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## Is resilience related to depression, anxiety and energy? European Social Survey results

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### Abstract

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Resilience is understood as capability to recover from adverse events. However, it is not clear how resilience relates with anxiety, depression and energy in socially diverse European countries. Research question. How resilience relates with anxiety, depression, and energy levels in European citizens? The purpose of study is to assess links between psychological resilience and anxiety, depression and energy in Western Europe, Scandinavia and Baltic States. Research methods. Experts-generated single-item questions from European Social Survey round 6 were used to assess psychological resilience, anxiety, depression, and energy levels. Countries were grouped according to the United Nations classification. Linear regression analysis was used to assess relationship between the psychological constructs. Findings. In Western Europe and Scandinavia higher levels of psychological resilience are predicted by lower levels of depression and anxiety, higher levels of energy, as well as male gender and younger age (in Western Europe) (all  $p < .042$ ). In Baltic States higher levels of psychological resilience are predicted by lower levels of depression and higher levels of energy (all  $p < .023$ ). Conclusions. Psychological resilience in most European countries is predicted by lower levels of depression and anxiety and higher levels of energy. More detailed research is needed to discover country differences in psychological resilience and its correlates.

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**Keywords:** Resilience; anxiety; depression; energy; European countries.

### 1. Introduction

Humans in their life usually encounter varieties of stressors, which range from simple everyday challenges to major life decisions. It is common to think that greater amount of stress contributes to worse physical and mental health (Jarašiūnaitė, Kavaliauskaitė-Keserauskienė, Perminas, 2012), and scientists try to find answers why some individuals become overwhelmed with common everyday challenges while others produce neutral or even positive reactions (and consequences) to most

everyday challenges (Lazarus & Folkman, 1984; Bonnano, 2004). One of possible psychological characteristic which may be able to explain why some individuals are able to stand, or even thrive in the pressure of their everyday lives is psychological resilience (Fletcher & Sarkar, 2013). Psychological resilience can be defined as “An individual’s stability or quick recovery (or even growth) under significant adverse conditions” (Leipod & Greve, 2009, p. 41).

Higher psychological resilience relates with lower risk of various physical and mental disorders (e.g. Davydov, Stewart, Ritchie, Chaudieu, 2010). Also higher psychological resilience relates with greater amount of positive emotions which in turn also relates with better physical and mental health (e.g. Tugade, Fredrickson, Barrett, 2004). So it may be assumed that psychological resilience can be beneficial both for physical and mental health. However, a question how psychological resilience relates with other psychological or social variables is not fully answered.

Studies show that women tend to lower psychological resilience than men (Bonnano, Galea, Bucciarelli & Vlahov, 2007), but other studies did not find differences between gender and psychological resilience (Pietrzak & Southwick, 2011). Older age also relates with higher psychological resilience (Bonnano, Galea, Bucciarelli & Vlahov, 2007; Pietrzak & Cook, 2013). Results with levels of education suggest that higher levels of education does not relate with higher levels of psychological resilience (Bonnano, Galea, Bucciarelli & Vlahov, 2007), but other studies show otherwise (Bonanno, Galea, Bucciarelli & Vlahov, 2006; Pietrzak & Southwick, 2011; Pietrzak & Cook, 2013). Lower levels of psychological resilience are related with loss of income, lower perceived social support and lower income (Bonanno, Galea, Bucciarelli & Vlahov, 2007; Pietrzak & Cook, 2013). Also respondents with lower psychological resilience more likely live alone, without a partner (Pietrzak & Southwick, 2011; Pietrzak & Cook, 2013). Studies also demonstrate that higher psychological resilience relates with higher extraversion, agreeableness, conscientiousness, emotional stability and lower openness to experiences (Pietrzak & Cook, 2013), also with higher altruism, religiosity and active lifestyle (Pietrzak & Cook, 2013). Psychologically resilient individuals tend to show lower amount of depressive symptoms (Pietrzak, Johnson, Goldstein, Malley & Southwick, 2009; Gooding, Hurst, Johnson & Tarrier, 2012), they are more often optimistic, energetic, open to experience, have high positive affectivity (Klohn, 1996). M. M. Tugade and B. L. Fredrickson (2004) argue that positive emotions are important for psychological resilience. So one may assume that psychological resilience relates with some psychological constructs as well as with socio-demographic variables, but these relationships are not unambiguous.

There is a possibility that psychological resilience depends on cultural and geographic differences. R. Hassink (2009) argues that resilience can explain why some regions renew themselves and why others declines in the face of the same adversities. There are also publications where resilience is investigated in different enterprises (Sheffi, 2005) and different cities (Vale & Campanella, 2005), but these studies were focused on economics, politics, but not psychology. Also there is a possibility that psychological resilience have different predictors in different regions or countries in the same way as in different cities or organizations.

Also there are some studies which show that positive emotions, psychological resilience and life satisfaction are related and that positive emotions increase life satisfaction by building on psychological

resilience (Cohn, Fredrickson, Brown, Mikels & Conway, 2009). So, it is possible that differences in happiness may be explained by psychological resilience which in turn may be explained by positive emotions (Tugade, Fredrickson, Barret, 2004). It is known that different countries differ by levels of happiness (e.g. Diener, Suh, Smith, Shao, 1995) and there is a possibility that levels and predictors of psychological resilience also differ in different countries and regions.

Our study aims to investigate psychological resilience predictors in different European regions – Western European region, Scandinavian regions and Baltic States. These regions have been chosen because two of them (Western and Scandinavian) have high levels of economic well-being and happiness, and the third one shows lower levels of happiness (Eurostat, 2016). We hypothesize that in different European regions predictors of psychological resilience will differ. The aim of our study is to investigate relationships between psychological resilience and emotional states – depression, anxiety, energy and demographic variables such as gender and age.

## **2. Research methods**

The data from European Social Survey, ESS, ([www.europeansocialsurvey.org](http://www.europeansocialsurvey.org)) round 6 was used to assess links between psychological resilience and depressive symptoms, anxiety, levels of energy, gender and age. The European Social Survey (ESS) is an academically driven cross-national survey that has been conducted every two years across Europe since 2001. ESS monitors social change in Europe since 2002. The data is freely available on the website and can be used for non-commercial purposes. Survey questions have been created by experts, every module includes theoretical background as well as the argumentation for the need of research. According to survey requirements sampling must be representative for people aged 15 and over, strict random probability methods must be used at every stage, substitution of non-respondents is not permitted at any stage.

The dataset of the present study is composed of single-item questions measuring psychological resilience (“When things go wrong in my life it takes a long time to get back to normal”), where 1 means that a subject agrees strongly with that item and 5 - disagrees strongly, depressive symptoms (“How much of the time during the past week you felt depressed?”), anxiety (“How much of the time during the past week you felt anxious?”), energy level (“How much of the time during the past week you had a lot of energy?”), where 1 means “none or almost none of the time” and 4 means “all or almost all of the time”. Demographic variables included gender and age.

Resilience refers to “returning to, and speed of return to, a previous level of good functioning following difficult times or severely disturbing experiences.” (European social survey, 2013, p. 12). Energy levels refer to the “extent to which people feel like they have a lot of energy” (European social survey, 2013, p. 18), anxiety refers to a “negative mood condition distinct from depression, and characterised by fear and concern” (European social survey, 2013, p. 24).

A total number of respondents which were interviewed in 2012 was 17425 (48.4 per cent of males and 51.6 per cent of females). Respondents’ age was from 15 to 101, but the majority of respondents were aged 15 to 79 (95.5 per cent). Countries were grouped to Western region (Germany, Switzerland, France, Belgium, Netherlands), Scandinavian region (Sweden, Denmark, Norway) and Baltic States (Lithuania, Estonia). Unfortunately, Latvia did not provide data for ESS round 6, so Baltic States group

is not full. Countries to Western region were assigned according to the United Nations classification, Scandinavian region and Baltic States were assigned according historical and cultural background.

### 2.1. Statistical analysis

For statistical analysis we used a linear regression model where psychological resilience is a dependent variable, and depression, anxiety, levels of energy, subjective general health, age, gender are independent (predictor) variables. The range of Skewness and Kurtosis in psychological resilience was from -.521 to -.582 which are acceptable to prove the normal data distribution (George & Mallery, 2010).

## 3. Findings

Results of psychological resilience relationships to depression, anxiety, energy levels, age and gender in Western Europe region are presented at table 1.

**Table 1.** Predictors of psychological resilience in Western European countries (linear regression model)

	Characteristics	B(SE)	b	t
Psychological resilience ( $R^2=0.14$ )	Depression	-0.24(0.01)	-0.15*	-17.92
	Anxiety	-0.28(0.01)	-0.19*	-23.59
	Energy level	0.19(0.01)	0.15*	18.99
	Age	-0.00(0.00)	-0.07*	-9.64
	Gender	-0.02(0.01)	-0.01	-1.73

Note: B= Unstandardized beta coefficient, SE= standard error, b= standardized B, \*  $p<0.05$ .

Results show that in Western Europe region lower levels of depression, anxiety, lower age, higher levels of energy predicted higher psychological resilience ( $R^2=0.14$ ).

Results of psychological resilience relationships to depression, anxiety, energy level, age and gender in Scandinavia region are presented at table 2.

**Table 2.** Predictors of psychological resilience in Scandinavian countries (linear regression model)

	Characteristics	B(SE)	b	t
Psychological resilience ( $R^2=0.15$ )	Depression	-0.31(0.04)	-0.19*	-7.55
	Anxiety	-0.24(0.04)	-0.15*	-6.07
	Energetic	0.19(0.02)	0.17*	7.32
	Age	-0.00(0.00)	-0.02	-1.21
	Gender	-0.06(0.04)	-0.03	-1.55

Note: B= Unstandardized beta coefficient, SE= standard error, b= standardized B \*  $p<0.05$ .

Results from table 2 demonstrate that in Scandinavian countries lower levels of depression, anxiety, higher levels of energy predicted higher psychological resilience ( $R^2=0.15$ ).

Results of psychological resilience relationships to depression, anxiety, energy level, age and gender in Baltic region are presented at table 3.

**Table 3.** Predictors of psychological resilience in the Baltic States (linear regression model)

	Characteristics	B(SE)	b	t
Psychological resilience ( $R^2=0.17$ )	Depression	-0.36(0.08)	-0.25*	-4.15
	Anxiety	-0.12(0.08)	-0.08	-1.43
	Energetic	0.18(0.06)	0.15*	2.70
	Age	-0.00(0.00)	-0.03	-0.68
	Gender	-0.06(0.09)	-0.03	-0.66

Note: B= Unstandardized beta coefficient, SE= standard error, b= standardized B \*  $p<0.05$ .

The results from table 3 demonstrate that in the Baltic region lower levels of depression and higher levels of energy predicted higher psychological resilience ( $R^2=0.17$ ).

#### 4. Conclusions

In the present study we examined links between emotional states (depression, anxiety) and energy levels), socio-demographic variable (gender, age) and psychological resilience in 3 different European regions (Western Europe, Scandinavia and Baltic states).

Results demonstrate that predictors of psychological resilience slightly differ in different regions. In Western Europe only gender does not predict psychological resilience. In Scandinavia gender and age does not predict psychological resilience. In Baltic States gender, age and anxiety does not predict psychological resilience. Also in Western Europe anxiety was the strongest predictor of psychological resilience but in Scandinavia and Baltic States depression was the strongest predictor.

These differences can be explained by different past experiences. Baltic States (Lithuania, Estonia) as Post-Soviet countries had different cultural experiences in the past than Scandinavian (Sweden, Denmark, Norway) or Western European (Germany, Switzerland, France, Belgium, Netherlands) countries. Political and social distrust, lack of freedom and equality, different political system, mandatory job – it is only a couple aspects of life in the former Soviet Union and these experiences can possibly affect the current state (Hyypä, 2010). These long-term and negative experiences can affect psychological resilience and other psychological constructs as well. It is suggested that politics is important for recovery of serious disasters (like wars, strong earthquakes) which destroy cities, and how cities recover from disasters depend on politics as well as culture (Vale & Campanella, 2005). We assume that politics and culture can affect personal levels of resilience as well. Studies also show that higher levels of community resilience is related with higher levels of political activity (Poortinga, 2012). In Post-Soviet countries political activity is lower than that of Scandinavian or Western European countries (Letki, 2003) and this can be one possible explanation why citizens of Baltic States differ from Scandinavians or Western Europeans by their level of psychological resilience and its' predictors. However there is a need for further investigations at country levels for understanding how

political activity, as well as political system can affect psychological resilience and, probably, other psychological constructs.

In general, the study showed that Western European, Scandinavian and Baltic States differ by predictors of psychological resilience. In all three regions only lower levels of depression and higher levels of energy predicted higher psychological resilience.

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