

Correlates of Mental Health and Psychological Well-being of the European Youth: evidence from the European Quality of Life Survey

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Abstract

Youth well-being is becoming more central to European social policies both in the EU and at a national level. The study of well being has come far in recent years such that the focus has shifted from understandings with a focus on objective measures towards a nuanced analyses including a variety of social and psychological dimensions. At the same time, there have been significant advances in the development of common research instruments and cross-national surveys, both of which facilitate a comparative analysis of well-being. This paper uses evidence from the European Quality of Life Survey 2011 to highlight national differences in mental health and psychological well-being and begins the process of establishing which factors appear to predict positive experiences.

Introduction

Youth well-being is fundamental to that of society as a whole. Promoting youth well-being is not only vital in order for young people to have a good youthhood, but also as a firm basis for their future well-being as adults (Rees et al. 2012). How youth fare through critical points of development affects their quality of life, their productivity, welfare dependency and the transmission of their later life outcomes to their own children (Richardson 2012).

In recent years, youth well-being has become a priority for the European political agenda. As part of the European cooperation on social protection and social inclusion, the European Union (EU) has expressed strong political commitment to promoting well-being among young people as is reflected (among other initiatives) in the establishment of an EU Task-Force on child poverty and child well-being in 2007 (TARKI Social Research Institute 2010).

The EU Task-Force went on in 2008 to produce a report (EU Task-Force 2008) spelling out recommendations for analysing, monitoring and assessing child poverty and well-being at EU, national and sub-national levels. The Task-Force report, together with its recommendations, was formally endorsed the Social Protection Committee (SPC) and the European Commission and is now part of the EU acquis (SPC 2012).

Although EU Cooperation on social issues (in particular through the Social OMC) has provided the main framework for addressing child poverty and child well-being in an EU context, many other policies have touched upon the issue: education and training policies (in particular in relation to early school leaving, early childhood education); the EU Agenda on the Rights of the Child; reconciliation, work and family policy (among others in the framework of the European Alliance for Families); health policy, cohesion policy (through the development of childcare and/or housing infrastructures and support for deinstitutionalisation) (Social Protection Committee 2012).

The Europe 2020 Strategy gives a new impetus to efforts addressing child poverty and social exclusion in the EU. A number of Member States have set specific targets or sub-targets relating to child poverty/social exclusion as their contribution to the headline European target to reduce the number of people at risk of poverty and social exclusion by at least 20 million by 2020 (Council of the European Union 2012). Therefore, Euro 2020 has given priority to fighting poverty and social exclusion and improving the well-being of children and young people.

In the context of these European policy developments, one of the biggest challenges for the EU is to improve youth well-being using robust empirical evidence. Fortunately, there are a number of pan-European surveys which contain invaluable data on well-being. Researchers across Europe are now analysing these data and publishing results. These findings provide valuable insights on the overall state of well-being and allows the European Union to map out its different Member States and regions in relation to various domains of well-being. In addition, these studies have collected data on a number of factors which are commonly believed to associate with well-being. Although most of these studies identify age as an important factor in well-being, they appear to be reluctant to accept that youth well-being is distinct from that of the general adult population. In this regard, Fattore et al. (2007) argue that the concepts of well-being developed for adults are not directly transferable to the measurement of youth well-being. Moreover, Bradshaw (2009) argues that the limited number of well-being domains prepared for adults do not provide the full picture on the state of well-being for young people.

This paradigm shift of research on youth well-being is reinforced by the socially structured transitions that young people face on their journey to adulthood, trajectories that themselves have increasingly become non-linear (Pollock 2008). Furthermore, Croxford et al. (2006) argue that for over a decade, we observe a transformation in the nature of young people's transitions in the wake of changes in the labour market, in compulsory and post-compulsory education and in higher education. The EU, today, is experiencing major economic, environmental, political and social changes that directly affect children and young people. Children in the EU face a higher risk of relative poverty than the population as a whole (20% for children aged 0-15 and 21% for those aged 16-24, compared to 16% for adults) (Commission of the European Communities 2006). Moreover, the percentage of children living in poverty or social exclusion is on the rise in a number of Member States as a result of the impact of the economic crisis (Council of the European Union 2012). Demographic changes, for example higher life expectancy and lower fertility rates together with changing gender roles in relation to child care and employment are factors that influence the family context in which children grow up. New challenges arise due to the higher mobility demands of the labour market, which may complicate and reduce the possibility and/or frequency of intergenerational familial contacts.

New family structures have arisen as a result of an increase in divorce rates; single families, stepfamilies, and patchwork families. In addition, more and more children are growing up in migrant families throughout European countries (Perrig-Chiello 2009). In order to understand how these factors (and others) are linked to youth well-being, further analysis focusing specially on sub groups of youth is essential. This paper, therefore, focuses on the well-being of European youth and aims to identify the demographic and psycho-social factors which are related to their well-being. These findings are a useful starting point in identifying specific

Europe wide similarities and differences and as such should help to inform the policy processes which aim to improve youth well-being across the whole of Europe.

Well-being: Psychological and mental health aspects

Despite substantial academic and policy interest in well-being over the decades, there is no universally accepted definition of the concept. In academic literature, it is used as an overarching concept to refer to the quality of life of people in society (Rees et al. 2010).

In defining the concept of well-being, a distinction is also made between the hedonic and eudaimonic approaches (Ryan & Deci, 2001). Scholars influenced by the hedonic approach view well-being in terms of subjective happiness and the experience of pleasure versus displeasure broadly construed to include all judgements about the good/bad elements of life. Although there are many ways to evaluate the pleasure/pain continuum in human experience, most research within the new hedonic psychology has used assessment of subjective well-being (SWB) (Diener & Lucas, 1999). SWB consists of three components: life satisfaction, the presence of positive mood, and the absence of negative mood, together often summarized as happiness.

On the other hand, the eudaimonic approach maintains that not all desires—not all outcomes that a person might value—would yield well-being when achieved (Ryan & Deci 2001). It focuses on meaning and self-realisation and defines well-being in terms of the degree to which a person is fully functioning. Ryff and Singer (1998 2000) have explored the question of well-being in the context of developing a lifespan theory of human flourishing. Ryff and Keyes (1995) spoke of psychological well-being (PWB) as distinct from SWB and presented a multidimensional approach to the measurement of PWB that taps six distinct aspects of human actualization: autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness.

Self-determination theory (SDT) (Ryan & Deci 2000) is another perspective that has both embraced the concept of eudaimonia, or self-realisation, as a central definitional aspect of well-being and attempted to specify both what it means to actualize the self and how that can be accomplished. Specifically, SDT posits three basic psychological needs—autonomy, competence, and relatedness—and theorises that fulfilment of these needs is essential for psychological growth (e.g. intrinsic motivation), integrity (e.g. internalisation and assimilation of cultural practices), and well-being (e.g. life satisfaction and psychological or mental health) (Ryan & Deci 2001).

If we look at the progress that has been made so far on well-being research following these two paradigms, it appears that research on youth subjective well-being (hedonic approach) is more dominant than research on youth psychological well-being (eudaimonic approach) (Rees et al. 2013). Large scale surveys less frequently include questions linked to this approach (Eurofound 2013). Rees et al. (2013) argues that the reason for this might be linked to the fact that in many cases traditional measures of psychological well-being are not suitable for young people. This paper addresses this research gap on youth well-being by identifying the demographic and psycho-social factors which are associated with youth mental health and their psychological well-being.

Data and Methods

Data for this paper are obtained from the third round of the European Quality of Life Survey (EQLS), which is run every 4 years by the European Foundation for the improvement of living and working conditions. The third wave of the EQLS, which was carried out in 2011–2012, included people aged 18 years and older from 34 countries (EU-27 plus Croatia, Iceland, Montenegro, former Yugoslav Republic of Macedonia, Serbia, Turkey and Kosovo). In all countries, data were collected via face-to-face interviews, respondents were selected by multistage random sampling. The overall response rate was 41%. For a more detailed description of the survey, see Eurofound (2012). This paper uses data from just under 5000 young people aged 18-25 who took part in the third wave of the survey.

Measures

Dependent variables

Psychological well-being

The EQLS included three items each focusing on optimism, feeling worthwhile and autonomy. These items were (a) I generally feel that what I do in life is worthwhile, (b) I feel I am free to decide how to live my life, and (c) I am optimistic about the future. Respondents answered them on a five-point scale from 'Strongly agree' (score = 4) to 'Strongly disagree' (score = 0). A principal component analysis with orthogonal (varimax) rotation extracts one factor (total initial eigenvalue 1.84) explaining 61.33 per cent of the total variance. Therefore, these items measure a single construct of 'psychological well-being'. Internal consistency analysis of these three items obtains a Cronbach alpha of 0.68, which indicates moderate reliability of the scale. Scores for these items are added to create a summated scale ranging from 0 to 12, a higher score indicates a greater level of psychological well-being.

Mental health

Mental health was measured using five items that the World Health Organization originally developed (Bech 1998). The questions were: (a) I have felt calm and relaxed, (b) I have felt cheerful and in good spirits, (c) I have felt active and vigorous, (d) I woke up feeling fresh and rested, (e) My daily life has been filled with things that interest me. Respondents were asked how closest they felt each of these over the last two weeks. Responses were recoded as 'All of the time' (score = 5), 'Most of the time' (score = 4), 'More than half of the time' (score = 3), 'Less than half of the time' (score = 2), 'Some of the time' (score = 1), 'At no time' (score = 0). The results of a factor analysis suggest that these items load under one factor (eigen value of 3.18 explaining 63.69% variance) indicating a uni-dimensional nature of the construct of 'mental health'. A Cronbach alpha value of 0.85 suggests strong reliability of these items for a scale. Scores for each item were added to create a summated scale of 'mental health' ranging from 0 to 25 where a higher score indicates greater quality of mental health.

Independent variables

Demographics

In the survey, respondents were asked to self-report their age from which the youth segment (18-25) was identified for this paper. Using equivalised income, four income quartiles were derived each reflecting a particular household income group (from 1 = lowest to 4 = highest).

The lowest income quartile is used as a reference category. In order to measure household finance, respondents were also asked to compare their own household financial situation with most people in their country and position themselves among the following categories: 'Better', 'Same', and 'Worse'. 'Better' is used as a reference category. In order to measure the household solvency, respondents were asked to describe the level of difficulty the household faces in making the ends meet. Responses were grouped into two categories: 'Easily' and 'with difficulty'. For measuring respondents' expectation on future changes in the household finance, they are asked whether their financial situation would be 'Better', 'Worse' or the 'Same' in the next 12 months. Citizenship status was measured by asking respondents whether or not they were a citizen of the country they lived in. Respondents self-defined into being 'disabled' and 'not disabled'. For urban density, respondents described their area of living from four response options: open country, village, medium town, and city. European countries that took part in the survey were grouped into five categories based on their geographical position: Nordic (reference category), UK and Ireland, Central Europe, Mediterranean, and Eastern Europe.

Psycho-social factors

Accommodation quality

For measuring accommodation quality, respondents were asked whether they had any of the following problems with their accommodation: (a) shortage of space, (b) rot in windows, doors, or floors, (c) damp or leaks in walls or roof, (d) lack of indoor flushing toilet, (e) lack of bath or shower, and (f) lack of place to sit outside (e.g. garden, balcony, terrace). Respondents who said 'No' to those six problems were counted and this produced an index ranging from 0-6 (higher scores indicate better accommodation quality).

Support network

The EQLS asked respondents whom they got support from in the following five situations: (1) Help around the house when ill, (2) Advice about a serious personal or family matter, (3) Help when looking for a job, (4) Feeling a bit depressed and wanting someone to talk to, and (5) To urgently raise money to face an emergency. Respondents chose answers from four options: family or relative, friend or neighbour, a service provider, and none. Respondents who said family or relative, friend or neighbour, or a service provider were counted which resulted in an index ranging from 0-5 (higher scores indicate greater support network).

Social tension between old and young people

In order to measure social tension, respondents were asked how much they thought was the tension between old and young people in their own country. Responses were collected on a three-point scale and were scored as follows: 'No tension' (score = 0), 'some tension (score = 1), and 'A lot of tension' (score = 2).

Interaction with friends and neighbours

For measuring interaction, respondents were asked how often they contact with their friends or neighbours. Responses were collected on a five-point scale and were scored as follows: 'Never' (score = 0), 'Less often' (score = 1), 'One or three times a month' (score = 2), 'At least once a week' (score = 3), and 'Every day or almost every day' (score = 4).

Caring responsibility

For measuring the degree of caring responsibility that young people have, they were asked how often they are involved (outside of their work) in caring for elderly or disabled relatives. Answers were collected on a five-point scale and were scored as follows: 'Never' (score = 0), 'Less often' (score = 1), 'One or twice a week' (score = 2), 'Several days a week' (score = 3), and 'Every day' (score = 4). Higher scores indicate a greater caring role for the young people.

Satisfaction with economic situation of the country

For measuring satisfaction with the country economic situation, respondents were asked to score on a ten-point rating scale ranging from 1 (very dissatisfied) to 10 (very satisfied).

Public service facilities scale

For measuring public service facilities, respondents were asked to describe their level of difficulty in getting access to the following services: (a) postal services, (b) banking, (c) public transport, (d) cinema, theatre or cultural centre, and (e) recreational or green areas. Level of difficulty for service was measured in a four-point scale (from 'very easy' to 'with great difficulty'). A principal component analysis with orthogonal (varimax) rotation extracts one factor (total initial eigen value 2.83) explaining 56.65 per cent of the total variance. Therefore, these items are taken to measure a single construct of 'public service facilities'. Internal consistency analysis of these five items obtains a Cronbach alpha of 0.81, which indicates a very high consistency of the scale. A summated scale is developed by adding the scores. The scale ranges from 5 to 20; a higher score indicates a greater level public service facilities.

Quality of neighbourhood

Respondents were asked to report the degree of problems (major, moderate, and no problems) on the following six aspects in their immediate neighbourhood: (a) noise, (b) air quality, (c) quality of drinking water, (d) crime, violence or vandalism, (e) litter or rubbish on the street, and (f) traffic congestion. The results of a factor analysis suggest that these items load under one factor (eigen value of 3.04 explaining 50.63% variance) indicating a uni-dimensional nature of the construct of 'neighbourhood quality'. A Cronbach alpha value of 0.80 suggests very strong reliability of these items for a scale. Scores for each item were added to create a summated scale on 'quality of neighbourhood' ranging from 6 to 18 where higher scores indicate greater quality of neighbourhood.

Religiosity

For measuring religiosity, young people were asked how often they attended religious services apart from weddings, funerals, or christenings. They provided their responses on a five-point scale ranging from 0 'Never' to 4 'Every day or almost every day'.

Physical activity

A five-point scale ranging from 0 (Never) to 4 (every day or almost every day) was developed to measure the amount of physical activity of the young people.

Data analysis

As can be seen above, factor analysis along with Cronbach alpha were used to evaluate the psychometric properties of scales. The univariate analysis consisted of percentages as well as mean and standard deviation. For bivariate analysis t-test, ANOVA, and Pearson correlation coefficients were calculated.

Results

Background characteristics of the respondents

The average age of the young people aged 18-25 analysed here was 21.61 (standard deviation = 2.21) old. Females (53%) slightly outnumbered the males. Slightly less than half (46%) and almost one-quarter of them were in education and employment respectively. Almost one in six thought their household finance was worse than their fellow citizens. Slightly less than half of the respondents (46%) described that they had difficulty to make ends meet with their household income. Almost all of the respondents (96%) were citizens of the country they lived in. Nearly one out of ten reported having a disability. Sixty one per cent of respondents lived in a medium town or city and the rest lived in village or open country.

Youth psychological well-being by European countries

The average score for psychological well-being for all young people in the survey was 8.98 (out of a maximum 12). The results in Figure 1 suggest that this varies widely across the countries surveyed. The bars in both Figures 1 and 2 are colour coded in relation to the geographic region used as a covariate in tables 1 and 3 below (Nordic, Central Europe, Mediterranean, UK and Ireland). Young people from Denmark, Iceland, and Sweden reported the three highest average scores on psychological well-being scale, whereas their counterparts from Greece and Slovakia and Portugal scored the three lowest averages. Indeed there is a suggestion that there is a strong regional dimension to psychological well-being with Nordic countries tending to score highly and Mediterranean countries the reverse.

[Figure 1 here]

The association of demographic characteristics with youth psychological well-being

Out of the eleven demographic characteristics in Table 1, nine have a statistically significant association with youth psychological well-being. Although the degree of association was low, 'older' young people reported having significantly lower psychological well-being. Young people in education reported having higher psychological well-being compared to those who are employed. However, those unemployed reported significantly lower psychological well-being than employed youth. Household income plays a significant role as the young people living in the highest quartile reported having higher psychological well-being compared to those living in the lowest household income quartile.

Psychological well-being appeared to be significantly lower for those young people who felt that their household financial situation was worse than those citizens they felt to be doing better. In this regard, young people who reported their household making ends meet 'with difficulty' had significantly lower psychological well-being. Future financial worry appears to play a key role in youth psychological well-being because those who expected their household finances to get worse reported significantly lower psychological well-being. Young people

with a disability reported having significantly lower psychological well-being. Moreover, compared to those young people living in the Nordic region, the psychological well-being of young people living in all other regions in Europe (UK and Ireland, Mediterranean, central, and Eastern Europe) was significantly lower. Gender and citizenship status did not show a significant association with psychological well-being.

[Table 1 here]

Psycho-social factors and youth psychological well-being

Apart from the intensity of caring role and religiosity, the remaining eight psycho-social factors have a statistically significant association with youth psychological well-being (Table 2). Higher accommodation quality, support network, interaction with friends and neighbours, and satisfaction with own country financial position are found to be significantly associated with higher psychological well-being of young people. Moreover, young people who reported high on physical exercise, and public service as well as neighbourhood quality appeared to have higher levels of psychological well-being. Interestingly, lower psychological well-being was associated with a greater amount of tension between young people and old people. The degree association of these psycho-social factors suggest that satisfaction with own countries financial position is the most important factor followed by public service and neighbourhood quality, and then support networks.

[Table 2 here]

Youth mental health by European countries

The average score for mental health for all young people in the survey was 16.82 (out of a maximum 25). As with psychological well-being, the mental health of the young people differs widely by European countries (Figure 2). In this regard, the Macedonian, Bulgarian and Montenegrin young people appeared to be doing well when compared to many other European youth such as Icelanders, British, and Swedish. An interesting pattern is observed when the results in Figure 1 and Figure 2 are compared. Although the young people from the Nordic countries placed themselves high on the psychological well-being scale, on average they tended to report lower, relative to the other countries, on mental health (Pearson $r = -0.023$).

[Figure 2 here]

The association of demographic factors with youth mental health

Older youth, females, those with a disability, and young people living in a household that finds it difficult to make ends meet reported significantly lower levels of mental health (Table 3). Although students appeared to have higher mental health scores than those in employment, young people in charge of family care reported lower mental health scores. Compared to those in the lowest quartile of household income, young people living in the second, third and the highest quartile had significantly higher mental health scores. Young people who evaluated their household finances to be worse than their fellow citizens reported significantly lower levels of mental health than those who reported being better off. Those who fear for worse household finances in the next twelve months had significantly lower mental health scores. Young people living in open countryside (as opposed to city dwelling youth) and those living in Mediterranean and East European countries (as opposed to the Nordic region) reported significantly higher mental health scores. However, the citizenship of the young people did not have any significant relation with mental health.

[Table 3 here]

Psycho-social factors and youth mental health

Except for those in a caring role, the nine psychosocial factors in Table 4 are significantly associated with youth mental health. In this regard, greater accommodation quality, support network, interaction with friends/neighbours, satisfaction with country economic situation, public service quality, neighbourhood quality, religiosity, and physical exercise are linked to better mental health of the young people. However, higher tension between young and old is significantly associated with worse youth mental health. Among those psycho-social factors, accommodation quality appears to have stronger relation followed by satisfaction with country economic situation, support network, and public service quality.

[Table 4 here]

Main findings and their implications

This paper identifies the demographic and psychosocial factors that are associated the mental health and psychological well-being of a representative sample of European young people. This section highlights the main findings and discusses their implications both in terms of theories and youth policies in Europe.

Young people in European countries widely vary widely in terms of the level of both psychological and mental health. At the aggregate level, although some countries, in particular Nordic ones, are doing well on youth psychological well-being, youth mental health of some of these countries appears to be relatively low. Perhaps the negative association between psychological well-being and mental health that we observe in aggregate terms can be explained by the popular psychological concept of 'Affluenza' which Oliver (2007) uses to explain the prevalence of higher rates of mental disorders in wealth-seeking consumerist nations. At the individual level, however, both the mental health and psychological well-being of young people are significantly related to a range of demographic factors including age, employment status, household finance, disabilities, and area of living. Moreover, the mental health and psychological well-being of European youth are significantly linked to accommodation quality, support network, interaction with friends/neighbours, satisfaction with country finance, public service quality, neighbourhood quality, and exercises/sports.

These findings have theoretical implications as they contribute to our knowledge on youth well-being using a eudaimonic approach that is relatively less well developed for research with children and young people. Apart from the theoretical significance of this, these findings have a number of implications for the European youth policies.

Significant negative associations of age with both mental health and psychological well-being suggests that more systematic interventions, targeting 'older' young people, are required. Young people having roles for family care, in unemployment and with a disability should arguably receive more support as not to do so is likely to contribute to worsening mental health and psychological well-being. Macroeconomic policies, especially the policy of alleviating youth poverty, is key for European countries. Maintaining quality in accommodation, neighbourhood, public services, sports facilities, and support networks are crucial as many of these services are affected in the face of austerity. Policies both at the national and the EU level should identify regions/or localities where more resources are required because of wide variations in youth mental health and psychological well-being by countries and areas of living (rural, city etc). Overall, policies on social protection and care, local government, citizen engagement, education, health, and finance should aim for improving youth mental health and psychological well-being by considering the relations of these demographic and psychological factors.

Limitations and future directions

Despite their theoretical and policy significance, the findings of this paper should be treated with some caution. This section identifies a number of limitations that future studies need to address.

Firstly, it uses a correlational design. Therefore, causal connections cannot be established between demographic and psychosocial factors and youth mental health and psychological well-being. For identifying cause-effect relationship, longitudinal data is required and a Europe wide longitudinal study of children and young people's well-being is the only way of doing this.

Secondly, this paper focuses on a specific youth cohort using data from the EQLS that collected data from those aged 18 and above. Therefore, the results do not reflect the views of younger cohorts (aged below 18). Although there are challenges, future studies should also aim to collect data on mental health and psychological well-being from younger groups.

Thirdly, results on the associations between demographic and psychosocial factors and youth well-being for this exploratory paper were drawn from bivariate analysis. These factors need to be examined more closely in the future using multivariate statistical techniques. In this regard, multilevel modelling may achieve more robust results because of the structured nature of the data (individual respondents nested in country).

Fourthly, for identifying the demographic and psycho-social factors of youth mental and psychological well-being, this paper explored only individual level variables. Although these are crucial factors, future studies should examine their associations taking into account a range of contextual/macro level factors such as youth unemployment of the country, population density, expenditure on education and health *at the time of the data collection*.

Finally, this paper examines eudaimonic well-being focusing on psychological well-being and one of its key domain—mental health. There are a number of other aspects of youth psychological well-being such as autonomy, personality which future studies on youth well-being should explore in detail.

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Figure 1: Mean score on psychological well-being scale by European countries

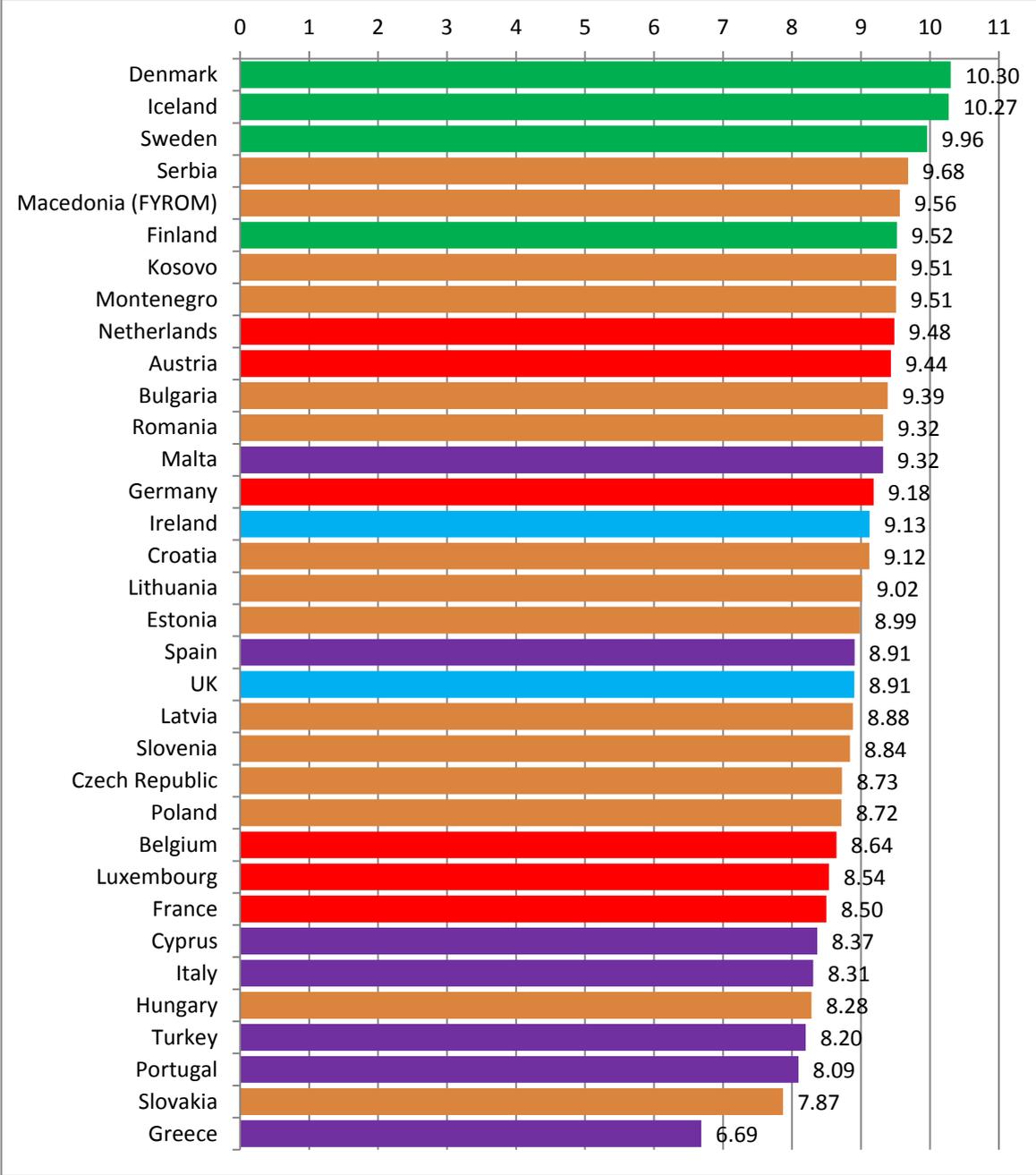


Figure 2: Mean score on youth mental health scale by European countries

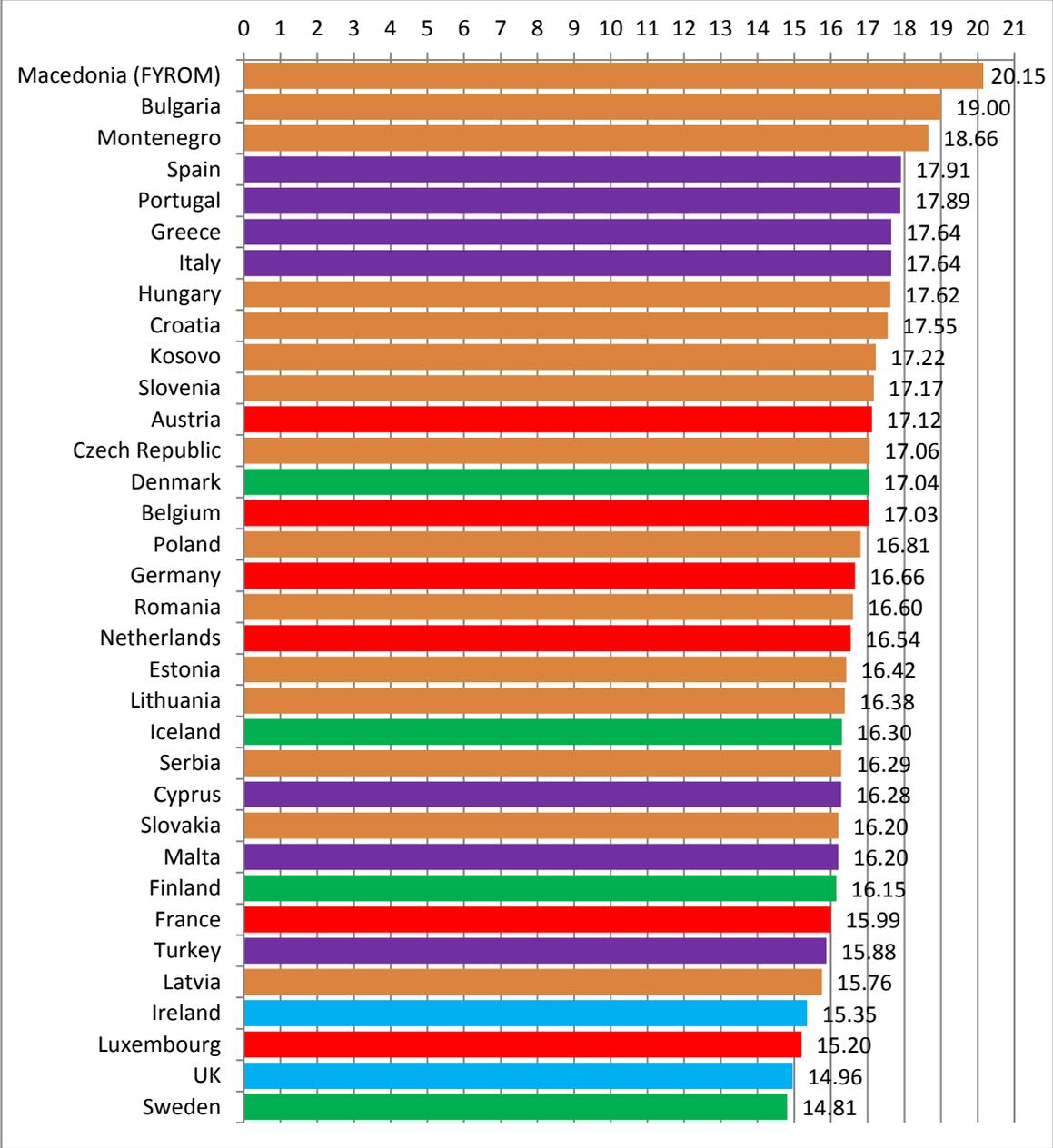


Table 1: Demographic characteristics and youth psychological well-being

<i>Demographic characteristics (comparison group)</i>	<i>N</i>	<i>Mean</i>	<i>Test statistic</i>	<i>Sig., two- tailed</i>
Age	4710	8.98	$r = -0.04$.006
Gender			$t = 0.571$	0.568
Male	2201	9.00		
Female	2509	8.97		
Employment status (Employed)			$F = 28.37$	0.000
Employed	1609	8.97		N/A
Unemployed	627	8.26		0.000
Student	2173	9.25		0.004
family care	215	8.58		0.166
Other	86	8.67		0.811
Household income (lowest quartile)			$F = 5.42$	0.001
lowest quartile	956	8.75		N/A
q2	703	8.99		0.192
q3	738	9.03		0.087
highest quartile	650	9.19		0.002
Perceived income comparing others (better)			$F = 63.57$	0.000
Better	1184	9.39		N/A
Same	2688	8.99		0.000
Worse	735	8.25		0.000
Ability of household making ends meet			$t = 14.51$	0.000
Easily	2476	9.40		
with difficulty	2084	8.48		
Expectations household finances 12 months (better)			$F = 137.24$	0.000
Better	1315	9.38		N/A
Same	2164	9.16		0.016
Worse	817	7.90		0.000
Citizen of county			$t = -1.15$	0.250
Yes	4508	8.99		
No	202	8.81		
Having some disabilities			$t = -4.03$	0.000
Yes	438	8.81		
No	4247	9.10		
Urban density (city)			$F = 7.03$	0.000
Open country	425	9.16		0.355
Village	1411	8.81		0.436
Medium town	1421	9.15		0.082
City	1444	8.94		N/A

Country regions (Nordic)			F=47.49	0.000
Nordic	385	10.00		N/A
UK and Ireland	266	8.98		0.000
Central Europe	816	8.96		0.000
Mediterranean	1087	8.36		0.000
Eastern Europe	2156	9.13		0.000

Table 2: Correlation matrix for the psycho-social factors and youth psychological well-being

	1	2	3	4	5	6	7	8	9	10	11
<i>Accommo. quality (1)</i>	1										
<i>Support network (2)</i>	0.07 ***	1									
<i>Tension old vs. YP (3)</i>	-0.05 ***	-0.03	1								
<i>Interaction fri. neigh. (4)</i>	0.10 ***	0.04*	-0.02	1							
<i>Caring role (5)</i>	-0.10 ***	-0.04**	0.02	-0.08 ***	1						
<i>Satis. country eco. situ. (6)</i>	0.10 ***	0.06***	-0.08***	0.01	-0.02	1					
<i>Public service quality (7)</i>	0.07 ***	0.06***	-0.10 ***	0.14 ***	-0.07 ***	0.09 ***	1				
<i>Neighbourhood quality (8)</i>	0.19 ***	0.04**	-0.10 ***	0.07 ***	-0.09 ***	0.13 ***	0.15 ***	1			
<i>Religiosity (9)</i>	-0.03*	0.05 ***	0.02	-0.07 ***	0.13 ***	-0.01	-0.13 ***	-0.12 ***	1		
<i>Exercise/sports (10)</i>	0.04 **	0.05 ***	-0.01	0.09 ***	0.08 ***	0.09 ***	0.01	-0.02	0.10 ***	1	
<i>Psycho. well-being (11)</i>	0.10***	0.11***	-0.05***	0.09***	-0.02	0.21***	0.12***	0.11***	0.02	0.10***	1
Mean	5.30	4.87	0.83	3.27	0.41	4.28	15.38	15.45	0.92	0.99	8.98
Standard deviation	1.09	0.48	0.69	1.06	0.94	2.37	3.05	2.74	1.04	1.26	2.17

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

Table 3: Demographic characteristics and youth mental health

Demographic characteristics (comparison group)	N	Mean	Test statistic	Sig., two-tailed
Age	4724	16.82	r = -0.06	0.000
Gender			t=5.86	0.000
Male	2205	17.26		
Female	2519	16.44		
Employment status (employed)			F=15.26	0.000
Employed	1617	16.63		N/A
Unemployed	640	16.29		0.672
Student	2158	17.32		0.001
family care	218	15.27		0.004
Other	91	15.74		0.564
Household income (lowest quartile)			F=13.35	0.000
lowest quartile	963	15.76		N/A
q2	709	16.84		0.000
q3	745	16.89		0.000
highest quartile	655	17.11		0.000
Perceived income comparing others (better)			F=44.76	0.000
Better	1183	17.45		N/A
Same	2691	16.91		0.006
Worse	746	15.37		0.000
Ability of household making ends meet			t=11.67	0.000
Easily	2484	17.56		
with difficulty	2088	15.90		
Expectations household finances 12 months (better)			F=31.7	0.000
Better	1324	16.88		N/A
Same	2148	17.28		0.055
Worse	827	15.73		0.000
Citizen of country			t=-0.84	0.399
Yes	4519	16.83		
No	205	16.54		
Having some disabilities			t=-12.19	0.000
Yes	447	14.21		
No	4255	17.11		
Urban density (city)			F=3.67	0.012
Open country	423	17.41		0.019
Village	1417	16.81		0.637
Medium town	1420	16.94		0.253
City	1452	16.57		N/A
Country regions (Nordic)			F=20.46	0.000

Nordic	386	15.87	N/A
UK and Ireland	268	15.10	0.399
Central Europe	819	16.46	0.409
Mediterranean	1094	16.77	0.042
Eastern Europe	2157	17.37	0.000

Table 4: Correlation matrix for the psycho-social factors and youth mental health

	1	2	3	4	5	6	7	8	9	10	11
<i>Accommo. quality (1)</i>	1										
<i>Support network (2)</i>	0.07 ***	1									
<i>Tension old vs. YP (3)</i>	-0.05 ***	-0.03	1								
<i>Interaction fri. neigh. (4)</i>	0.10 ***	0.04*	-0.02	1							
<i>Caring role (5)</i>	-0.10 ***	-0.04**	0.02	-0.08 ***	1						
<i>Satis. country eco. situ. (6)</i>	0.10 ***	0.06***	-0.08***	0.01	-0.02	1					
<i>Public service quality (7)</i>	0.07 ***	0.06***	-0.10 ***	0.14 ***	-0.07 ***	0.09 ***	1				
<i>Neighbourhood quality (8)</i>	0.19 ***	0.04**	-0.10 ***	0.06 ***	-0.09 ***	0.13 ***	0.15 ***	1			
<i>Religiosity (9)</i>	-0.03*	0.05 ***	0.03	-0.07 ***	0.13 ***	-0.01	-0.13 ***	-0.12 ***	1		
<i>Exercise/sports (10)</i>	0.04 **	0.05 ***	-0.01	0.09 ***	0.08 ***	0.09 ***	0.01	-0.02	0.10 ***	1	
<i>Mental health (11)</i>	0.15***	0.10***	-0.05**	0.08***	-0.01	0.14***	0.10***	0.09***	0.07***	0.09***	1
Mean	5.30	4.87	0.83	3.27	0.41	4.28	15.38	15.45	0.92	0.99	16.82
Standard deviation	1.09	0.48	0.69	1.06	0.94	2.37	3.05	2.74	1.04	1.26	4.85

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