relatives that were wounded or that left Ukraine because of the war and those coming from a Ukrainian speaking region were associated with patriotic attitudes. Patriotic attitudes were positively associated with elevated risk for PTSD symptoms. Mental health professionals should consider the potential mental health burden of existential national conflicts amongst civilian populations with strongly patriotic attitudes.

Key words: patriotic attitudes, post-traumatic stress disorder (PTSD)symptoms, Russian – Ukraine war,

Highlights

* The role of patriotic attitudes in predicting PTSD symptoms during war has not been previously studied.

* We examined patriotism amongst a national sample of 2000 adults in Ukraine six-weeks into the Russian invasion (2022).

* Region of Ukraine and having relatives that were wounded or had left the country were associated with patriotic attitudes.

* Patriotic attitudes were positively associated with an elevated risk for PTSD symptoms

* Health professionals need to be aware of the association between PTSD and patriotism when designing interventions during intense national conflict.

Can patriotism be a protective factor for symptoms of Post-Traumatic Stress Disorder? The Case of the Russia – Ukraine 2022 War.

On 24 February 2022, Russia invaded Ukraine, leading to substantial mortality and morbidity and the mass exodus of millions of Ukrainians from their country. Exposure and proximity to such traumatic events can lead to the development of post-traumatic stress disorder (PTSD) (May and Wisco, 2016). The Russian invasion of Ukraine also risked re-exposure to a traumatic stimulus evident during the annexation of Crimea in 2014 (Breslau et al., 1999; Jawaid et al., 2022). At the same time threat to a nation can trigger a wave of patriotism (Schatz et al., 1999), with the Ukrainian flag and other patriotic symbols common on tattoos and billboards (WION, 2022). According to the PEW research center (2002), a year after the September 11th 2001 attacks, 62% of the Americans claimed that they often felt patriotic as a result of the attacks. Such feelings of patriotic belonging, love, pride and caring for a country can help maintain national group cohesion and respect for civic obligations (Daucé et al., 2013) and serve as a defensive mechanism for individuals who feel vulnerable (Sahar, 2008). Patriotism may function positively through strengthening a sense of belonging and supporting social identities (Bar-Tal, 1993), and, by strengthening group cohesion, mobilize collective actions.

Given the above, assessing the potential protective value of patriotic attitudes and their association with mental health disorders, especially during wartime, can make a novel contribution to the scientific literature. To our best knowledge, this has not been studied in previous work. The aims of current study were twofold: First, to explore predictors of patriotism attitudes amongst Ukrainians during wartime; Second, to examine associations between patriotic attitudes and PTSD symptoms

among Ukrainians during the conflict, alongside socio-demographic and war-related variables.

1. Methods

1.1. Procedure and participants

An online survey of the Ukraine population was conducted from April 7 through April 15, 2022 by a Ukrainian Survey company (Kantar). Inclusion criteria were age 18-55 and fluency in Ukrainian. The Kantar Survey company used an existing panel of Ukrainians aiming at obtaining representation of age, sex and region (before displacement). We estimated a sample of 1975 participants would be required to detect low-medium effect sizes of 0.20, with 99% power and a 1% significance level (G-power software version 3.1.9.4). Of 2,765 who clicked through to the survey, 2,000 (72.3%) responded fully, 176 (6.4%) were screened out for failing to meet inclusion criteria, a further 326 (11.8%) withdrew during the survey and 263 (9.5%) were cut to meet quota. The dataset can be accessed through osf.io/z5adg.

Each participant received a digital invitation to participate in the study and provided electronic informed consent. The mean age of the sample was 37.18 (SD = 9.23; range 18-55), more than half were women (n = 1026, 51.3%), and 66.6% of the participants (n = 1333) were married. One thousand forty-seven participants (52,4%) had children under the age of 16. In terms of region before displacement, 28.5% (n= 569) of the participants were from the East, 24.2% (n= 483) from Kyiv, 17.9% (n= 358) from the West, 10.8% (n= 217) from the Center, 10.6% (n= 213) from the South and 8% (n= 160) of the participants from the North.   We divide this into two groupings for analysis: Russophone or non- Russophone area (respectively: East, South vs. West, Kyiv, North and Center). The study was approved by the Institutional

Review Board of the first author's University.

1.2 Measures

Respondents reported demographic information (sex, age, marital status, having children under the age of 16 and region), with war related information assessed by three questions: "Do you have relatives that were wounded during the current war?"; " Do you have relatives that were killed in the current war?"; and "Do you have relatives that left Ukraine because of the current war?" (All rated Yes /No). Patriotic attitudes were measured with 20 items on a scale from 1= Not true for me to 4= Very true for me. (e.g., "I feel a sense of belonging to Ukraine no matter the challenges"; "It is necessary for me to serve my country"). A higher total sum of all items indicates higher patriotic attitudes (Balogun and Mahmud, 2020). In the current study, Cronbach's α= 0.97. PTSD symptoms were measured using the International Trauma Questionnaire (ITQ; Cloitre et al., 2018) using a scale of `0` not at all to `4` extremely (e.g., "Being super-alert, watchful, or on guard"). In the current study Cronbach's α= 0.90. For more details see Table 1

1.3. Data analysis

Data were analyzed using SPSS version 26. We begin with descriptive analysis. Then, we conducted hierarchical regressions analysis, where patriotic attitudes were regressed on the study variables in two steps. In the first step, we included socio-demographic variables namely, age, gender, marital status, having children under the age of 16 and region. The second step included the war related information: "Do you have relatives that were wounded during the current war?"; " Do you have relatives that were killed in the current war?"; and "Do you have relatives that left Ukraine because of the current war?" (Table 2). Additional hierarchical regression analysis was conducted where PTSD symptoms were

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regressed on the study variables in three steps. In the first step, socio-demographic variables were included and in the second step war related information inserted. The third step included patriotic attitudes (Table 3). The effect size of each block in the regressions was measured using Cohen's f^2.

Results

In our first regression, conducted to regress patriotic attitudes, younger age (β=-.047, t=-1.996, p = .046) and region (i.e., non- Russophone area) (β=.153, t=6.920, p < .001) were associated with stronger patriotic attitudes in the first step (Cohen's f^2 = 0.03). Adding the war related factors in the second stage revealed that only region (β=.150, t=6.797, p < .001), having wound relatives (9.6% n= 192) (β=.063, t=2.557, p = .011) and having a relative who have left the Ukraine (39.4% n= 788) (β=.063, t=2.793, p = .005) were associated with patriotic attitudes (Cohen's f^2 = 0.04). Having relatives killed in the current war (5.8% n=115) (β=-.016, t=-.670, p > .05) was not associated with patriotic attitudes (See Table 2 for more details).

In the second regression, conducted to regress PTSD symptoms, being a female (β=.247, t=11.038, p < .001) and having children under the age of 16 (β= .083, t= 3.506, p < .001), was associated with higher PTSD symptoms in the first step (Cohen's f^2 = 0.10). The same was true for steps 2 and 3. In addition, having a wounded relative (β= .069, t= 2.885, p = .004) and having a relative that left the Ukraine (β= .104, t= 4.721, p < .001) were associated with PTSD symptoms in the second step (Cohen's f^2 = 0.08). All the aforementioned war-related variables were also found to be correlated significantly in the third step. Finally, having positive patriotic attitudes was associated with PTSD symptoms (β= .183, t= 8.565, p < .001), (Cohen's f^2 = 0.03). For more details, see Table 3.

Discussion

The present research focused on patriotic attitudes amongst the Ukrainian population during the Russian invasion of 2022. Patriotism has previously been positively associated with well-being, satisfying needs for security, being loved and respect (Ercan, 2017). In our study patriotism varied significantly across region, in line with previous work elsewhere identifying city-level variations in patriotism (Ercan, 2017), with patriotism in our data higher in non-Russophone areas (Kyiv, Central Regions, the West and North, compared to the East and South). This is consistent with other recent analyses in Ukraine: Western provinces are regarded as more pro-Ukrainian, European-leaning, agrarian and Catholic; Eastern provinces more Russophone and industrialized, Orthodox and pro-Russian (Norris and Kizilova, 2022). A public opinion survey of residents of Ukraine conducted by the Center for Insights in Survey Research (2022) showed that, amongst Russian-speaking Ukrainians, 51% were willing to fight against Russian invasion, compared to 61% among the Ukrainian-speaking population. In contrast to previous work which conducted among Turkish university students (Ercan, 2017), we failed to find sex differences in patriotism. This suggests that patriotic feelings may be held equally widely between the sexes during this time of intense conflict. Similarly, age was not associated with patriotism when war-related factors were included in the regression model. According to the public opinion survey of residents of Ukraine (Center for Insights in Survey Research, 2022) when respondents were asked "Would you support or oppose the idea that Ukraine should recognize Crimea as a part of Russia if this would stop the war?" similar proportions "rather opposed" this proposition (69% of those aged 18-35, 67% of aged 36 and above).

Our results also showed that those who reported having relatives that were wounded and those who had relatives that left Ukraine because of the current war reported stronger patriotic attitudes. These results might be explained through the looming vulnerability model (Riskind, 1997; Riskind, et al., 2000), which argues that a person's sense of vulnerability can occur either as a result of an objective stimulus, or as the result of an acquired cognitive bias that generates scenarios of rapidly rising risk, or as an interaction of both. After being exposed to the high human cost of the Russian military attacks, patriotic attitudes may become stronger to help regulate such a sense of vulnerability. Nevertheless, we recognize that effect sizes here were small. Future studies might include other war related variables (e.g., being a soldier in the war, suffering property damage) in order to extend our understanding of such war related factors and patriotic attitudes.

A novel contribution of the present study relates to association between patriotic attitudes and PTSD symptoms. In our study patriotic attitudes were found to be a risk rather than a protective factor for PTSD, even if the zero-order association was of modest size. Patriotism invokes a positive affective attachment with one's own country and community (Tajfel and Turner, 1986). Thus, it might be that the current war damaged the "shattered dream" of a democratic and progressive nation particularly evident since the Maidan uprising of 2014. Consistent with this notion, our results found higher PTSD among those who reported that their relatives left Ukraine due to the present war. A further possible explanation may be derived from cognitive models of PTSD (Dalgleish, 2004; Ehlers & Clark, 2000). Here, subjective peri-traumatic experiences, such as perceived threat, play a significant role in the development of PTSD. The annexation of Crimea in 2014 may have triggered frightening events among the Ukrainian population further aroused by the present

invasion of Russia of Ukraine, stimulating a feeling of belonging and attachment to the country (i.e., patriotism). Thus, future (ideally longitudinal) studies are needed to assess previous traumatic events and their association with patriotic attitudes and mental health disorders.

Our study is one of the first to study factors associated with patriotism and the link between patriotism and mental health during an ongoing conflict. However, we recognize a number of limitations to our study. These include the lack of pre-measurement of the study variables, the cross-sectional design of the study, and the relatively modest amount of variance explained in our regressions. Further studies should replicate the present study in other countries during war events. Further work might explore associations between patriotic attitudes and other mental health disorders (e.g., adjustment or mood disorders). Mental health professionals should consider the potential mental health burden of existential national conflicts amongst civilian populations with strongly patriotic attitudes. As patriotic attitudes are associated with cognitive-affective aspects of attachment to the country (Bar-Tal, 1993), cognitive-behavioral therapy (CBT) may be an effective tool to reduce PTSD symptoms (Shubina, 2015). Using contemporary models of PTSD cognitive therapy (e.g., Ehlers & Clark, 2000, Reineckie & Clarc, 2005) a combination of cognitive and behavioral techniques may help patients identify and modify distorted beliefs connected with their PTSD, thus helping address their symptoms.

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Table 2: Factors associated with patriotic attitudes following the Russian- Ukraine war 2022

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Step 1					
Age	-.060	.030	-.047	-1.996*	.046
Sex (female)	.964	.541	.041	1.781	.075
Marital status (in cohabitation)	.673	.618	.027	1.090	.276
Having children under the age of 16	.917	.575	.039	1.595	.111
Region	3.703	.535	.153	6.920***	<.001
Step 2					
Age	-.047	.030	-.037	-1.561	.119
Sex (female)	.931	.540	.039	1.724	.085
Marital status (in cohabitation)	.460	.618	.018	.745	.457
Having children under the age of 16	.683	.576	.029	1.186	.236
Region	3.628	.534	.150	6.797***	<.001
Relative wounded (yes)	2.536	.992	.063	2.557*	.011
Relatives killed (yes)	-.828	1.236	-.016	-.670	.503
Relative left Ukraine (yes)	1.528	.547	.063	2.793**	.005
Model summary					
Step 1	R = .173; R^2= .030; R^2 change = .030; F (5,994) = 12.248; P = < .001; Cohen's f^2 = 0.03				
Step 2	R = .195; R^2= .038; R^2 change = .008; F (3,991) = 5.691; P < .001; Cohen's f^2 = 0.04				

*p<.05; **p<.01; ***p<.001

Table 3: Factors associated with PTSD symptoms following the Russian-Ukraine war 2022

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Step 1					
Age	-.004	.012	-.008	-.353	.724
Sex (female)	2.423	.220	.247	11.038***	<.001
Marital status (in cohabitation)	.253	.250	.024	1.008	.313
Having children under the age of 16	.817	.233	.083	3.506***	<.001
Region	.039	.217	.004	.180	.857
Step 2					
Age	.004	.012	.008	.349	.727
Sex (female)	2.383	.218	.243	10.957***	<.001
Marital status (in cohabitation)	.103	.249	.010	.415	.678
Having children under the age of 16	.661	.232	.067	2.848**	.004
Region	-.003	.215	.000	-.015	.988
Relative wounded (yes)	1.152	.399	.069	2.885**	.004
Relatives killed (yes)	.575	.498	.027	1.155	.248
Relative left Ukraine (yes)	1.040	.220	.104	4.721***	<.001
Step 3					
Age	.008	.012	.015	.655	.513
Sex (female)	2.313	.214	.236	10.816***	<.001
Marital status (in cohabitation)	.068	.245	.007	.279	.780
Having children under the age of 16	.609	.228	.062	2.671**	.008
Region	-.279	.214	-.028	-1.305	.192
Relative wounded (yes)	.960	.393	.058	2.443*	.015

Relatives killed (yes)	.638	.489	.030	1.304	.192
Relative left Ukraine (yes)	.924	.217	.092	4.262***	<.001
Patriotic attitudes	.076	.009	.183	8.565***	<.001

	Model summary
Step 1	$R = .271$; $R^2 = .073$; R^2 change = .073; $F (5, 1994) = 31.573$; $P < .001$; Cohen's $f^2 = 0.08$
Step 2	$R = .306$; $R^2 = .094$; R^2 change = .020; $F (3, 1991) = 14.848$; $P < .001$; Cohen's $f^2 = 0.10$
Step 3	$R = .355$; $R^2 = .126$; R^2 change = .032; $F (1, 1990) = 73.362$; $P < .001$; Cohen's $f^2 = 0.03$

*$p<.05$. **$p<.01$. ***$p<.001$.