

## **Community and National Resilience and Quality of Life: A Preliminary Cross-Cultural Study**

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### **Abstract**

*The present paper presents a preliminary cross-cultural study examining perceived community and national resilience, as well as resilience promoting and risk factors. The study included student samples from five countries: Australia, Germany, Great Britain, Israel and Greece (N=1022). Results indicated the following: (a) National and community resilience significantly and positively correlated with the Human Development Index (HDI) for the whole sample. (c) National and community resilience, well-being, sense of danger and distress symptoms differ significantly among the five countries (d) Path analysis revealed that HDI significantly mediated the association between the three predictors and national and community resilience.*

**Keyword:** national resilience, community resilience, Human Development Index, well-being, sense of danger, distress symptoms, cross-cultural.

**Word count:** 5,528

### **1. Introduction**

Does the international index for quality of life associate with resilience? Do resilience promoting and risk factors differ across students from different countries? These questions are the focuses of the current cross-cultural research. We examine perceived community and national resilience, as well as promoting and risk resilience factors among students from five different countries: Australia, Germany, Great Britain, Israel and Greece.

Participants were requested to complete an identical questionnaire (translated back and forth into the native languages of Israel and Greece, while presented in English to Australian, British and German participants). To the best of our knowledge, such a study has not previously been attempted. Accordingly, we see the current study as preliminary. A review of the professional literature has indicated that there are many approaches to resilience (with different definitions), among them, behavioral sciences, sociology and political sciences (e.g., Sapountzaki, 2014). For example, Rutter defined human resilience as “protective factors which modify, ameliorate or alter a person’s response to some environmental hazard that predisposes to a maladaptive outcome” (Rutter, 1987, p. 316; 2006). Other researchers have defined psychological resilience as people's ability to withstand stress and adversity (Ajdukovic, Kimhi, & Lahad, 2015; Hobfoll et al., 2009).

Bonanno, Galea, Bucciarelli, and Vlahov (2007) have claimed that it is essential to differentiate between predictors and indicators of resilience: (a) *Resilience indicators* are measures taken *after* the occurrence of a potentially traumatic event (PTE). Resilience indicators include variables pertaining to people's return to their everyday lives, as well as demonstrating similar levels of stress symptoms before and after the PTE. Resilience indicators include variables pertaining to prominent aspects of life: family life, job or school, leisure time, social life, health, mood and level of stress symptoms. (b) *Predictors of resilience* (or perceived resilience) are measures of resilience taken *before* the harsh event has taken place in order to predict people's ability to withstand PTE in the future, or to create baseline data. The current study examines predictors of national and community resilience.

### **1.1 Community resilience**

Cacioppo, Reis and Zautra (2011) defined social resilience as "the capacity to foster, engage in, and sustain positive relationships and to endure and recover from life stressors and social isolation" (p. 44). Community resilience expresses the interaction between individuals and their community and pertains to the ability of the individual to get help from his/her community, and the ability of the community to help individuals and provide solutions for their needs (Norris et al., 2008). In the current study, we have used the conjoint community resilience assessment measure (CCRAM) which provides a standard measure of community resilience including five factors: leadership, collective efficacy, preparedness, place attachment and social trust (Cohen et al., 2016).

### **1.2 National resilience**

Several researchers have referred to resilience as a wider societal phenomenon, and have conceptualized it in terms of national resilience (Chemtob, 2005) or social resilience (Cacioppo, et al., 2011). The concept of national or social resilience is a broad one, addressing the issue of society's sustainability and strength in several diverse realms (Obrist et al., 2010). Based on a number of studies exploring national resilience, four main social components have been attributed to national resilience (Kimhi et al., 2017): patriotism, optimism, social integration, and trust in political and public institutions. These authors reasoned that, in a time of intractable conflict, members of a resilient society would display enduring stability in maintaining these components. Based on the above we expected that community and national resilience would be significantly and positively correlated and this would be observed across the five countries.

### **1.3 Resilience promoting and risk factors**

Earlier studies have indicated that resilience promoting and risk factors have significantly predicted measures of resilience (Eshel & Kimhi, 2016). The current study will investigate two resilience promoting factors (subjective well-being and country Human Development Index, HDI), as well as two resilience risk factors (sense of danger and distress symptoms).

### **1.4 Well-being.**

Well-being pertains to evaluating quality of life as satisfying and fulfilling (Krauze, 2007). It is positively linked to indicators of health, such as fewer physical symptoms, and better coping with illness (Lyubomirsky et al., 2005). It is also negatively affected by adversities such as discrimination (Schmitt et al., 2014) or immigration (Searle & Ward 1990). A recent study shows that well-being positively predicts individual resilience (Eshel & Kimhi, 2016). We hypothesize therefore, that subjective well-being will be positively associated with community and national resilience.

### **1.5 Human Development Index.**

One way to compare quality of life among countries is the Human Development Index (HDI), which is an objective estimation of a country’s quality of life.

This scale is a composite statistic of life expectancy, education and income per capita indicators (Human Development Index, 2016), and 188 countries are included in the ranking. The five countries included in our study are all on the upper level of the HDI list: Australia (second place), Germany (sixth place), Great Britain (fourteenth place), Israel (eighteenth place) and Greece (twenty-ninth place). Based on earlier studies of self-reported well-being (Eshel & Kimhi, 2016; Kimhi et al., 2017), we hypothesized that the higher the country's level of HDI, the higher community and national resilience would be reported. Furthermore, based on the fact that HDI is an objective measure and reflects central diverse areas of the life of a country, we hypothesized that it would mediate the associations between subjective well-being, sense of danger, distress symptoms, and national and community resilience for the whole sample.

### **1.6 Distress symptoms.**

War and terror attacks are highly painful events which shake people's basic sense of security and give rise to distress symptoms (Galea et al., 2002). These symptoms include delayed emotional and behavioral problems, posttraumatic stress disorders (PTSD), depression, anxiety and grief (Hadi, Llabre, & Spitzer, 2006). We hypothesized that level of distress symptoms would be negatively correlated with the individual, community and national resilience scales across the five countries.

### **1.7 Sense of danger**

A lingering sense of danger, which may decrease individual resilience, plays a major role in post-war adaptation. Lazarus and Folkman (1984) claim that perceived post-adversity distress and assessment of stress resistant resources reflect cognitive appraisals. Sense of danger, which is a negative cognitive appraisal, mediated the effects of gender and exposure to war adversities on distress symptoms and recovery of Israeli adolescents following the 2006 war with Lebanon (Kimhi et al., 2010). We hypothesized that sense of danger would be negatively correlated with the three resilience levels across the five countries.

### **1.8 Research background**

The present study examined perceived resilience during routine times and *not* following a major PTE. Yet each participant country has its own challenges to cope with, for example, natural disasters in Australia, the immigrant crisis in Germany, the harsh debate regarding Brexit in Great Britain, the security problems and terror in Israel, and the economic and political crisis in Greece. However, the current international situation (July 2016) poses many threats, such as economic crises, terror attacks, massive immigration and extreme weather phenomena (e.g., Shiller, 2016). It would appear to be highly important not only to assess people's ability to cope with potential future crises, but also to compare different societies in order to learn more about cultural aspects of resiliency. The main contribution of the current research is the use of the same tools to measure community and national resilience as well as resilience promoting and risk factors in five countries in order to learn more about similarities and differences among them.

### **1.9 Research hypotheses**

Based on the above we have posed the following hypotheses:

1. Community and national resiliencies will significantly and positively be correlated with one another and with well-being, while significantly and negatively correlated with sense of danger and distress symptoms in each of the five countries.
2. Participants from countries higher on HDI will report higher levels of national and community resilience, a higher level of well-being and lower levels of sense of danger and distress symptoms.
3. Well-being will significantly and positively predict national and community resilience while sense of danger and distress symptoms will significantly and negatively predict national and community resilience, in each of the five countries.
4. HDI will mediate the associations between well-being, distress symptoms, sense of danger, and national and community resilience for the whole sample.

## **2. Research Method**

### **2.1 Sample**

We used a snowball sampling technique of students from five different countries: Australia ( $n=171$ ), Germany ( $n=93$ ), Great Britain ( $n=134$ ), Israel ( $n=480$ ) and Greece ( $n=144$ ) (demographic characteristics, see Table 1).

**Table 1: Demographic characteristics of participants (N=1022) across the five countries**

Variable	Countries	M / %	SD		
Gender (% male)	1. Australia	64%			
	2. Germany	67%			
	3. GB	15%			
	4. Israel	40%			
	5. Greece	62%			
Age (average)	1. Australia	29	1.09		
	2. Germany	27	8.67		
	3. GB	23	6.90		
	4. Israel	26	5.57		
	5. Greece	28	9.73		
Family average SES (scale 1-5)	1. Australia	4.41	1.09	1=much	below
	2. Germany	3.93	1.24	average	
	3. GB	3.20	1.18	3=average	
	4. Israel	3.04	1.14	5=much	above
	5. Greece	3.27	1.04	average	
Size of community (scale 1-6)	1. Australia	5.14	1.28	1=very small	
	2. Germany	5.01	1.59	2=up to 5000	
	3. GB	3.14	1.33	3=up to 10,000	
	4. Israel	3.29	1.66	4=up to 50,000	
	5. Greece	4.73	1.46	5=up to 100,000 6= above 100,000	
Born in the country of study	1. Australia	74%			
	2. Germany	93%			
	3. GB	84%			
	4. Israel	92%			
	5. Greece	80%			
Political attitudes	1. Australia	3.43	.77	1= strong right	
	2. Germany	3.55	.87	2=right	
	3. GB	3.32	.77	3=center	
	4. Israel	2.91	.95	4=left	
	5. Greece	3.18	.89	5=strong left	
Religiosity (scale 1-4)	1. Australia	1.48	.70	1=secular	
	2. Germany	1.40	.72	2=traditional	
	3. GB	1.68	.87	3=religious	
	4. Israel	1.43	.70	4=very religious	
	5. Greece	1.70	.87		
Family status		Married	Single		
	1. Australia	22%	57%		
	2. Germany	11%	61%		
	3. GB	13%	73%		
	4. Israel	15%	72%		
5. Greece	22%	67%			

A university researcher from each country was assigned to collect the data at his/her institute after getting ethical committee approval from his/her university. All participants signed informed consent prior to filling out the questionnaire. Looking at Table 1 indicates some similarities and differences among the five countries. Most of the participants were born in the country where they were studying. Average family income was in accordance with the HDI index (Australians reported the highest while Greeks reported the lowest family income). Participants' genders differ across the samples (the GB sample had a much lower percentage of males).

Community sizes differ for different samples (GB and Israeli participants reported living in smaller communities). The age of the participants also varied, with the Australian sample being older and more homogenous in age (SD 1.09).

## **2.2 Measurements**

**2.2.1 National Resilience.** An earlier version of the national scale devised by Kimhi et al., (2017) was the basis for the current scale. The original 11-item instrument pertains to trust in national leadership, trust in the country's security forces, patriotism, and trust in major national institutions. The current scale consists of 25 items. The 6-point response scale ranges from 1= very strongly disagree to 6= very strongly agree. Based on earlier study (Kimhi et al., 2017), the content of the scale consists of the following: trust in the prime minister and the government, patriotism, coping with national crises, feelings of social justice and trust in national institutions. The scale's reliability across the five countries was  $\alpha = .820$  to  $.923$ .

**2.2.2 Community resilience.** Community resilience was measured by a short version of the community resilience scale developed by the Conjoint Community Resilience Assessment Measure (CCRAM) (Cohen et al., 2016; Leykin et al., 2016). This 10-item version pertains to identification with one's community (e.g., "I am proud to tell people where I live"), trust in municipal, and confidence in the community's ability to withstand adversities. The 5-point response scale ranges from 1=does not agree at all, to 5=totally agrees. The scale's reliability across the five countries was  $\alpha = .845$  to  $.888$ .

**2.2.3 Well-being.** Measuring well-being is based on an earlier version scale that we have used in studies focusing on resilience (Kimhi & Eshel, 2009). This 9-item self-report scale describes present individual strengths in the domains of work, health, recreation, wider social contacts, achievements, family relations, daily functioning, relations with friends, and general assessment of one's well-being. The 6-point response scale ranges from 1=not good at all to 6=very good. The scale's reliability across all five countries was  $\alpha = .738$  to  $.870$ .

**2.2.4 Human Development Index.** HDI in the current study was a 1- 5 scale according the relative position of each participant country: 5=Australia, 4=Germany, 3=Great Britain, 2=Israel and 1=Greece.

**2.2.5 Sense of danger.** The sense of danger scale (Solomon & Prager, 1992) pertaining to post-war perceived personal, familial and national danger was employed. This six-item instrument is rated on a Likert scale ranging from 1 (not at all) to 5 (very much). The scale's reliability across the five countries was  $\alpha = .796$  to  $.923$ .

**2.2.6 Distress symptoms.** The Brief Symptom Inventory (BSI, Derogatis & Savitz, 2000), relating to anxiety, depression, and somatization symptoms was used. This 18-item inventory is scored on a Likert scale ranging from "not suffering at all" (1), to "suffering very much" (5). The scale's reliability across the five countries was  $\alpha = .753$  to  $.917$ .

## **3. Results**

### **3.1 Correlations analysis**

First, we calculated correlation matrices (Table 2). Results indicated the following: (a) Correlations between national and community resilience are significant and positive across all five countries: The higher national resilience reported, the higher community resilience and vice versa. These results fully support our first hypothesis.(b) Correlations between national and community resilience and well-being revealed significant positive correlations across the five countries (except national resilience in Greece and Israel and community resilience in Greece): The higher the well-being reported, the higher community and national resilience reported and vice versa. Results mainly support our hypothesis regarding correlations between national and community resilience and well-being. (c) Correlations between national resilience and sense of danger are significantly negative for Australia, Israel, and GB, but not significant for Germany and Greece. Correlations between community resilience and sense of danger are significantly negative for Australia and GB but not for the other three countries. These results partially support our hypothesis regarding sense of danger (d) Correlations between national resilience and distress symptoms are significant and negative for Australia, GB and Israel but not significant for Germany and Greece. Correlations between community resilience and distress symptoms are significant and negative for Australia and GB, but not significant for the others. These results partially support our third hypothesis regarding distress symptoms and community and national resilience.(e) HDI correlated significantly and positively with national and community resilience and significantly and negatively with sense of danger as expected. However, unlike our second hypothesis, HDI correlated significantly and negatively with well-being and non-significant with distress symptoms.

These results support our second hypothesis regarding national and community resilience as well as sense of danger. However, our results did not support this hypothesis regarding well-being and distress symptoms.

**Table 2: Person correlations and Alpha Cronbach among research variables across the five countries**

(Australia N=171, Germany N=93, Great Britain N=134, Israel N=480, Greece N=144, overall N=1031).

Variable	Countries	$\alpha$	2 Community resilience	3 Well-Being	4 Sense of danger	5 Distress symptoms	6 HDI
1. National resilience	1. Australia	$\alpha=.939$	.710***	.458***	-.411***	-.244***	
	2. Germany	$\alpha=.923$	.676***	.311***	-.152	-.016	
	3. GB	$\alpha=.894$	.568***	.327***	-.333***	-.244**	
	4. Israel	$\alpha=.891$	.301***	.088	-.223***	-.119**	
	5. Greece	$\alpha=.820$	.523***	.151	-.102	-.089	
	Overall	$\alpha=.905$	.526***	.217***	-2.33***	-.210	.326***
2. Community resilience	1. Australia	$\alpha=.888$		.492***	-.356***	-.243***	
	2. Germany	$\alpha=.923$		.452***	.014	.030	
	3. GB	$\alpha=.883$		.440***	-.218**	-.232**	
	4. Israel	$\alpha=.861$		.292***	-.042	-.089	
	5. Greece	$\alpha=.845$		.072	-.108	-.018	
	Overall	$\alpha=.878$		.349***	-.161***	-.218***	.145***
3. Well-Being	1. Australia	$\alpha=.871$			-.217**	-.528***	
	2. Germany	$\alpha=.859$			.190	-.215	
	3. GB	$\alpha=.824$			-.238**	-.429***	
	4. Israel	$\alpha=.840$			-.026	-.453***	
	5. Greece	$\alpha=.738$			-.109	-.415***	
	Overall	$\alpha=.835$			-.014	-.499***	-.145***
4. Sense of danger	1. Australia	$\alpha=.858$				.403***	
	2. Germany	$\alpha=.788$				.457***	
	3. GB	$\alpha=.931$				.453***	
	4. Israel	$\alpha=.799$				.288***	
	5. Greece	$\alpha=.796$				.350***	
	Overall	$\alpha=.836$				.323***	-.405***
5. Distress symptoms	1. Australia	$\alpha=.942$					
	2. Germany	$\alpha=.944$					
	3. GB	$\alpha=.922$					
	4. Israel	$\alpha=.917$					
	5. Greece	$\alpha=.910$					
	Overall	$\alpha=.928$					.037

\*\*p<.01, \*\*\*p<.001

### 3.2 Analyses of variance

In order to examine our second hypothesis, we launched a one-way analysis of variance (ANOVA) and Scheffé post-hoc test (Table 3). Results indicated the following: (a) All five examined variable main effects significantly ( $p<.001$ ) differ across the five countries. (b) *National resilience*: Australian students reported the highest and Greek students reported the lowest. (c) *Community resilience*: Australians and Israelis reported the highest while Greeks reported the lowest. (d) *Well-being*: Israelis reported the highest and the others reported lower levels of well-being with no significant difference among them. (e) *Sense of danger*: Israelis and Greeks reported the highest and Australians and Germans reported the lowest sense of danger. (f) *Distress symptoms*: Israelis reported the lowest level of distress symptoms while the other countries did not differ significantly from each other.

**Table 3: One Way Analysis of Variance (ANOVA) comparing levels of resilience, promoting and suppressing factors by countries**

Country according to level of HDI	Var./ to scale	National resilience (scale 1-6)	Community resilience (scale 1-5)	Well-Being (scale 1-6)	Sense of danger (scale 1-5)	Distress symptoms (scale 1-5)
5. Australia	<i>M</i>	3.866 <sup>a</sup>	3.404 <sup>a</sup>	4.502 <sup>b</sup>	1.920 <sup>c</sup>	1.893 <sup>a</sup>
	<i>SD</i>	.910	.681	.859	.792	.756
4. Germany	<i>M</i>	3.646 <sup>b</sup>	3.161 <sup>b</sup>	4.493 <sup>b</sup>	2.026 <sup>c</sup>	1.900 <sup>a</sup>
	<i>SD</i>	.838	.632	.794	.771	.755
3. Great Britain	<i>M</i>	3.319 <sup>cb</sup>	3.117 <sup>cb</sup>	4.475 <sup>b</sup>	2.344 <sup>b</sup>	2.065 <sup>a</sup>
	<i>SD</i>	.789	.698	.722	.873	.739
2. Israel	<i>M</i>	3.466 <sup>cb</sup>	3.369 <sup>ab</sup>	4.883 <sup>a</sup>	2.677 <sup>a</sup>	1.759 <sup>b</sup>
	<i>SD</i>	.712	.678	.681	.736	.599
1. Greece	<i>M</i>	2.753 <sup>d</sup>	2.735 <sup>d</sup>	4.584 <sup>b</sup>	2.922 <sup>a</sup>	1.967 <sup>a</sup>
	<i>SD</i>	.541	.600	.617	.737	.674
<i>F</i> <sub>(4, 1026)</sub>		48.49***	29.82***	16.84***	49.90***	6.95***

\*\*\*p<.001, Scheffe<sup>a, b</sup>

**3.3 Regression analyses**

**Table 4: Hierarchical regression predicting national and community resilience by promoting and risk factors across countries**

Effect	National resilience			Community resilience		
	<i>b</i>	<i>SE</i>	$\beta$	<i>b</i>	<i>SE</i>	$\beta$
	Australia					
Well-Being	.484	.079	.458***	.396	.060	.500***
Sense of danger	-.471	.080	-.406***	-.270	.061	-.311***
Distress symptoms	.196	.096	.161*	.133	.074	.147
<i>R</i> <sup>2</sup>	<b>.355***</b>			<b>.325***</b>		
	Germany					
Well-Being	.471	.105	.484***	.430	.076	.582***
Sense of danger	-.326	.120	-.324**	-.154	.087	-.201
Distress symptoms	.243	.123	.236	.193	.089	.247*
<i>R</i> <sup>2</sup>	<b>.223***</b>			<b>.294***</b>		
	GB					
Well-Being	.323	.095	.296***	.398	.084	.411***
Sense of danger	-.267	.080	-.295***	-.096	.070	-.120
Distress symptoms	.039	.101	.036	-.001	.089	-.001
<i>R</i> <sup>2</sup>	<b>.198***</b>			<b>.207***</b>		
	Israel					
Well-Being	.074	.052	.071	.323	.049	.324***
Sense of danger	-.206	.045	-.214***	-.051	.042	-.055
Distress symptoms	-.029	.062	-.025	.084	.058	.074
<i>R</i> <sup>2</sup>	<b>.057***</b>			<b>.090***</b>		
	Greece					
Well-Being	.076	.081	.086	.091	.091	.092
Sense of danger	-.052	.065	-.072	-.091	.073	-.111
Distress symptoms	-.022	.077	-.028	-.052	.087	-.059
<i>R</i> <sup>2</sup>	<b>.018</b>			<b>.018</b>		

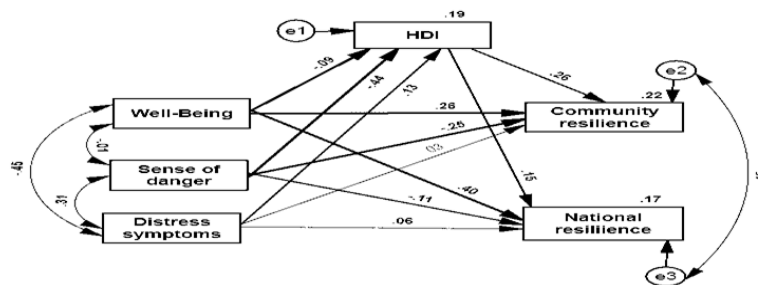
\*p<.05, \*\*p<.01, \*\*\*p<.001

In order to examine our third hypothesis according to which well-being, sense of danger and distress symptoms significantly predict national and community resilience, in each country we launched a hierarchical regression analysis separately for each of the five countries (Table 4). Results indicated the following: (a) Well-being, sense of danger and distress symptoms significantly predicted national resilience and explained 35% of the variance for Australians (highest), 22% for Germans and 20% for GB, 6% for Israelis, and only 2% for Greeks. The same factors significantly predicted community resilience (not significant for Greeks) and explained 32% of variance for Australians (highest), 29% for Germans and 21% for GB, 9% for Israelis and only 2% for Greeks (lowest). (b) Well-being significantly and positively predicted national resilience for each country except Israel and Greek. Well-being significantly and positively predicted community resilience for each country except Greece: The higher the well-being, the higher the national and community resilience reported. These results mainly support our third hypothesis regarding the role of well-being. (c) Sense of danger significantly and negatively predicted national resilience for Australians, British, Germans and Israelis (not significant for Greece). Sense of danger significantly and negatively predicted community resilience for Australians only. These results partly support our third hypothesis regarding the role of sense of danger. (d) Distress symptoms significantly and positively predicted national resilience for Australians (but not for the other countries). Distress symptoms did not significantly predict community resilience. These results marginally support our third hypothesis regarding the role of distress symptoms.

**3.4 Path analysis**

In order to examine our fourth hypothesis, according to which HDI would mediate the associations between well-being, distress symptoms, sense of danger, and national and community resilience for the whole sample, we launched a path analysis (Arbuckle, 2009). in order to estimate direct, indirect and total effects of the four predictors on national and community resilience, as well as the role of HDI as a mediator of these links (Figure 1).

**Figure 1: Path Analysis with standardized estimates, well-being, sense of danger, distress symptoms, HDI predicting national and community resilience**



The two paths from distress symptoms to community and national resilience are *not* significant.

Analyzing the saturated model (no model fit, see Bamber & van Santen, 1999) indicated the following: (a) Most of the paths in the model were significant ( $p < .001$ ), except the paths from distress symptom to national and community resilience. Higher well-being, level of HDI and lower sense of danger predicted a higher level of national and community resilience. (b) The four predictors explained 22% of the national resilience variance and 17% of community resilience variance. (c) In order to examine mediating effect, we calculated bootstrapping analysis (Mallinckrodt et al., 2006) ( $N=2000$ ) with 95% confidence intervals estimating the mediating effects of HDI on national and community resilience. Well-being, sense of danger and HDI had a significant direct effect on national and community resilience ( $p < .006$ ) and well-being, sense of danger and distress symptoms had a significant indirect effect on community and national resilience through HDI ( $p < .001$ ).



In other words, HDI partially mediated the associations between the well-being, sense of danger and distress symptoms, and national and community resilience. These results support our fourth hypothesis.

#### **4. Discussion**

Our results indicated that the associations between community and national resilience were similar: positive and significant in each of the five samples of students. These results corroborate earlier studies indicating significant medium positive correlations between national and community resilience (Kimhi & Eshel, 2009). In addition, our results showed a similar pattern of predictors across most participant countries for national resilience (and to a less degree, community resilience): country HDI and subjective well-being significantly and positively, and sense of danger significantly and negatively predicted national and community resilience.

A profound literature review revealed that few studies have examined the association between community and national resilience (e.g., Kimhi, 2016). To the best of our knowledge, none of them compared resilience in different countries, which requires caution in interpreting results. One way to explain our results is to claim that both community and national resilience significantly predict an individual's general well-being, good adaptation, and successful coping with potential traumatic events beyond cultural diversity. Future research should try to shed light on possible causality between these two levels of resilience and their predictors, which our study does not allow.

Regardless of the above similar pattern, our results also indicated that nationality, which includes the level of Human Development Index, is an important factor regarding perceived community and national resilience as well as stress (Chun, Moos, & Cronkite, 2006). A possible explanation for these results is to assume that people from different countries differently perceive the ability of their community and their country to help them in times of stress and crisis. Moreover, our results suggest that this perception associates significantly with HDI: The higher the level of HDI, the more people trust that their community and/or country will come to their aid when needed. If these results about the importance of nationality and resilience are further supported, there may be both theoretical and practical implications. One possible conclusion is the need for further cross-cultural research. A second possible conclusion, for example, is that any intervention designed to increase community resilience as a way to prepare for future disaster or terror attacks will have to be culturally adapted in order to increase its effectiveness following disaster events (e.g., National Research Council, & Geographical Sciences Committee, 2011).

Unlike community and national resilience, our study revealed that the five participant countries significantly differ regarding the three psychological characteristics: well-being, sense of danger and distress symptoms. Only sense of danger coordinate with the level of HDI index as expected. It may be suggested that these three characteristics represent more subjective perceptions. Such an explanation is in accord with cognitive appraisal theory, according to which the impact of threats depends not only on the level of objective characteristics (such as level of exposure to stress or the severity of economic crisis), but also on people's subjective perceptions of these threats (Lazarus & Folkman, 1984).

Accordingly, Israeli students reported the highest level of well-being while the other four countries reported significantly lower levels of well-being, but did not differ significantly from each other. These results do not match the DHI index. Thus, our results may suggest that many factors seem to affect perceived well-being, as suggested by other studies (e.g. Stevenson & Wolfers, 2008). Distress symptoms differ among the five participant countries: Israeli students reported the lowest level of distress compared with the other countries. It seems that distress symptoms play different roles in different countries. A possible explanation for these results is to claim that individual distress is much affected by culture (Denham, 2008).

#### **4.1 Limitations of the study**

Among the limitations of this study, we may mention the following: First and most important, the student samples among the five countries were based on snowball sampling and not on representative samples. Second, all the five participating countries were not in a life-threatening situation (serious PTE) at the time the research took place. Third, four of the countries' samples (but not the Israeli sample) were based on one higher educational institute and did not have nationwide distribution.

## 4.2 Conclusions

Despite these limitations, we believe that this study has three major strengths. First, cross-cultural studies of community and national resilience have rarely been done. Our study indicated that the home country is an important factor regarding national and community resilience. Second, our study revealed that the tools that have been used in this study showed a high level of reliability across the different countries. Third, the positive correlations between the two levels of resilience, across the participant countries, may suggest that community resilience might be a first priority when preparing emergency intervention, due to practical considerations and the consideration of the community level of emergency intervention after a major national PTE.

## 5. References

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