ORIGINAL ARTICLE





A full-scale Russian invasion of Ukraine in 2022: Resilience and coping within and beyond Ukraine

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Funding information

Polish National Science Centre, Grant/Award Number: 2020/37/B/ HS6/02; NextGeneration EU, Grant/Award Number: LX22NPO5101

Abstract

The study examined the resilience and coping of samples from Ukraine and five nearby countries during the war in Ukraine. The research focused on (1) the levels of community and societal resilience of the Ukrainian respondents compared with the populations of five nearby European countries and (2) commonalities and diversities concerning coping indicators (hope, wellbeing, perceived threats, distress symptoms, and sense of danger) across the examined countries. A crosssectional study was conducted, based on data collection through Internet panel samples, representing the six countries' adult populations. Ukrainian respondents reported the highest levels of community and societal resilience, hope, and distress symptoms and the lowest level of well-being, compared to the population of the five nearby European countries. Hope was the best predictor of community and societal resilience in all

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countries. Positive coping variables, most notably hope, but also perceived well-being are instrumental in building resilience. While building resilience on a societal level is a complex, multifaceted task, various dimensions must be considered when planning actions to support these states. It is essential to monitor the levels of resilience, during and following the resolution of the crisis, both in Ukraine and in the neighboring countries.

KEYWORDS

distress, hope, morale, perceived threats, resilience, Russian-Ukrainian war, sense of danger, well-being

INTRODUCTION

War is one of the most devastating experiences humans may face. This experience is accompanied by many difficult struggles that often bring individuals to the limit of their abilities. Wars are frequently accompanied by a variety of vulnerabilities that challenge the various areas of life, from the life of family and relatives to long-term difficulties and dangers of injury and even death. Wars at times oblige people to sacrifice their own lives for the "cause" or to attain safety for their loved ones. Collateral damage and injuries to body and mind, destruction of homes and property, significant economic and social costs, and additional long-term negative effects are but a few aspects of life that occur during conflicts and wars (e.g., Hang et al., 2021; Kimhi et al., 2023).

Russia invaded Ukraine on the 24th of February 2022, as a continuation of the invasion and annexation of Crimean in 2014, and resulting from an additional economic and political agenda (Anghel & Jones, 2022). As of the end of 2021, Ukraine's national resilience was characterized and described as a delicate mosaic with various gaps and sociopsychological and sociopolitical weaknesses, strengths, and other peculiarities (Teperik et al., 2021). The launch of the invasion into Ukraine provoked the most serious military conflict in Europe since 1945 (Kurapov et al., 2022). Until the last moment, most Ukrainian citizens and residents of the region received the invasion with disbelief.

This war affected Ukraine, European countries, and the global community at large, in varied aspects of life. For example, the impact on the food security of countries (Hellegers, 2022), energy prices (Liadze et al., 2022), the global economy (Ozili, 2022), physical health (Sheather, 2022), the mental health of children and adults (Bürgin et al., 2022), and an unprecedented migration crisis (Anghel & Jones, 2022), and this is only a partial list of the war's impacts. Nevertheless, cases of successful resistance have strengthened Ukraine's national self-esteem and illuminated societal attitudes that are instrumental in resilience at personal, community, and national levels (Teperik, 2022). It is possible to speculate that many aspects of the life of people from different countries changed, and will continue to do so, as a result of this war and will most probably present numerous expected as well as unexpected threats to the ways of living, as were known until the launch of the current war. Only three decades prior, Ukraine and many of the neighboring countries had gained independence from the Soviet Union.

Among the effects of the attacks on the Ukrainian citizens, one of the most severe seems to be the intentional harm to non-combatants (uninvolved civilians), many of whom were injured, killed, or forced to flee from their homes, as a means to force Ukraine to accept Russia's terms for a cessation of the fighting (Aydın et al., 2022; Flockhart & Korosteleva, 2022). This includes, among others, various military actions such as the bombing of civilian targets, withholding food, imposing a siege, destroying homes, deliberate damage to energy centers, damage to transportation routes and bridges, and suspension of flights. As a result, millions of Ukrainian citizens became displaced, forced to leave their homes and flee to other regions within Ukraine or neighboring countries, which exposed them to great suffering and risk of exploitation (Cockbain & Sidebottom, 2022; Johnson et al., 2022). As of November 22, 2022, over 7 million refugees from Ukraine have been registered for temporary protection or similar national protection schemes in Europe (UNHCR, 2022).

The vast influx of refugees to neighboring countries, such as Poland, Slovakia, Hungary, Romania, Moldova, Czech Republic, and more, as well as the potential threat of expanding the conflict to additional areas, impacted countries well beyond Ukraine. Such effects include economic, environmental, public health, and social impacts (Lim et al., 2022; Tampubolon, 2022). The levels of social (both community resilience and societal resilience) resiliency of the populations of the neighboring and other affected countries, as well as their capacities to cope with the prolonged conflict, were most likely impacted (Morales-Rodriguez et al., 2021). The issues of resilience and coping are commonly explored among the diverse range of topics investigated in various contexts of adversity. Against this background, this study aims to understand and trace the impact of the current crisis on Ukraine and five nearby countries concerning resilience and coping indicators (Obrist et al., 2010).

Resilience

Beyond the diversity that can be found in the scientific literature concerning the definition of resilience, the common denominator refers to the capacity of the individual, group, or society to successfully cope with adversities of various kinds and to recover as quickly as possible, after the event is over (Métais et al., 2022). In the current study, we measured two types of resilience: community and societal resilience. Former studies indicated that individuals, communities, and entire societies hold diverse levels of resilience (Kimhi, 2016). The two types of resilience examined in the current study refer to the ability of the community and the country's society to cope successfully with the implications of the Ukrainian–Russian war, and hopefully to recover when the war is over.

Coping indicators

Both positive and negative variables are possible measurements of coping indicators. The positive factors include hope (Germann et al., 2015; Snyder et al., 1991), well-being (Medvedev & Landhuis, 2018), and morale (Shaban et al., 2017). These measures indicate successful coping with adversity, such as war. Though each of these three indicators represents a different area of society's ability to cope with adversity, we would expect to get positive correlations among these indices. The three negative coping indicators include anxiety and depressive symptoms (Cullen et al., 2020), a sense of danger (Kimhi et al., 2021), and perceived threats (Kruglanski et al., 2021).

experience and its response to adversity.

KIMHI ET AL. The present study aimed to investigate two major research questions related to the war in Ukraine: (1) What are the similarities and diversities between the population of Ukraine and five nearby European countries, regarding social resilience (community and societal) as well as positive and negative coping indicators during this stage of the war (during the second half of the first year of the war)? (2) To what degree do positive and negative coping indicators predict the two social resilience indicators, in each of the participating countries? To the best of our knowledge, these questions have not yet been studied, and thus, they may substantially contribute to the understanding of how varied countries and communities manage the dangers of contemporary conflicts. The findings further contribute to a broader understanding of the human

METHODS

Data collection

The data were collected via internet panel companies from July to October 2022. The companies that were recruited from each participating country (Ukraine, Lithuania, Poland, Slovakia, the Czech Republic, and Estonia) possessed a database of tens of thousands of individuals from the respective societies. All panel companies that were utilized in the study aim to base the panel on representatives of the varied sectors and groups of their respective societies, in line with their National Statistics Bureau. The quotas in each country were directed. To achieve a representative sample in each country, a stratified sampling was used, regarding gender, age, and geographic dispersion. The members of the panels receive points that may be used to purchase products.

Each sample included residents from all demographic sectors and geographic locations of the country's adult population. This is the case with the exception of Ukraine, where the territories of Crimea, Donetsk, and Lugansk regions that were occupied by Russia could not be included. All questionnaires (originally developed in English) were translated into the native language (back and forth) while maintaining uniform wording. The questionnaire was approved by the Ethics Committee of Tel Aviv University, # 0005146-1 from July 12th, 2022 and all the participants signed an informed consent form prior to their participation.

Participants

The study populations included the following six countries: Ukraine, Lithuania, Poland, Slovakia, the Czech Republic, and Estonia. The following factors were considered in the selection process of the countries that were included in the study, to include diversity among the respondents: (1) geographic proximity to Ukraine and Russia (Ukraine shares borders with Poland and Slovakia making these countries directly neighboring states; Russia shares borders with Lithuania and Estonia; Czech Republic does not share a border with either); (2) historical ties of being part of the former Soviet Union or under its influence (e.g., Poland has a history of conflicts with Russia, while Lithuania and Estonia have concerns about Russia's assertiveness in the region due to previous occupation by the Soviet Union); (3) security concerns about regional stability and security among all these countries (e.g., appears to be more dominant among Poland and Lithuania); (4) varying degrees of energy dependence on Russia

(e.g., Lithuania and Slovakia are countries with the largest share of energy needs satisfied by Russian imports); and lastly (5) closeness of bilateral relations with Russia (e.g., Slovakia and Czech Republic have traditionally maintained closer ties with Russia compared to Poland, Lithuania, and Estonia). All six samples from each respective country included approximately 1000 participants, which were recruited online by the Internet panels. Table 1 presents the characteristics of the participants, according to each country: Average participant ages were around

TABLE 1 Demographic characteristics across the six countries.

Scale	Range	Country	Mean	SD	F
Age groups	18-55	Ukraine	37.26	9.56	
	18–77	Lithuania	41.38	11.16	
	18-89	Poland	46.19	16.03	
	19–86	Slovakia	46.53	15.84	
	18-89	Czech	49.22	15.98	
	15–95	Estonia	49.32	18.97	
Gender		Slovakia	49%	_	
		Poland	48%	_	
		Lithuania	40%	_	
		Czech	49%	_	
		Estonia	53%	_	
		Ukraine	49%	_	
Average family income	$1=below\ family\ average$	Lithuania	_		
	5 = above family average	Estonia	2.02		
		Ukraine	2.49	1.04	
		Poland	2.50	1.28	.91
		Slovakia	2.69	.72	
		Czech	2.98	1.01	
Education (from low to high)	$1=elementary\ school$	Czech	2.63 ^a	1.20	
	5 = academia	Slovakia	2.67 ^a	1.22	
		Poland	3.23 ^b	1.49	276.34***
		Estonia	3.32 ^b	1.07	
		Ukraine	4.03 ^c	.95	
		Lithuania	4.08 ^c	.88	
Family status	Married %	Czech	56	_	
		Slovakia	52	_	
		Poland	64	_	
		Estonia	45	_	
		Ukraine	60		
		Lithuania	66	_	

^{a,b,c}Scheffe post hoc test.

^{***}p < .001.

40–50 years old, though the range was quite different for each country; around 50% from each gender (except for Lithuania with 60% of females); and the mean family income was above the national average. The education levels were significantly different among the participant countries.

Measures

The scales used in the current study were based on validated structured study tools that were previously used in studies during the COVID-19 pandemic (Kimhi et al., 2020). The scales were shortened in a previous research after being validated and deemed reliable (Eshel et al., 2023).

Community resilience

The community resilience scale in the current study includes seven items (based on the original scale that included 10 items; Leykin et al., 2013). Responses to the questionnaire items represent a Likert 5-point scale, ranging from 1 = do not agree at all to 5 = agree to a very large extent. The seven items include: "There is mutual assistance and people in my community care for one another"; "My community is prepared for an emergency including the current crisis"; "Good relationships exist between various groups, in my community"; "I trust the local decision-makers"; "I can count on people in my community to help me in a crisis, including during the war in Ukraine"; "Residents are aware of their roles in an emergency, including the current crisis"; and "Residents in my community trust each other."

Societal resilience

The scale in the current study includes 10 items (based on the original scale that included 13 items; Kimhi & Eshel, 2019). The response scale for societal resilience items ranges from $1 = strongly \ disagree$ to $6 = strongly \ agree$. The 10 items include: "I have full confidence that my government makes the appropriate decisions in managing the current crisis"; "During national crisis, such as the current war in Ukraine, the society in my country will back up government decisions and those of the prime minister/president"; "I have full confidence in the ability of the security forces of my country to protect our population including during the war in Ukraine"; "My country is my home and I don't intend to leave it"; "I am optimistic about the future of my country"; "I trust my government to know how to successfully deal with the multi-dimensional crisis because of the war in Ukraine"; and "Rate the level of trust you have in the following institutions, during these days 1) Police; 2) The parliament; 3) The media; 4) The armed forces."

Hope

The scale used in the current study is based on an earlier version of the hope scale (Jarymowicz & Bar-Tal, 2006), originally designed to measure the level of hope for peace between Israel, the Arab nations, and the Palestinians. The current scale includes three items

("I have hope that I will emerge strengthened from the crisis"; "I have hope that my family will emerge strengthened from the current war"; and "I have hope that my country will emerge strengthened from the war in Ukraine"). The response scale ranges from 1 = very little hope to 5 = high hope.

Morale

Morale is based on one item asking "How would you define your morale (mood) these days?" Response rate ranges from 1 = not good at all to 5 = very good.

Well-being

The scale consists of five items concerning individuals' perception of their present lives in various contexts ("What is your life like at present"), such as (1) "My work," (2) "My involvement in things that are happening in the country," (3) "My family relations," (4) "My daily life functioning," and (5) "My life in general." The scale's responses range from $1 = very \ bad$ to 6 = very good.

Sense of danger

The scale is based on the original scale of Solomon and Prager (1992) and consists of five items, ranging from 1 = not at all to 5 = very much, that assess feelings during the last 2 weeks. The five items include: "To what extent do you feel that your life is in danger due to the war in Ukraine"; "To what extent do you feel that your country is in existential danger due to the war in Ukraine"; "To what extent do you think that the lives of your family or your loved ones are in danger due to the war in Ukraine"; "How worried are you about the wave of refugees who have left Ukraine" and "How worried are you that Ukraine/your country will be financially damaged by the war in Ukraine?"

Distress symptoms

The distress symptoms (anxiety and depressive symptoms) contain eight items, based on the original nine items (Derogatis & Kathryn, 2000), ranging from 1 = not at all to 5 = to a very great extent. The eight items include: "To what extent have you recently suffered from" (1) "Nervousness," (2) "Feelings of loneliness," (3) "In a bad mood," (4) "Lack of interest in anything," (5) "Hopelessness about the future," (6) "A feeling of tension," (7) "Lack of calm so that it is impossible to sit in one place," and (8) "A feeling of worthlessness."

Perceived threats

This scale consists of five threats that the respondents are requested to rate as to the extent that they threaten the individual personally at present. The listed risks include (1) economic,

(2) social, (3) security, (4) political, and (5) health, each ranging from 1 = not threatening at all to 5 = threatening to a very great extent. Example of an item: "In the current situation, how would you rate each of the following as threatening you personally? The political threat."

Alpha Cronbach

The alpha Cronbach reliability tests were examined for the eight psychological scales, across the six countries. See Table 2. All scales, across the six countries, presented a high level of alpha Cronbach reliability.

Statistical analysis

Analysis of variance (ANOVA) and post hoc Scheffe test was used to compare the participant countries on the eight research scales: community and societal resilience, three positive coping indicators (hope, well-being, and morale), and three negative coping indicators (distress symptoms, feelings of danger, and threat perception). In addition, path analyses were conducted to identify which of the six coping indicators predicts societal and community resilience in each country. We have used Amos Structural Equation Modeling, where six predictor variables, control for each other (IBM, SPSS, https://www.ibm.com/il-en/marketplace/structural-equation-modeling-sem; Arbuckle, 2011). Maximum likelihood estimates were employed and examined a saturated model, as we did not find any studies that supported an alternative model. Note that in a saturated model, there is no need to examine a model fit as the default and the saturated model are the same (Arbuckle & Wothke, 2004).

RESULTS

The present study faced two main goals. The first goal was to compare the levels of resilience (both community and societal), and the positive and negative coping indicators, among the population of Ukraine and five nearby countries. The second goal was to identify similarities as well as differences in the coping indicators as predictors of community and societal resilience, in the six studied societies.

Results indicated the following (see Table 2): (1) Similarities and differences are observed between the six examined countries on each of the examined psychological variables: community and societal resilience, hope, morale, well-being, sense of danger, distress symptoms, and perceived threats. The largest differences among the countries were found regarding the level of hope. (2) In all examined eight variables, post hoc tests showed at least three significant differences. (3) Most notably, the results show that the Ukrainian sample reported the highest level of societal and community resilience, as well as the highest level of hope, and simultaneously reported the lowest level of well-being, quite a low level of morale, as well as the highest level of two of the three negative coping indicators (sense of danger and distress symptoms), and quite a high level of perceived threats, as compared to the other examined countries. (4) When delving deeper beyond zoomed in differences observed with the Ukrainian sample, with regard to the level of community and societal resilience, Slovakian samples reported the lowest levels,

TABLE 2 Average, alpha Cronbach, standard deviation, analysis of variance, and post hoc Scheffe test, of psychological variables, across six European countries.

Scale	Country (from low to high M)	α	M and Scheffe	SD	F	Effect size Eta ²
Community resilience	Slovakia	.87	2.90 ^a	.70		
(7 items)	Poland	.92	2.98 ^{bc}	.73		
	Lithuania	.90	3.01 ^c	.72	64.65***	.060
	Czech Republic	.88	3.02 ^c	.70		
	Estonia	.90	3.23 ^d	.81		
	Ukraine	.90	$3.40^{\rm e}$.74		
Societal resilience	Slovakia	.90	2.96 ^a	1.08		
(10 items)	Poland	.92	3.28 ^b	1.06	203.59***	.157
	Czech Republic	.90	3.37 ^b	1.07		
	Estonia	.90	3.62 ^c	.91		
	Lithuania	.93	3.73 ^c	1.17		
	Ukraine	.90	4.35 ^d	.97		
Норе	Czech Republic	.91	2.38 ^a	1.03		
(3 items)	Slovakia	.91	2.49 ^a	1.02		
	Poland	.86	2.96 ^c	.80	355.39***	.240
	Lithuania	.89	3.01 ^c	1.01		
	Estonia	.91	3.33 ^d	1.00		
	Ukraine	.91	3.95 ^e	.92		
Morale	Slovakia		2.59 ^a	.95		
(1 item)	Czech Republic		2.67 ^a	.91		
	Ukraine		2.90 ^b	.79	253.09***	.186
	Poland		3.34 ^c	.82		
	Estonia		3.48 ^d	.79		
	Lithuania		3.56 ^d	.82		
Well-being	Ukraine	.83	3.56 ^a	.92		
(5 items)	Poland	.87	4.10 ^b	.85		
	Estonia	.83	4.16 ^{bc}	.89	122.48***	.103
	Slovakia	.83	4.26 ^c	.98		
	Lithuania	.85	4.41 ^d	.85		
	Czech Republic	.83	4.42 ^d	.91		
Sense of danger (5 items)	Estonia	.84	2.49 ^a	.85		
	Poland	.85	2.63 ^b	.88		
	Lithuania	.83	2.92 ^c	.86	231.35***	.158
	Czech Republic	.84	3.12 ^d	.96		
	Slovakia	.86	3.13 ^d	1.01		
	Ukraine	.84	3.70 ^e	.77		

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Scale	Country (from low to high M)	α	M and Scheffe	SD	F	Effect size Eta ²
Stress symptoms	Lithuania	.93	2.01 ^a	.87		
(8 items)	Estonia	.93	2.07 ^a	.82		
	Czech Republic	.91	2.32 ^b	.91		
	Slovakia	.92	2.50 ^c	.96	160.68***	.115
	Poland	.94	2.65 ^d	.94		
	Ukraine	.93	2.95 ^e	.88		
Perceived threats	Estonia	.86	2.39 ^a	.88		
(5 items)	Lithuania	.93	2.90 ^b	.94		
	Czech Republic	.83	3.08 ^c	.87		
	Ukraine	.86	3.29 ^d	.84	182.21***	.129
	Slovakia	.86	3.32 ^d	.88		
	Poland	.84	3.35 ^d	.78		

^{a,b,c,d,e}Scheffe post hoc test.

followed by Poland in both, with Ukraine exhibiting the highest levels. (5) With regard to hope, the Czech sample reported the lowest level of hope, followed by Slovakian sample, as compared to the highest levels observed in the Ukrainian sample. (6) Lithuanian respondents reported the highest level of morale, while the Slovakian respondents reported the lowest one, compared with the rest of the countries. (7) The Czech Republic and Lithuanian samples reported the highest level of well-being, with the Ukrainian sample reporting the lowest. (8) Levels of sense of danger were highest among the Ukrainian respondents, while the Estonian respondents reported the lowest one, compared with the other countries. (8) The Ukrainian respondents reported the highest level of distress symptoms, while the Lithuanian and Estonian respondents reported the lowest ones, compared with the other countries. (9) The Estonian sample reported the lowest level of perceived threats, while Poland reported the highest levels compared with the other countries.

In addition, our results indicate that there are significant differences among the participant countries regarding demographic characteristics (Table 1).

To examine our second research question, we calculated six path analyses to examine the prediction of six coping indicators, predicting societal and community resilience (see Table 3 and Figure 1). Results of path analysis indicated the following: (1) The best single predictor of community and societal resilience, across the six countries, is the level of hope. It is also the most uniform predictor of the two types of resilience. (2) The second best predictor of community and societal resilience is perceived threats, which significantly predicts both community and societal resilience, across all six countries. (3) The six predictors, across the six countries, explained 20%–24% of community resilience variability regarding community resilience, to 26%–34% of societal resilience variability. (4) Czech Republic, Lithuania, and Slovakia are the countries in which the largest percentage of community resilience variability (24%) is explained, while the Czech Republic is the country in which the largest percentage of societal resilience is explained (39%).

^{***}p < .001.

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TABLE 3 Path analysis: Standardized coefficients of six path analyses of positive and negative coping indicators, predicting community and societal resilience, across six countries.

Poland .23*** .34*** Estonia .31*** .47*** Czech Republic .21*** .38*** Lithuania .34*** .48*** Slovakia .25*** .27*** Morale	Predictor	Country	Community resilience	Societal resilience
Estonia .31*** .47*** Czech Republic .21*** .38*** Lithuania .34*** .48** Slovakia .25*** .27*** Morale Ukraine .07** .04 Poland .11** .08* Estonia .07 .04 Czech Republic .18*** .16*** Lithuania .02 .03 Slovakia .13** .07* Well-being Ukraine .16*** .08** Poland .27*** .14*** Estonia .18** .08 Czech Republic .16** .08 Estonia .18** .08 Czech Republic .16** .00 Lithuania .48*** .14*** Slovakia .23*** .01 Sense of danger Ukraine .07*** .14** Poland .06*** .18** Estonia .07 .14 Czech Republic .09* .04 Lithuania .02 .04 Slovakia .09* .06 Stress symptoms Ukraine .00* .00* Poland .13*** .09* Estonia .00 .00* Stress symptoms Ukraine .00 .00* Lithuania .02 .01 Poland .13*** .09* Estonia .00 .00* Poland .13*** .09* Estonia .00 .00* Estonia .00 .00* Czech Republic .10* .006 Lithuania .13*** .009* Estonia .00 .00* Poland .13*** .009* Estonia .00 .00* Perceived threats Ukraine .16** .24** Poland .10** .009* Perceived threats Ukraine .16** .24** Poland .10** .27** Estonia .04 .27**	Норе	Ukraine	.31***	.47***
Czech Republic 21*** .38*** Lithuania .34*** .48*** Slovakia .25*** .27*** Morale		Poland	.23***	.34***
Lithuania		Estonia	.31***	.47***
Slovakia .25*** .27*** .27*** .04		Czech Republic	.21***	.38***
Morale Ukraine .07* .04 Poland .11* .08* Estonia .07 .04 Czech Republic .18*** .16*** Lithuania .02 .03 Slovakia .13** .07* Well-being Ukraine .16*** .08*** Poland .27*** .14*** Estonia .18** .08 Czech Republic .16** .08 Estonia .18** .08 Czech Republic .16** .08 Czech Republic .16** .00 Lithuania .48** .14*** Slovakia .23** .01 Sense of danger Ukraine .07** .14** Poland .06** .18*** Estonia .07 .14 Czech Republic .09* .04 Lithuania .02 .04 Slovakia .09* .06 Stress symptoms Ukraine .02 .01 Poland .13*** .09* Estonia .02 .01 Czech Republic .10* .09* Estonia .04 .09* Perceived threats Ukraine .16** .24*** Poland .10** .09* Perceived threats .24***		Lithuania	.34***	.48***
Poland .11* .08*		Slovakia	.25***	.27***
Estonia .07 .04 Czech Republic .18*** .16*** Lithuania .02 .03 Slovakia .13** .07* Well-being Ukraine .16*** .08*** Poland .27*** .14*** Estonia .18** .08 Czech Republic .16*** .08 Czech Republic .16*** .02 Lithuania .48*** .14*** Slovakia .23*** .01 Sense of danger Ukraine .07*** .14*** Poland .06** .18*** Estonia .07 .14 Czech Republic .09* .04 Lithuania .02 .04 Slovakia .09* .06 Stress symptoms Ukraine .09 .09 Estonia .02 .01 Poland .13*** .09* Estonia .02 .01 Poland .13*** .09* Estonia .02 .01 Czech Republic .10* .09* Estonia .02 .01 Czech Republic .10* .09* Estonia .02 .01 Czech Republic .10* .09* Estonia .02 .01 Poland .13*** .09** Slovakia .04 .09* Perceived threats Ukraine .16*** .24*** Poland .10*** .27*** Perceived threats Ukraine .16*** .24***	Morale	Ukraine	.07*	.04
Czech Republic 18*** 16*** Lithuania .02 .03 Slovakia .13** .07* Well-being Ukraine .16*** .08*** Poland .27*** .14*** Estonia .18** .08 Czech Republic .16*** .02 Lithuania .48*** .14*** Slovakia .23*** .01 Sense of danger Ukraine .07*** .14*** Poland .06*** .18*** Estonia .07 .14 Czech Republic .09* .04 Lithuania .02 .04 Slovakia .09* .06 Stress symptoms Ukraine .02 .01 Poland .13*** .09* Estonia .02 .01 Poland .13*** .09* Estonia .02 .01 Czech Republic .10* .06 Lithuania .13*** .09** Slovakia .04 .09** Perceived threats Ukraine .16*** .24*** Poland .10** .27*** Estonia .10*** .27*** Estonia .10*** .27*** Estonia .16*** .24***		Poland	.11*	.08*
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Slovakia .13** .07*		Czech Republic	.18***	.16***
Well-being Ukraine		Lithuania	.02	.03
Poland .27***		Slovakia	.13**	.07*
Estonia .18** .08 Czech Republic .16*** .02 Lithuania .48*** .14*** Slovakia .23*** .01 Sense of danger Ukraine .07*** .14*** Poland .06*** .18*** Estonia .07 .14 Czech Republic .09* .04 Lithuania .02 .04 Slovakia .09* .06 Stress symptoms Ukraine .02 .01 Poland .13*** .09* Estonia .02 .01 Czech Republic .10* .09* Estonia .02 .01 Czech Republic .10* .09* Estonia .02 .01 Czech Republic .10* .09* Poland .13*** .09* Estonia .02 .01 Czech Republic .10* .09* Slovakia .04 .09* Perceived threats Ukraine .16*** .24*** Poland .10*** .22*** Estonia .10** .22***	Well-being	Ukraine	.16***	.08***
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Lithuania .48*** .14*** Slovakia .23***01 Sense of danger Ukraine .07*** .14*** Poland .06*** .18*** Estonia .07 .14 Czech Republic09*04 Lithuania .02 .04 Slovakia09*06 Stress symptoms Ukraine .02 .01 Poland .13*** .09* Estonia .02 .01 Czech Republic .10*06 Lithuania .13*** .09** Perceived threats Ukraine16***24*** Poland10***27*** Estonia10***24***		Estonia	.18**	.08
Slovakia .23*** 01		Czech Republic	.16***	02
Sense of danger Ukraine .07*** .14*** Poland .06*** .18*** Estonia .07 .14 Czech Republic 09* 04 Lithuania .02 .04 Slovakia 09* 06 Stress symptoms Ukraine .02 .01 Poland .13*** .09* Estonia .02 .01 Czech Republic .10* 06 Lithuania .13*** .09** Slovakia .04 09* Perceived threats Ukraine 16*** 24*** Poland 10*** 27*** Estonia 16*** 24***		Lithuania	.48***	.14***
Poland .06*** .18*** Estonia .07 .14 Czech Republic .09* .04 Lithuania .02 .04 Slovakia .09* .06 Stress symptoms Ukraine .02 .01 Poland .13*** .09* Estonia .02 .01 Czech Republic .10* .06 Lithuania .13*** .09** Slovakia .04 .09* Perceived threats Ukraine .16*** .24*** Poland .10** .24***		Slovakia	.23***	01
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Slovakia		Czech Republic	09*	04
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		Poland		2 7***
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125 125		Czech Republic	20***	23***
Lithuania15***24***		Lithuania		24***
Slovakia12***33***		Slovakia	12***	33***

(Continues)

TABLE 3 (Continued)

Predictor	Country	Community resilience	Societal resilience
Explained variance (R ²)	Ukraine	20%	34%
	Poland	20%	29%
	Estonia	20%	34%
	Czech Republic	24%	39%
	Lithuania	24%	33%
	Slovakia	24%	26%

^{*}p < .05, **p < .01, and ***p < .001.

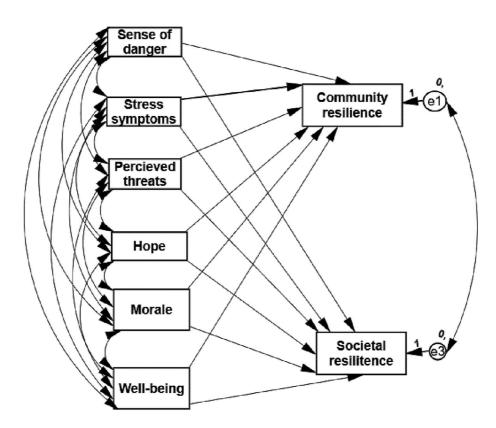


FIGURE 1 Example of path analysis model.

DISCUSSION

The results of this study demonstrate several interesting findings. When comparing all the participating study countries, Ukrainians reported the highest level of community and societal resilience and hope, while at the same time they also reported the highest level of distress symptoms and sense of danger, as well as the lowest level of well-being and a quite low level of morale. Societal resilience has been recognized as a complex phenomenon that rests on varied elements of coping abilities and societal cohesion (Obrist et al., 2010). Previous findings have

indicated that societal resilience is positively correlated with a sense of coherence and wellbeing, while negative correlations have been found between psychological distress and exposure to security adversities (Kimhi & Eshel, 2016; Marciano et al., 2020). While it has been acknowledged that resilience is context specific (Ballada et al., 2022), in contrast to previous conclusions, Ukrainians in the current study exhibited high levels of negative coping indicators (distress), a sense of danger, and the lowest levels of well-being, while at the same time they were also displaying the highest levels of resilience and hope. These findings indicate a possible uniqueness to the current crisis, where the circumstances function as a transformative force for the Ukrainian people—a sort of "awakening" for Ukrainian nationhood. Given the deep disruption to the Ukrainian society since the initiation of the war, the existential threat created a momentum of the public determination to be architects of their free future (Malksoo, 2022). This has strengthened solidarity and societal cohesion by defining a unified center of gravity throughout the crisis-national sovereignty, from which the high level of societal resilience may stem (Kuzio, 2022). Similar to previous findings from regions experiencing prolonged conflicts, high levels of community resilience were found to coexist with high levels of distress among the population in Southern Israel (Shapira, 2022; Shapira et al., 2020).

Furthermore, the results of the current study reproduce the findings of previous studies concerning the importance of hope. For example, according to Snyder et al. (1996), hope was defined as "a positive motivational state that is based on an interactively derived sense of successful of (a) agency (goal-directed energy) and of (b) pathways planning to meet goals" (p. 287). Others concluded that hope is particularly suited for explaining and promoting positive coping with adversities (Germann et al., 2015). A new study (Marciano et al., 2022) concluded that hope is a better and more consistent coping indicator, compared with the fear of threats. The findings of the current study that in all countries examined, hope was found to be of great importance as an indicator for successful coping strengthen the idea of the centrality of this psychological factor in dealing with adversities.

Despite the high community and societal resilience, as well as the high level of hope among the Ukrainian sample, the coexisting high levels of sense of danger and distress symptoms may reflect the influence of the reality on the ground. Russia has indiscriminately bombarded residential communities, crippled infrastructure, hospitals, and schools and generated extreme shortages of food and water, as well as (both internal and external) mass displacement (Kizub et al., 2022). Entire communities have been exposed to the risk of violence, injuries, and deaths (both among civilians and combatants). While practically, Ukrainians entered a state of conflict in 2014, the ongoing situation with the current offenses may result in a lingering sense of danger among the public, which according to Scott et al. (2013) may have a long-term detriment to postwar resilience.

The findings from the five countries situated nearby to Ukraine may reflect differences in the history of their territorial conflicts, political spheres, geopolitical backgrounds, and sociocultural aspects of the society of each country. For example, Estonia reported the lowest level of sense of danger, while Lithuania reported the lowest levels of perceived threats, potentially resulting from the backdrop of their North Atlantic Treaty Organization (NATO) membership. NATO membership inherently serves as a deterrence mechanism against existential threats (Prior, 2018). Furthermore, well-being metrics previously documented in the OECD align with the findings of the study where among the countries studied, the Czech Republic scored highest on the well-being metric (Czech Republic OECD). Understanding the context-specific, timedependent roots of coping and their connection to varying levels of resilience merits further research.

1758/0854, 2024. 3, Downloaded from https://inap-journals.onlineibrary.wiley.com/doi/10.1111/aphw.12466 by Vinius University, Wiley Online Library on [21/08/2024]. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) on Wiley Online Library or 12/08/2024. See the Terms and Conditions (https://onlineibrary.wiley.com/emr-and-conditions) o

The disciplines of economics and political science have extensively examined the short- and long-term consequences of war, offering valuable insights into its repercussions. This study's focus aims to contribute to an additional critical dimension of war's impact and explore its significance in addressing the challenges faced by affected societies. By engaging the current study findings with the existing literature, a foundation for interdisciplinary dialogue and collaborative efforts is defined to address the multifaceted challenges and dynamics posed by both the present and future armed conflicts.

Limitations of the study

The limitations of the study offer several opportunities for future research. First and foremost, the cross-sectional nature of this study provides only a snapshot of the context and does not examine time-dependent developments of resilience and coping. Thus, it is not possible to determine causal effects but rather only associations between variables. Second, data were unable to be collected from some of the territories that were hit hardest in Ukraine, including Donetsk, and Lugansk regions that were occupied by Russia. In addition, although the Internet panels were instructed to achieve representative samples according to demographic characteristics published in the National Bureaus of Statistics (including geographic distribution of sampled participants) of each respective country, demographic deviations among the collected samples must be considered with regard to the interpretation of the study conclusions (see Appendix A). Third, the current study relied on quantitative data. Future studies may utilize mixed method designs that include both quantitative and qualitative approaches to better understand how each country handles crises such as the current war. As in all studies based on questionnaires, social desirability bias cannot be ruled out. Finally, the current study is based on a correlational study, which does not allow to conclude causality. Nonetheless, the findings of the present research provide meaningful insights that could be used in developing policies that enhance the capacity of different societies to effectively respond to ongoing crises and future calamities by better understanding facets of resilience and coping.

CONCLUSIONS

Positive coping indicators, most notably hope, but also perceived well-being are instrumental in building resilience. While building resilience on a societal level is a complex, multifaceted task, various dimensions must be considered when planning actions to support these (and additional) states. Given the current geopolitical environment, building a regional network for exchange and capacity building of communities may allow for resilience to transcend national and societal borders. Such exchange could assist in withstanding and recovering from both internal and external crises, ultimately further promoting resilient response on the global community scale. In parallel, mental health practitioners at the local level should develop and establish different support channels aimed at fostering hope amidst the ongoing conflict while providing community members with a platform to express concerns. Community leaders can utilize the present findings to streamline local endeavors to strengthen the resilience of their residents. Lastly, it is essential to understand and monitor the levels of resilience over time, during and following the resolution of the current crisis, both in Ukraine and in the neighboring countries.

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ACKNOWLEDGEMENTS

K. Kaniasty's contributions to this study were supported by the Polish National Science Centre OPUS-19 grant (2020/37/B/HS6/02). The Czech participation on the output was supported by the NPO "Systemic Risk Institute" number LX22NPO5101, funded by European Union NextGeneration EU (Ministry of Education, Youth and Sports, NPO: EXCELES).

CONFLICT OF INTEREST STATEMENT

No conflicts of interest declared by all authors.

DATA AVAILABILITY STATEMENT

Due to ethical considerations, the data is not uploaded in a public repository. Analyzed data is available upon reasonable request from the authors.

ETHICS STATEMENT

The study was approved by the Ethics Committee of Tel Aviv University, # 0005146-1 from July 12, 2022, and all the participants signed an informed consent form prior to their participation. The above is written in the Methods section, in the sub-section of Data collection.

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REFERENCES

Anghel, V., & Jones, E. (2022). Is Europe really forged through a crisis? Pandemic EU and the Russia-Ukraine war. Journal of European Public Policy, 1-21.

Arbuckle, J. L. (2011). IBM SPSS Amos 20 user's guide. Amos Development Corporation, SPSS Inc., 226-229.

Arbuckle, J. L., & Wothke, W. (2004). Amos 4.0 Users Guide, 1999. Kline Rex B., Principles and Practice of Structural Equation Modeling, NY, London.

- Aydın, M., Şiriner, İ., & Koç, Ş. A. (2022). Russia's invasion of Ukraine: The first seven months. Global Agenda in Social Sciences: Global Studies, 9, 417.
- Ballada, C. J. A., Aruta, J. J. B. R., Callueng, C. M., Antazo, B. G., Kimhi, S., Reinert, M., Eshel, Y., Marciano, H., Adini, B., da Silva, J. D., & Verdu, F. C. (2022). Bouncing back from COVID-19: Individual and ecological factors influence national resilience in adults from Israel, the Philippines, and Brazil. Journal of Community & Applied Social Psychology, 32(3), 452–475. https://doi.org/10.1002/casp.2569
- Bürgin, D., Anagnostopoulos, D., Vitiello, B., Sukale, T., Schmid, M., & Fegert, J. M. (2022). Impact of war and forced displacement on children's mental health-multilevel, needs-oriented, and trauma-informed approaches. European Child & Adolescent Psychiatry, 31(6), 845-853.
- Cockbain, E., & Sidebottom, A. (2022). War, displacement, and human trafficking and exploitation: Findings from an evidence-gathering roundtable in response to the war in Ukraine. Journal of Human Trafficking, 1-29. https://doi.org/10.1080/23322705.2022.2128242
- Cullen, W., Gulati, G., & Kelly, B. D. (2020). Mental health in the COVID-19 pandemic. QIM: An International Journal of Medicine, 113(5), 311-312. https://doi.org/10.1093/qjmed/hcaa110
- Derogatis, L. R., & Kathryn, L. (2000). The SCL-90-R and brief symptom inventory (BSI) in primary care. In Handbook of psychological assessment in primary care settings (pp. 310-347). Routledge.
- Eshel Y., Kimhi, S., Marciano, H., Adini, B., (2023). Predictors of PTSD and psychological distress symptoms of Ukraine civilians during war. Disaster Medicine Public Health Preparedness. Accepted for publication.
- Flockhart, T., & Korosteleva, E. A. (2022). War in Ukraine: Putin and the multi-order world. Contemporary Security Policy, 43(3), 466–481. https://doi.org/10.1080/13523260.2022.2091591
- Germann, J. N., Leonard, D., Stuenzi, T. J., Pop, R. B., Stewart, S. M., & Leavey, P. J. (2015). Hoping is coping: A guiding theoretical framework for promoting coping and adjustment following a pediatric cancer diagnosis. Journal of Pediatric Psychology, 40(9), 846–855. https://doi.org/10.1093/jpepsy/jsv027
- Hang, N. K., Trang, L. T., Huong, H. T., Huong, N. T., Khoi, N. D., Nguyen, M., & Le, K. (2021). The Long-run effects of war: A literature review. https://doi.org/10.31219/osf.io/kg39r
- Hellegers, P. (2022). Food security vulnerability due to trade dependencies on Russia and Ukraine. Food Security, 14(6), 1503-1510.
- Jarymowicz, M., & Bar-Tal, D. (2006). The dominance of fear over hope in the life of individuals and collectives. Europian Journal of Social Psychology, 36, 367–392. https://doi.org/10.1002/ejsp.302
- Johnson, R. J., Antonaccio, O., Botchkovar, E., & Hobfoll, S. E. (2022). War trauma and PTSD in Ukraine's civilian population: Comparing urban-dwelling to internally displaced persons. Social Psychiatry and Psychiatric Epidemiology, 57(9), 1807–1816. https://doi.org/10.1007/s00127-021-02176-9
- Kimhi, S. (2016). Levels of resilience: Associations among individual, community, and national resilience. Journal of Health Psychology, 21(2), 164-170. https://doi.org/10.1177/1359105314524009
- Kimhi, S., & Eshel, Y. (2016). Demographic characteristics and sense of danger predicting a new measure of individual resilience following a war. Journal of Community Medicine Health Education, 6(5), 472-480.
- Kimhi, S., & Eshel, Y. (2019). Measuring national resilience: A new short version of the scale (NR-13). Journal of Community Resilience., 47(3), 517-528. https://doi.org/10.1002/jcop.22135
- Kimhi, S., Eshel, Y., Adini, B., Aruta, J. J. B. R., Antazo, B. G., Briones-Diato, A., Reinert, M., da Silva, J. D., Verdu, F. C., & Marciano, H. (2021). Distress and resilience in days of COVID-19: International study of samples from Israel, Brazil, and the Philippines. Cross-Cultural Research, 55(5), 415-437. https://doi.org/10. 1177/10693971211026806
- Kimhi, S., Eshel, Y., Marciano, H., & Adini, B. (2020). A renewed outbreak of the COVID-19 pandemic: A longitudinal study of distress, resilience, and subjective well-being. International Journal of Environmental Research and Public Health, 17(21), 7743. https://doi.org/10.3390/ijerph17217743
- Kimhi, S., Eshel, Y., Marciano, H., & Adini, B. (2023). Impact of the war in Ukraine on resilience, protective, and vulnerability factors. Frontiers in Public Health, 11. https://doi.org/10.3389/fpubh.2023.1053940
- Kizub, D., Melnitchouk, N., Beznosenko, A., Shabat, G., Semeniv, S., Nogueira, L., Watson, P. J., Berg, K., Trapido, E. J., Espinel, Z., & Shultz, J. M. (2022). Resilience and perseverance under siege: Providing cancer care during the invasion of Ukraine. The Lancet Oncology, 23(5), 579–583.
- Kruglanski, A. W., Molinario, E., & Lemay, E. P. (2021). Coping with COVID-19-induced threats to self. Group Processes & Intergroup Relations, 24, 284-289. https://doi.org/10.1177/1368430220982074



- Kurapov, A., Pavlenko, V., Drozdov, A., Bezliudna, V., Reznik, A., & Isralowitz, R. (2022). Toward an understanding of the Russian-Ukrainian war impact on university students and personnel. *Journal of Loss and Trauma*, 1–8.
- Kuzio, T. (2022). Russia's self-defeating invasion: Why Vladimir Putin has lost Ukraine forever. Retrieved May 9, 2022, from: https://www.atlanticcouncil.org/blogs/ukrainealert/russias-self-defeating-invasion-why-vladimir-putin-has-lost-ukraine-forever/
- Leykin, D., Lahad, M., Cohen, O., Goldberg, A., & Aharonson-Daniel, L. (2013). Conjoint community resiliency assessment measure-28/10 items (CCRAM28 & CCRAM10): A self-report tool for assessing community resilience. American Journal of Community Psychology, 52, 313–323. https://doi.org/10.1007/s10464-013-9596-0
- Liadze, I., Macchiarelli, C., Mortimer-Lee, P., & Juanino, P. S. (2022). The economic costs of the Russia-Ukraine conflict.
- Lim, W. M., Chin, M. W. C., Ee, Y. S., Fung, C. Y., Giang, C. S., Heng, K. S., Kong, M. L. F., Lim, A. S. S., Lim, B. C. Y., Lim, R. T. H., Lim, T. Y., Ling, C. C., Mandrinos, S., Nwobodo, S., Phang, C. S. C., She, L., Sim, C. H., Su, S. I., Wee, G. W. E., & Weissmann, M. A. (2022). What is at stake in a war? A prospective evaluation of Ukraine and Russia conflict for business and society. Global Business and Organizational Excellence, 41(6), 23–36. https://doi.org/10.1002/joe.22162
- Malksoo, M. (2022). The postcolonial moment in Russia's war against Ukraine. *Journal of Genocide Research*, 1–11. https://doi.org/10.1080/14623528.2022.2074947
- Marciano, H., Eshel, Y., Kimhi, S., & Adini, B. (2022). Hope and fear of threats as predictors of coping with two major adversities, the COVID-19 pandemic, and an armed conflict. *International Journal of Environmental Research and Public Health*, 19(3), 1123. https://doi.org/10.3390/ijerph19031123
- Marciano, H., Kimhi, S., & Eshel, Y. (2020). Predictors of individual, community and national resiliencies of Israeli Jews and Arabs. *International Journal of Psychology*, 55(4), 553–561. https://doi.org/10.1002/ijop. 12636
- Medvedev, O. N., & Landhuis, C. E. (2018). Exploring constructs of well-being, happiness, and quality of life. *Peer Journal*, 6, e4903. https://doi.org/10.7717/peerj.4903
- Métais, C., Burel, N., Gillham, J. E., Tarquinio, C., & Martin-Krumm, C. (2022). An integrative review of the recent literature on human resilience: From concepts, theories, and discussions towards a complex understanding. *Europe's Journal of Psychology*, 18(1), 98–119. https://doi.org/10.5964/ejop.2251
- Morales-Rodríguez, F. M., Martínez-Ramón, J. P., Méndez, I., & Ruiz-Esteban, C. (2021). Stress, coping, and resilience before and after COVID-19: A predictive model based on artificial intelligence in the university environment. *Frontiers in Psychology*, 12, 647964. https://doi.org/10.3389/fpsyg.2021.647964
- Obrist, B., Pfeiffer, C., & Henley, R. (2010). Multi-layered social resilience: A new approach in mitigation research. *Progress in Development Studies*, 10(4), 283–293. https://doi.org/10.1177/146499340901000402
- Ozili, P. K. (2022). Global economic consequence of Russian invasion of Ukraine. Available at SSRN.
- Prior, T. (2018). Resilience: The 'fifth wave' in the evolution of deterrence. In *Strategic trends 2018* (pp. 63–80). Center for Security Studies (CSS).
- Scott, S. B., Poulin, M. J., & Silver, R. C. (2013). A lifespan perspective on terrorism: Age differences in trajectories of response to 9/11. Developmental Psychology, 49(5), 986–998. https://doi.org/10.1037/a0028916
- Shaban, O. S., Al-Zubi, Z., Ali, N., & Alqotaish, A. (2017). The effect of low morale and motivation on employees' productivity & competitiveness in Jordanian industrial companies. *International Business Research*, 10(7), 1–7. https://doi.org/10.5539/ibr.v10n7p1
- Shapira, S. (2022). Trajectories of community resilience over a multi-crisis period: A repeated cross-sectional study among small rural communities in Southern Israel. *International Journal of Disaster Risk Reduction*, 15(76), 103006. https://doi.org/10.1016/j.ijdrr.2022.103006
- Shapira, S., Cohen, O., & Aharonson-Daniel, L. (2020). The contribution of personal and place-related attributes to the resilience of conflict-affected communities. *Journal of Environmental Psychology*, 72, 101520. https://doi.org/10.1016/j.jenvp.2020.101520
- Sheather, J. (2022). As Russian troops cross into Ukraine, we need to remind ourselves of the impact of war on health. BMJ, 376.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an

- individual-differences measure of hope. Journal of Personality and Social Psychology, 60, 570-585. https:// doi.org/10.1037/0022-3514.60.4.570
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the state hope scale. Journal of Personality and Social Psychology, 70(2), 321-335. https:// doi.org/10.1037/0022-3514.70.2.321
- Solomon, Z., & Prager, E. (1992). Elderly Israeli Holocaust survivors during the Persian Gulf War: A study of psychological distress. The American Journal of Psychiatry, 149(12), 1707-1710. https://doi.org/10.1176/ajp.149. 12.1707
- Statistics Division, United Nations. (n.d.). Demographic and social statistics. https://unstats.un.org/unsd/ demographic-social/products/vitstats/index.cshtml
- Tampubolon, M. (2022). Russia's invasion of Ukraine and its impact on global geopolitics. ESJ Humanities, 18(20), 48-70. https://doi.org/10.19044/esj.2022.v18n20p48
- Teperik, D. (2022). Attitudes to survive the war: On Ukraine's resistance and national resilience. The Riga Conhttps://rigaconference.lv/wp-content/uploads/2022/10/LATO-WEB_Broshura_1_ ference Policy Brief. 2022.pdf
- Teperik, D., Miroshkin, I., Iliuk, O., Apetyk, A., Snihur, L., Senkiv, G., Dubov, D., & Pokalchuk, O. (2021). Resilient Ukraine - a delicate nosaic? Society, Media, Security, and Future Prospects. Research report. Tallinn, Estonia: International Centre for Defence and Security, ISBN 978-9916-9699-3-9 (pdf), https://icds.ee/en/ resilient-ukraine-a-delicate-mosaic-society-media-security-and-future-prospects
- UNHCR. (2022). Refugees fleeing Ukraine. Technical report. https://data2.unhcr.org/en/situations/ukraine World Population Prospects - Population Division - United Nations. (n.d.). World population prospects - population division - United Nations. https://population.un.org/wpp/

How to cite this article: Kimhi, S., Kaim, A., Bankauskaite, D., Baran, M., Baran, T., Eshel, Y., Dumbadze, S., Gabashvili, M., Kaniasty, K., Koubova, A., Marciano, H., Matkeviciene, R., Teperik, D., & Adini, B. (2024). A full-scale Russian invasion of Ukraine in 2022: Resilience and coping within and beyond Ukraine. Applied Psychology: Health and Well-Being, 16(3), 1005–1023. https://doi.org/10.1111/aphw.12466

APPENDIX A: DEMOGRAPHIC CHARACTERISTICS OF SAMPLES AS COMPARED TO NATIONAL CENTRAL BUREAU OF STATISTICS PUBLISHED DATA

Demographic characteristics	Country	Study sample	National data
Age (median)	Ukraine	37	41.2
	Lithuania	39	44.5
	Poland	47	41.9
	Slovakia	46	41.8
	Czech Republic	49	43.3
	Estonia	48	43.7
Gender (% males in population)	Ukraine	49%	46.3%
	Lithuania	40%	46.9%
	Poland	48%	48.4%
	Slovakia	49%	48.8%
	Czech Republic	49%	49.2%
	Estonia	53%	47.4%

Note: National data were retrieved from published data from the United Nations Population Division for median age from 2021 (World Population Prospects – Population Division – United Nations, n.d.) and gender distribution from the United Nations Population and Vital Statistics Report (Statistics Division, United Nations, n.d.).