Flourishing in Iceland

Content, Prevalence and Indicators

Karen Erla Karólínudóttir

Thesis for the degree of Master of Public Health Sciences
Centre of Public Health
School of Health Sciences
University of Iceland

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Karen Erla Karólínudóttir

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Supervisor: Dóra Guðrún Guðmundsdóttir

Masters committee: Arna Hauksdóttir Hulda Þórisdóttir

Faculty of Medicine

Department of Public Health Sciences

School of Health Sciences

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Abstract

The importance of mental well-being for a thriving society has been well established, and both scholars and politicians have called for actions to improve mental well-being measures to make them applicable for policymaking. Research on mental well-being can be divided in two categories, the hedonic aspect of well-being and the eudaimonic aspect of well-being. The focus of the concept of flourishing includes feelings (hedonic) and function (eudaimonic) in the measurement of mental well-being, combining positive feelings, social functioning, and psychological resources. In a previous study on flourishing in Europe, the highest prevalence was found in Denmark, and the other Nordic countries also scored among the highest. Iceland was not a participant country in the this study. The overall aim of the current study is to examine flourishing in Iceland and its prevalence and predictors. Specific goals are to a) identify prevalence of flourishing in Iceland, b) to compare flourishing results from Iceland with results from other European countries, c) identify factors associated with flourishing in Iceland, such as demographic and economic factors, and d) explore the theoretical structure of flourishing with respect to categories of positive characteristics and positive functioning aspects. Two different study samples were used. The first was from the European Social Survey (Round 6, 2012), a stratified cluster sample of 1,431 Icelandic citizens with 752 (53%) valid responses together with the data from all the 29 countries (N = 54,673). The second sample was from the Health and Well-Being study of Icelanders and consisted of 10,093 individuals of whom 6,783 (67%) responded to a questionnaire. The conceptual framework composed by Huppert and So (2013) was used to measure the 10 features of flourishing; competence, optimism, self-esteem, resilience, positive relationships, positive emotion, engagement, emotional stability, meaning, and vitality. The prevalence of flourishing in Iceland was 42%, the fifth highest in Europe where the total overall prevalence was 26%. High prevalence of flourishing was associated positively with age; those aged 60-69 years old had the highest and those aged 15-19 years old the lowest frequency of flourishing, high education, marriage, employment, high income, and fewer financial worries. The results of the confirmative factor analysis on the Icelandic sample did support the construct of flourishing as having two factors, positive characteristics and positive functioning. The prevalence of flourishing in Iceland is similar to that in other Nordic countries and is among the highest in Europe. There is an implication that culture can have an impact on flourishing. The relationship between demographic factors and flourishing is in line with results on this association with other wellbeing measurements. The results of this study indicate that the flourishing measurement is stable with respect to categories of positive characteristics and positive functioning aspects and seems to be sensitive to changes over time where political and economic changes are also detected.

Ágrip

Rannsóknir hafa sýnt fram á mikilvægi andlegar vellíðanar og bæði stjórnmálamenn og fræðimenn hafa kallað eftir mælitækjum til að mæla andlega vellíðan með það að markmiði að meta árangur stjórnvalda og hafa áhrif á opinbera ákvarðanatöku. Rannsóknum á andlegri vellíðan má skipta í tvo flokka sem fjalla annars vegar um tilfinningar (hedónisma) og hins vegar um virkni (eudaimonisma) . Kenningin um döfnun nær bæði yfir tilfinningar og virkni og því er nauðsynlegt að mælitæki döfnunar mæli bæði tilfinningar og virkni. Fyrri rannsókn á döfnun sýndi hæsta algengi döfnunar í Danmörku og algengi hinna Norðurlandanna var líka með því hæsta sem mældist. Markmið þessarar rannsóknar er að kanna algengi döfnunar á Íslandi og forspárþætti hennar. Nánar tiltekið að A) mæla algengi döfnunar á Íslandi, b) bera algengi döfnunar á Íslandi saman við algengi annarra Evrópulanda c) að skoða forspárþætti döfnunar á Íslandi, svo sem lýðfræðilega og efnahagslega þætti og að d) kanna fræðilegan grunn döfnunar með tilliti til skiptingar hans í jákvæða eiginleika og jákvæða virkni. Tvö gagnasöfn voru notuð, það fyrra Lífsviðhorf Evrópubúa (The European Social Survey), þar sem notað var lagskipt klasaúrtak 1,431 Íslendinga með 752 (53%) svörum ásamt svörum frá öllum 29 þátttökulöndum ESS (N =54,673) við samanburð milli landa. Síðara úrtakið inniheldur 10,093 einstaklinga þar sem 6,783 (67%) svöruðu spurningalista um Heilsu og líðan Íslendinga á árinu 2012. Byggt var á kenningu Huppert og So (2013) um döfnun sem nær yfir 10 þætti, þ.e.; hæfni, bjartsýni, sjálfstraust, seiglu, jákvæð samskipti, jákvæðar tilfinningar, áhugahvöt, tilfinningalegan stöðugleika, tilgang og lífsorku. Algengi döfnunar á Íslandi mældist 42%, fimmta hæsta hlutfall í Evrópu en heildaralgengið mældist þar 26%. Jákvætt samband var milli döfnunar og aldurs þar sem þátttakendur á aldrinum 60-69 ára uppfylltu flestir skilyrði um döfnun en fæstir úr yngsta aldurshópnum (15-19 ára) uppfylltu skilyrðin. Tengsl voru milli þess að dafna og meiri menntunar, hjónabands, að hafa atvinnu, hærri tekna og lítilla fjárhagsáhyggjna. Niðurstöður staðfestandi þáttagreiningar voru í samræmi við fyrri rannsókn með tilliti til skiptingar mælingarinnar í jákvæða eiginleika og jákvæða virkni. Ísland skipast í hóp Norðurlandanna með hátt algengi döfnunar. Samband döfnunar við félagslega og efnahagslega þætti er í samræmi við samband þessara þátta við aðrar vellíðunarmælingar. Niðurstöður rannsóknarinnar benda til þess að mælingin á döfnun sé stöðug og næm fyrir breytingum yfir tíma þar sem einnig má greina pólitískar og efnahagslegar breytingar.

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1 Introduction

> "When I was 5 years old, my mother always told me that happiness was the key to life. When I went to school, they asked me what I wanted to be when I grew up. I wrote down 'happy'. They told me I didn't understand the assignment, and I told them they didn't understand life."

This heartfelt and innocent quote, sometimes ascribed to John Lennon ("They Asked Me What I Wanted To Be When I Grew Up," 2013) describes the public view that happiness is the main goal for satisfaction in life. People grow up to believe that education, love, marriage, and employment will contribute to their well-being and expect happiness or mental well-being to follow. Often along the way, however, the focus of people's lives shifts to economic prosperity and materialism. The use of economic indicators such as Gross Domestic Product (GDP) to measure the progress of policy intervention has been supported by the assumption that economic development will in the end lead to mental well-being of the population (Bergh, 2009). Although GDP has tripled over the past 50 years in the United States, the national level of mental well-being has barely changed during the same period (Easterlin, 2005; Forgeard et al., 2011). A similar pattern can also be seen in other advanced economies (Diener & Seligman, 2004; Helliwell & Putnam, 2004). Consequently, both scholars and politicians have called for actions to improve measures of well-being to make them applicable to policymaking (Diener & Seligman, 2004; Dolan & White, 2007; Layard, 2010). The first step is to find a method to measure mental well-being in a direct, reliable, and valid way.

A recent report from the Commission on the Measurement of Economic Performance and Social Progress (CMEPSP) from 2008 emphasized the necessity to change the focus from economic production to measuring people's' mental well-being (Stiglitz et al., 2009). The New Economics Foundation, based in the United Kingdom, has proposed national accounts of well-being in which the aim was to develop a mental well-being measure to challenge economic indicators used by policymakers (Michaelson et al., 2009). In Iceland, mental well-being is officially a segment of health care; one of the aims of the new "Health Plan of Iceland Until 2020" is to increase the population's well-being (*Velferðarstefna: Heilbrigðisáætlun til ársins 2020*, 2012). Before examining why mental well-being is good for societies, the concept of mental well-being will be discussed.

1.1 Definition and conceptualization of mental well-being

Despite the fact that the World Health Organisation (WHO) defined health in 1948 as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948), the mental health sciences have through the decades focused more on mental disorders rather than on mental well-being (Keyes, 2007; Seligman et al., 2004). One of the reasons for this emphasis on mental disorders may be because of their severity and impact. Major depression is among the most costly health conditions in modern western societies (Schwappach, 2007), and it is estimated to correspond to 1% of the total economy (GDP) of Europe (Sobocki et al., 2006). The term "disability-adjusted life years" (DALYs) is a composite measurement of the number of years lived with disability and life years lost prematurely to death. Mental illness is among the top six causes of DALYs

worldwide, with depression as the most burdensome mental illness and the most burdensome cause for years lived with disability (YLDs) (Whiteford et al., 2013).

Measurements of mental health developed to diagnose mental disorders do not provide information about the level of mental well-being for those who do not have a mental illness. One way to reduce the burden of mental disorders is to glean insight into effective means of prevention, in other words, how to promote mental well-being. A reliable measurement for the whole spectrum of mental health in general should be suitable for measuring population mental well-being in order to determine the epidemiology of mental well-being (Stewart-Brown, 2002). The WHO defined mental health in 2005 as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (WHO, 2005).

Positive mental health was first defined by Marie Jahoda to include aspects of attitudes toward self, growth development, integrated personality, autonomy, perception of reality, and environmental mastery (Jahoda, 1958). Similarly, Ryff (1984) later defined psychological well-being as having self-acceptance, personal growth, a purpose in life, autonomy, positive relations with others, and environmental mastery.

More recently, mental well-being has been defined as positive mental health, the feeling of optimism for the future, self-worth, and relaxed, clear thinking (Stewart-Brown et al., 2009) where the concept of "mental well-being" entails health and happiness, the perception that life is going well, and both positive feelings and function (Huppert, 2009a).

Research on mental well-being can be divided into two perspectives, hedonic and eudaimonic (Crespo et al., 2014; Huppert & So, 2013; Ryan & Deci, 2001). Evidence on these two viewpoints, hedonic and eudaimonic well-being, suggest that mental well-being is multidimensional and that these two aspects are related, but they explain different elements of well-being (Compton et al., 1996; McGregor & Little, 1998; Huppert & So, 2009). Thus, the literature on mental well-being is based on instruments to measure various mental well-being constructs. Here, mental well-being is used synonymously for all constructs discussed below.

The hedonic aspect of mental well-being focuses on striving for maximization of positive feelings and minimization of negative feelings. This aspect is supported by the important goal of every human being to feel good (Fredrickson et al., 2013; Ryan & Deci, 2001).

A widespread way to measure hedonic well-being is to ask people about their level of happiness on a 10- or 11-point scale (Forgeard et al., 2011). Another common way to measure hedonic well-being is to ask people about their satisfaction with life on a 10-point scale. This question can be found in major surveys such as The British Household Panel Study and the German Socio-Economic Panel Study. Both these questions have good face validity and are based on the idea that people around the world know what happiness and life satisfaction are and they are ready to give their opinion about them (Foregard et al., 2011). The assumption made by researchers employing these types of measures is that the best way to measure happiness is to ask people about their subjective evaluation because no extrinsic criterion can ever fully do justice to a personal evaluation of life (Diener & Seligman, 2004).

Despite the benefits of subjective measures of hedonic well-being, they have the obvious drawback in that they do not provide information on how exactly people interpret happiness or life satisfaction. Research on the topic suggests, for example, that people often answer according to their feelings or mood at the time (Seligman, 2011; Veenhoven, 2009). Further complicating the picture is research showing that having children contributes positively to life satisfaction but negatively to happiness (Dolan et al., 2008). The body of research measuring happiness, life satisfaction, and positive and negative affect comes together under the concept of subjective well-being. All of these measures focus on the affective and cognitive evaluation of how life is going (Diener et al.,1995). Research on subjective well-being has found a link between high subjective well-being and good health and longevity (Diener & Chan, 2011; Howell et al., 2007; Lyubomirsky et al., 2005), success in the workplace (Diener, 2012), and good social and romantic relationships (Oishi et al., 2007). The methodology of mental well-being research in the past has been primarily cross-sectional and provides very limited opportunities for causal inference (Diener, 2012; Forgeard et al., 2011).

The eudaimonic aspect of well-being rests on the idea that all people have a need to actualize their potential, develop abilities, and attach meaning to their own behavior (Ryan & Deci, 2001). Eudaimonic well-being is also measured subjectively but it differs from the hedonic aspect by building upon an entirely different philosophical foundation; it asks not about how good life feels but about the good way to live life. According to eudaimonic mental well-being, people should live in accordance with their *daimon*, their true self (Ryan & Deci, 2001). It is important that this self-fulfillment is perceived as accepted and respected by a social reference group. For eudaimonic well-being, the emphasis is therefore on social interaction and the ability to pursue goals (Blasi et al., 2013). Ryff (1984) used the term psychological well-being that covers the eudaimonic perspective of well-being. A measure of psychological well-being is a multidimensional measure of human actualization comprised of six features: self-acceptance, life purpose, personal growth, mastery, autonomy, and positive relatedness (Ryan et al., 2008; Ryff, 2014).

Self-determination theory as proposed by Ryan and Deci (2008) has roots in Aristotle´s philosophy of happiness and the good life as the expression of virtue and is based on the eudaimonic aspect of mental well-being. As in Aristotle's philosophy, the theory states that eudaimonic living is defined as striving for the things that are based on intrinsic motivation and are good in themselves and not for other reasons. For example, wealth is not a good thing in itself but has value only for its use and therefore it is not worth looking for (Ryan et al., 2008). In addition to intrinsic goals, the theory emphasizes autonomy and satisfaction of basic psychological needs, which are relatedness, feeling cared for and connected to others, and competence and the sense of efficacy in both internal and external environments (Ryan et al., 2008). According to self-determination theory, hedonic well-being is a possible outcome of eduaimonic living but not an exclusive one. Another outcome of eudaimonic living is psychological well-being, a sense of meaning and vitality (Ryan et al., 2008).

1.2 Why is mental well-being good for society?

The importance of mental well-being for a thriving society has been well established. There is a correlation between high mental well-being in populations and a flourishing economy and a healthy

democracy (Stoll, 2012; Diener & Seligman, 2004). Populations high in mental well-being have been found to have better health and longer life (Veenhoven, 2008), and health risk behaviour has been found to be less frequent among adolescents high in mental well-being compared to adolescents low in mental well-being (Venning et al., 2013). People with high mental well-being perform better at work (Diener & Seligman, 2004), and high mental well-being has been associated with volunteering and generous and altruistic behaviour (Aknin et al., 2013; Son & Wilson, 2012; Thoits & Hewitt, 2001). There is a relationship between high mental well-being and general trust in other people and trust in key public institutions (Helliwell, 2003; Helliwell & Putnam, 2004). In addition, studies on mental well-being have suggested an association between mental well-being and various health policy operations (Stoll, 2012). There is a correlation between high mental well-being in nations and well-developed health care (Kotakorpi & Laamanen, 2010) and social welfare systems (Pacek et al., 2008), high social trust, and low income inequality (Alesina et al., 2004; Oishi et al., 2011). In one study, when asked about what matters most in life, graduate students said they value mental well-being the most, more than good health, wealth, and love (Diener & Scollon, 2014). This evidence is based on cross-sectional correlation study designs.

It is important to study mental well-being because of its value for people and to monitor changes in mental well-being as a guide for policymakers. Ongoing studies aim to investigate how mental well-being measures can be used as a guide or at least a supplement to previous measures of national progress (Dolan & White, 2007; Hicks et al., 2013). The flourishing well-being measure is a concept in this field (Huppert et al., 2009).

2 Flourishing

2.1 The mental health continuum

Evidence on the distribution of mental states reveals that the absence of mental illness does not equal the presence of mental well-being (Keyes & Haidt, 2003; Keyes, 2005). Mental well-being can be roughly described as normally distributed with flourishing and mental disorder on each end of the curve and moderate mental health at the top of the bell (Huppert, 2009). The definition of flourishing is to experience positive emotion and to be functioning well both socially and psychologically. On the mental health continuum (see Figure 1), symptoms of mental disability and the symptoms of complete mental health, or flourishing, are thus opposites (Huppert, 2009; Keyes, 2002). Most people seem to experience moderate well-being or are languishing and few have serious illness or are flourishing. Languishing is defined as living a life of emptiness, stagnation, and quiet despair (Keyes, 2002). Building on this, the conceptual framework developed by Huppert and So (2013) is based on the criteria of pathological symptoms of depression and anxiety in the sense that each item of their flourishing measure is a mirror opposite of a symptom of depression or anxiety. This approach defines flourishing as exceptional mental health, and with that definition it is possible to identify the prevalence of complete mental health. According to Huppert and So (2013), it is impossible for an individual to have depression or anxiety at the same time as flourishing. Symptoms of flourishing are the opposite of depression and anxiety symptoms, and therefore people cannot be both flourishing and depressed at the same time. The body of knowledge on flourishing and indicators of flourishing could be a guide to how to change the distribution in the well-being continuum so languishing prevalence will decrease and moderate mental health prevalence will develop into flourishing (Huppert, 2009).

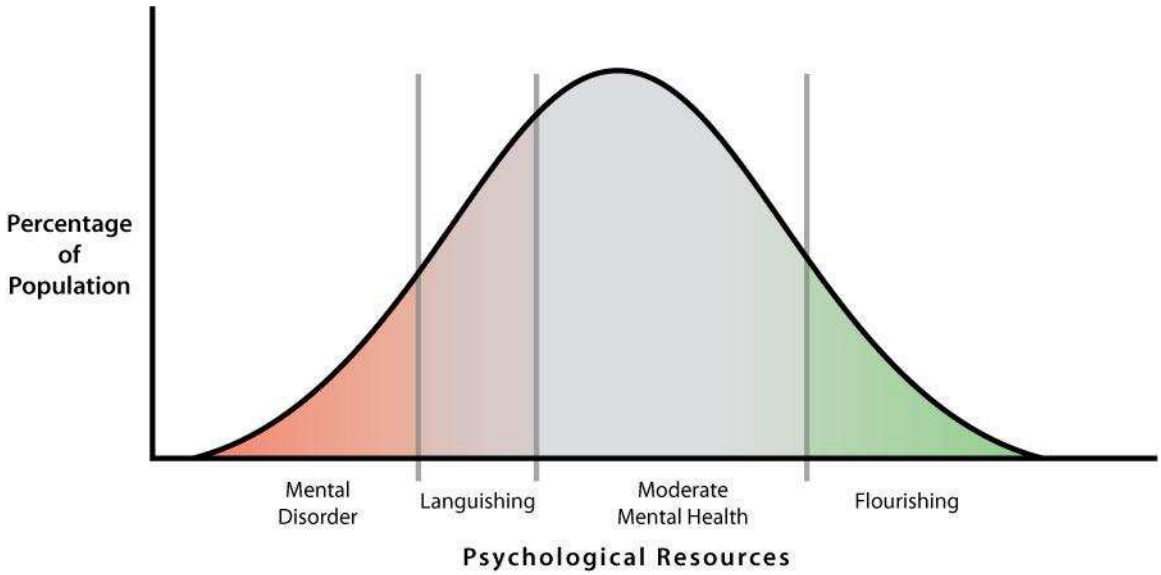

Figure 1. The mental health continuum.

According to Keyes (2007), there is a considerable negative association between flourishing and mental disorder, although it is still possible for an individual to be flourishing and to have an episode of

depression (Keyes, 2002, 2007). Cross-sectional research by Keyes (2007) showed that having anything less than perfect mental health, or flourishing, is associated with disability and impairment. People with moderate mental health functioned better than people who were languishing, but flourishing people functioned better than all others. Complete mental health was strongly associated with low health-care utilization, few physical conditions and chronic physical diseases, low level of health limitations on activities of daily living, few workdays missed, and high psychological functioning (Keyes, 2007). A cross-sectional study of Australian adolescents showed that flourishing had a strong negative connection with risk behavior such as smoking and alcohol consumption but had a positive correlation with physical exercise (Venning et al., 2013).

2.2 Operational definition of flourishing

As described above, Huppert and So (2013) constructed a multidimensional measure of flourishing by finding mirror opposites of pathological symptoms of depression and generalised anxiety disorder (DSM-IV and ICD-10 classifications), the most common of all mental disorders. The focus was placed on mental states rather than physical states and therefore somatic symptoms such as sleep problems and weight loss were not included. It was also considered important that the positive opposites in mental states were applicable and measureable; thus the focus was only on depression and generalised anxiety disorder but not on other mental disorders such as phobias or obsessive-compulsive disorder, which do not have a positive opposite pole, according to the authors. The 10 items of the flourishing measure, each measured with one question, were positive emotion, competence, emotional stability, engagement, meaning, optimism, positive relationships, resilience, self-esteem, and vitality (Huppert & So, 2013).

To follow the practice of classification systems creating a final score by combining items, the flourishing measurement includes categories of excellent mental health. By identifying suitable criteria of each feature of flourishing with a categorical approach, the measurement is suitable for identifying the prevalence of flourishing. In choosing an appropriate cut-off point, the aim was to capture those who score high and thus identify people with exceptionally good mental well-being. Respondents generally had to agree to a positive angle of an item measuring each flourishing feature. The concept of flourishing is divided into two categories, positive characteristics and positive functioning, which combined form the basis of the flourishing measurement. In the following section, the scientific definition and contribution to mental well-being of each feature will be reviewed.

2.3 Ten features of flourishing

2.3.1 Positive emotion

Positive emotion is the only one of the 10 features meant to capture the hedonic aspect of mental well-being, or positive characteristics. The item measuring positive emotion is the question about overall happiness. All the remaining features are categorised as eudaimonic well-being or positive functioning.

2.3.2 Competence

Competence is one of the three psychological needs according to Ryan and Deci's self-determination theory (Ryan & Deci, 2000). Competence is defined as a perceived sense of efficacy regarding both internal and external environments (Ryan et al., 2008). According to the eudaimonian perspective, the sense of mastery of the environment is the fulfillment of people's need to realize their true potential and gain the respect of, and thereby connection with, other people (Deci & Ryan, 2008). Competence is relevant for engagement and mental well-being in employment (Slemp & Vella-Brodrick, 2014). As a part of the flourishing measurement construct, competence is a mirror-opposite feature of concentration and attention problems and diminished ability to make decisions (Huppert & So, 2013).

2.3.3 Emotional stability

Emotional stability is the habit of people to be imperturbable, calm, and not worried or anxious (Hills & Argyle, 2001). As a part of the flourishing construct, emotional stability is a mirror-opposite feature of anxiety, worry, irritability, and feeling wound up, tense, or restless (Huppert & So, 2013). Research has suggested that among personality traits, emotional stability is the biggest predictor of mental well-being (Hills & Argyle, 2001; Vittersø, 2001). Research also suggests that emotional stability can prevent people from developing anxiety or depression when exposed to violent incidents (Ho et al., 2013).

2.3.4 Engagement

Engagement has been defined as a psychological term describing individuals being focused and absorbed in what they are doing (Forgeard et al., 2011). Although engagement is popularly accepted as a fundamental source of human well-being, scientific research has especially focused on the by-products of engagement, such as output, performance, and learning skills. Thus, theories about engagement such as flow (Csikszentmihalyi, 1999) and grit (Von Culin et al., 2014) focus on engagement because it tends to correlate with successful and skilled students and productive and contented workers in the workplace (Eskreis-Winkler et al., 2014; Shernoff et al., 2003). Research on the relationship between hedonic well-being and engagement has shown that the impact on mental well-being depends on the type of passionate engagement. Engagement has been found to interrelate with accomplishment (Kanste, 2011). As a part of the flourishing construct, engagement is a mirror-opposite feature of diminished interest or pleasure in all or almost all activities (Huppert & So, 2013).

2.3.5 Meaning

The human urge to grasp the meaning of life has challenged various philosophers such as Kierkegaard and Nietzsche. Within the context of flourishing, the search for meaning highlights the ontological experience of the individual and defines meaning as the feeling of serving and belonging to something larger than self (Forgeard et al., 2011). The contribution of meaning to mental well-being has been found to be different than that of happiness (McGregor & Little, 1998). For example, having children contributes to levels of meaning for parents but can also reduce their happiness levels (Forgeard et al., 2011). In a recent study, having a **happy life** is connected to having needs and wants fulfilled, while having a **meaningful life** was tied to giving and caring for others. In addition, meaning

has a positive link to worry and stress but a negative link to happiness (Baumeister et al., 2013). Research on spending money on life experiences did show that the effect on mental well-being depended on whether the choice of spending was autonomous or if it was done to get recognition from others. Thus, mental well-being depended on whether the reasons for the spending were meaningful (Zhang et al., 2013). Meaning in life has been associated with reduced risks of Alzheimer's disease and mild cognitive impairment (Boyle et al., 2010) and a reduced risk of mortality among community-dwelling older persons (Boyle et al., 2009). As a part of the flourishing construct, meaning is a mirror-opposite feature of feeling empty and worthless (Huppert & So, 2013).

2.3.6 Optimism

Optimism is a trait that empowers people to maintain positive perceptions and expectations about the future (Gallagher et al., 2013). The prevalence of optimism has been found to be quite high and universal (Gallagher et al., 2013). Indeed the term "optimism bias" describes people's tendencies to overestimate the likelihood of positive events in the future and underestimate likelihood of negative events (Sharot, 2011). This tendency can have an impact on precaution and health behavior, such as parental safety implementation (Rosales & Allen, 2012), sun-protective behavior (Borschmann et al., 2012) and young drivers' perceptions of risk of an accident (White et al., 2011). Research has shown an association between optimism and many positive factors such as self-esteem and resilience (Hei et al., 2013), positive affect (Carver et al., 2010), and physical health (Rasmussen et al., 2009).

Findings from research on optimism and its positive consequences have been diverse. It has been stated that the requirement for positive thinking in people with severe medical or personal conditions is both harsh and ineffective (Ehrenreich, 2010). Others point out the dangers of rosy perceptions when forecasting probable negative outcomes and, for example, cite the role of excessive optimism in the economic recession in the year of 2008 (Power, 2013). The expectation of good outcomes in the future nonetheless motivates individuals and increases the odds of success, so that expectations come to fruition via self-fulfilling prophesies (Keyes & Haidt, 2003). Researchers have even speculated that human optimism has been an influence of evolution (Varki, 2009). As a part of the flourishing construct, optimism is a mirror-opposite feature of bleak and pessimistic views of the future (Huppert & So, 2013).

2.3.7 Positive relationships

Relatedness is one of the three psychological needs, according to Ryan and Deci's self-determination theory (Ryan & Deci, 2000). Positive relationships are also defined as the belief that one is appreciated and loved (Forgeard et al., 2011). The need for belonging and personal connections has been established as one of the most important for human beings to flourish (Baumeister & Leary, 1995; Powdthavee, 2008). Social interaction has been shown to be the best single predictor of mental well-being (Forgeard et al., 2011; Caunt et al., 2013; Diener et al., 2004). When investigating very happy people, Diener & Seligman (2002) found that the most important factor in being very happy was positive social relationships. Social support has positive effects on health and longevity (Diener & Seligman, 2004) and, in particular, having social support predicts longevity (Brown et al., 2003; Diener & Seligman, 2004). Even social activity ranked as "weak ties" (Sandstrom & Dunn, 2014), such as

interaction with schoolmates and “liking” on Facebook, can have a significant effect on mental well-being (Antoci et al., 2014; Sandstrom & Dunn, 2014). As a part of the flourishing construct, positive relationships are a mirror-opposite feature of being socially ineffective and having meaningless relationships (Huppert & So, 2013).

2.3.8 Resilience

Resilience occurs when people adapt positively in response to adversity, in particular trauma and challenging life circumstances (Waller, 2001). Resilience has been defined as a process, trait, or outcome, and most definitions are based on concepts of positive adaptation to or during times of adversity (Fletcher & Sarkar, 2013; Richardson, 2002). The ability to cope with difficulties in life is important and also contributes to global well-being in less challenging times. Resilient individuals tend to be more optimistic (Hei et al., 2013) and to be able to experience more positive affect when doing a stressful task as compared with those who are not resilient (Xing & Sun, 2013). Resilience does not prevent vulnerability to challenging or difficult circumstances but does distinguish those who can successfully cope from those who cannot (Fletcher & Sarkar, 2013; Waller, 2001) Thus, some even argue that people who have successfully gone through difficulties in life have developed a greater ability to face adversity than people which have not been forced to cope with such difficulties (Seery et al., 2010). Khanlou and Wray state that there is a policy gap in promoting resilience in Canada that has to be filled and that it should be done on a whole-community level (Khanlou & Wray, 2014). As a part of the flourishing construct, resilience is a mirror-opposite feature of difficulty in controlling anxiety and worry (Huppert & So, 2013).

2.3.9 Self-esteem

Self-esteem is the value people place on themselves, an evaluative perception of global self-worth (Baumeister et al., 2003; Orth & Robins, 2014). Self-esteem has been a subject of some controversy throughout research history. In a review of self-esteem research by Baumeister et al. (2003), self-esteem was painted as a concept that was adopted by some American policymakers who believed that low self-esteem was at least partly the cause of social problems such as drug abuse, teen pregnancy, and crime. They hoped that investment in self-esteem enhancement programs would be a resolution for these vast problems (Baumeister et al., 2003). Later researchers, mostly using longitudinal methods, have found various associations with self-esteem (Orth & Robins, 2014). There is a clear relationship between happiness and self-esteem (Furnham & Cheng, 2000; Orth et al., 2012; Shackelford, 2001). High self-esteem has a positive association with job satisfaction and job success (Kuster et al., 2013) and satisfaction with couple relationships (Erol & Orth, 2014).

A prospective study by Trzesniewski et al. (2006) showed that adolescents with low self-esteem, as compared with those with high self-esteem, had worse economic prospects, poorer physical and mental well-being, and higher levels of criminal behavior as adults (Trzesniewski et al., 2006). Low self-esteem does predict anxiety and depression (Sowislo et al., 2013). People with high self-esteem, compared to people with low self-esteem, are more willing to speak up, criticize, and offer alternative routes of action within a group (LePine & Van Dyne, 1998). Studies show that self-esteem might increase social support but not vice versa (Marshall et al., 2014).

Research on the effect of self-esteem on general school performance has shown mixed results; some researchers have found a positive association (Davies & Bremer, 1999), but others have found that when predictions of socioeconomic status and IQ were taken into account, self-esteem hardly improved accuracy of predictions (Rubin et al., 1977). The direction of the potential relationship is still not known; academic productiveness might just as well lead to higher self-esteem (Rosenberg et al., 1989). Swann et al. (2007) suggest using both broader and more specific views when issuing self-views: specific views to match the specificity of predictors and broader to include self-concept and self-verification (Swann et al., 2007). As a part of the flourishing construct, self-esteem is a mirror opposite feature of ideas of guilt and worthlessness and reduced self-esteem and self-confidence (Huppert & So, 2013).

2.3.10 Vitality

Vitality is defined as a sense of physical and psychological energy that individuals exercise for themselves and for life pursuits (Ryan et al., 2008). Vitality contributes both to psychological and physical well-being (Ryan & Frederick, 1997). By measuring subjective vitality it is possible to capture people's perception of energy needed to complete ordinary tasks and thereby the feeling that life is manageable. Importantly, subjective vitality seems not to be enhanced by mere rest, food, and inactivity but by a fulfilling activity. For example, light exercise can increase feelings of energy more than snacking does (Ryan & Frederick, 1997). Levels of passion for tasks have been shown to affect subjective vitality; people with harmonious passion relative to non-passionate and obsessively passionate people had an increase in subjective vitality over a 1-year period (Philippe et al., 2009). As a part of the flourishing construct, vitality is a mirror-opposite feature of reduced energy and increased fatigability (Huppert & So, 2013).

3 Mental well-being of nations

Mental well-being has not only been associated with socioeconomic variables but also with geographic and environmental variables (Brereton et al., 2008). As stated above, there is a weak positive relationship between income and mental well-being within nations, but between nations the relationship is stronger, with richer nations reporting higher mental well-being than poor nations do (Diener et al., 2010). There are many anomalies in this relationship; Guatemala, Colombia, Mexico and other countries in South America report greater mental well-being than the relationship between income and mental well-being would predict. On the other hand, mental well-being in countries in Eastern Europe is lower than GDP would suggest. Rich nations in Northern Europe report even more mental well-being than their high GDP would predict (Seligman, 2011). In addition, there is a divergence of declining marginal effects of income on mental well-being between nations. Thus, increase in income does contribute to an increase in mental well-being among poor people, but this contribution lessens as income grows (Easterlin, 2013).

Nations high in mental well-being tend to be free democracies that promote free choice (Frey & Stutzer, 2000; Inglehart et al., 2008). They tend to have better welfare systems and healthcare systems (Diener & Seligman, 2004). Free press, high social capital, and a healthy environment predict mental well-being among nations (Tandoc et al., 2013). There is some evidence that government attempts to increase individual mental well-being are fruitful. For example, municipalities in the Netherlands have succeeded in improving mental well-being of chronically ill people by activity and social programs and at the same time reducing consumption of care (Boelhouwer & van Campen, 2013).

The results of previous research by Huppert and So (2013) revealed that the prevalence of flourishing across Europe in 2004 varies from 41% of the population in Denmark to less than 10% in Portugal, Slovakia, and the Russian Federation. When countries were compared across the different features, considerable differences were revealed. Some countries, such as Portugal and Slovakia, showed consistently low rankings while others, such as Denmark, showed consistently high rankings. Furthermore the neighbouring countries France and Spain had markedly different rankings across features; Spain scored highest on self-esteem but France lowest, while France scored considerably higher on engagement than Spain did (Huppert & So, 2013).

4 Demographic factors and mental well-being

Although studies show that women report higher mental well-being than men do (Alesina et al., 2004; Zweig, 2015), gender differences sometimes disappear when other factors are controlled for (Dolan et al., 2008; Van den Berg & Ferrer-I-Carbonell, 2007). Van der Praag and Ferrer-i-Carbonell (2010) found gender differences in mental well-being across nations; in the United States women reported higher mental well-being than men did, but in Russia men reported higher mental well-being than women did. On the other hand, there was no gender effect found in Latin America (Van Praag & Ferrer-I-Carbonell, 2010).

Research on mental well-being and age indicates an U-shaped relationship in which younger and older people score higher than the middle aged (Blanchflower & Oswald, 2008; Clark, 2003; Di Tella et al., 2003; Van Praag & Ferrer-I-Carbonell, 2010). There is, however, some evidence that this U-shaped relationship does not appear in the Icelandic population, in which the relationship has been found to be more linear, with people scoring higher on mental well-being with higher age (Gudmundsdottir, 2013). There is some evidence that number of years of education is associated with higher mental well-being both within countries (Borooah, 2005; Gerdtham & Johannesson, 2001; Huppert & So, 2009) and across countries (Fahey & Smyth, 2004; Hudson, 2006). Some studies have found the relationship between education and mental well-being to be indirect, for example, with more education leading to improved health (Gerdtham & Johannesson, 2001). Others have found no significant association between mental well-being and education (Flouri, 2004; Haller & Hadler, 2006), and some even find a negative relationship (Baker et al., 2005; Thoits & Hewitt, 2001).

Married people repeatedly score higher on well-being measures than do single or divorced people (Blanchflower & Oswald, 2011; Helliwell, 2003; Stoll, 2012; Huppert & So, 2009), and unemployment shows a consistent negative relationship with mental well-being (Blanchflower & Oswald, 2011; Dolan et al., 2008; Haller & Hadler, 2006; Wolbring et al., 2013). The direction of this last relationship remains somewhat unclear, because people high in mental well-being are less likely to become unemployed than people low in mental well-being and if they do, they tend to get a new job more quickly (Dolan & White, 2007).

In addition, perceived low socioeconomic status correlates positively with low mental well-being (Barahmand et al., 2013; Lovasi et al., 2009; Wang & Zhang, 2006). Most studies on income and mental well-being suggest a weak positive relationship (Dolan et al., 2008; Frey & Stutzer, 2000; Zuzanek, 2013). Less is known about the relationship of feelings towards household income and mental well-being. Research on debt finds that debt other than mortgage debt is associated with increased levels of psychological distress (Brown et al., 2005). Research on mental disorders showed that the relationship between mental disorders and low income was mediated by debt (Jenkins et al., 2008). A study by Gudmundsdóttir (2013) conducted in Iceland before and after the economic collapse in the year 2008 found that no economic factor predicted mental well-being apart from the experience of financial difficulties. The perception of difficulty to make ends meet correlated with lower mental well-being (Gudmundsdottir, 2013).

5 Summary

It is important to measure mental well-being on a national level for society as a whole, because it measures what people really value. Mental well-being rests on two different categories, the hedonic aspect (positive affect) and the eudaimonic aspect (positive functioning). The construct of flourishing covers both aspects and is meant to capture the high end of the mental-health continuum, that is, those who score exceptionally high on mental well-being.

The flourishing measure of Huppert and So (2013) was constructed by finding mirror opposites of pathological symptoms of depression and generalised anxiety disorder, and it is composed of 10 features: competence, emotional stability, engagement, meaning, optimism, positive emotion, positive relationships, resilience, self-esteem, and vitality. Research on the relationships among demographic factors and flourishing is lacking. In a previous study on flourishing across Europe conducted in 2013 with data from the European Social Survey from 2006, Iceland was not a participant country. However, with the new round of the European Social Survey data (Round 6, 2012), it is possible to investigate the prevalence of flourishing in Iceland as compared with other European countries and further refine the flourishing measurement.

Aim

The overall aim of this study is to examine the flourishing measurement within an Icelandic context. More specifically to

a) identify prevalence of flourishing in Iceland,

b) compare flourishing results from Iceland with results from other European countries

c) identify factors associated with flourishing in Iceland, such as demographic and economic factors and

d) explore the theoretical structure of flourishing in Iceland with respect to categories of positive characteristics and positive functioning aspects.

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Article

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Flourishing in Iceland

Content, Prevalence and Indicators

Karen Erla Karólínudóttir (1), Arna Hauksdóttir (1), Hulda Þórisdóttir (2), Felicia Huppert (3,4), Kai Ruggeri (3) Dóra Guðrún Guðmundsdótir (1,3,5),

1) Centre of Public Health Sciences, University of Iceland, Reykjavík, Iceland
2) Faculty of Political Science, University of Iceland, Reykjavík, Iceland
3) Well-being Institute, University of Cambridge, UK
4) Institute for Positive Psychology and Education, Sydney, Australia
5) The Directorate of Health in Iceland, Reykjavik, Iceland

Correspondence: Karen Erla Karólínudóttir, Centre of Public Health Sciences, University of Iceland, Stapi v/Hringbraut, 101 Reykjavík, Iceland kek5@hi.is

Abstract

Background: The importance of mental well-being for a thriving society has been well established, and both scholars and politicians have called for actions to improve mental well-being measures to make them applicable for policymaking. Research on mental well-being can be divided in two categories, the hedonic aspect of well-being and the eudaimonic aspect of well-being. The focus of the concept of flourishing includes feelings (hedonic) and function (eudaimonic) in the measurement of mental well-being, combining positive feelings, social functioning, and psychological resources. In a previous study on flourishing in Europe, the highest prevalence was found in Denmark, and the other Nordic countries also scored among the highest. Iceland was not a participant country in the study.

Aims: The overall aim of this study is to examine flourishing in Iceland and its prevalence and predictors. Specific goals are to a) identify prevalence of flourishing in Iceland, b) to compare flourishing results from Iceland with results from the other European countries, c) identify factors associated with flourishing in Iceland, such as demographic and economic factors, and d) explore the theoretical structure of flourishing with respect to categories of positive characteristics and positive functioning aspects.

Methods: Two different study samples were used. The first was from the European Social Survey (2012 Round 6), a stratified cluster sample of 1,431 Icelandic citizens with 752 (53%) valid responses together with the data from all the 29 countries (N = 54,673). The second sample was from the Health and Well-Being study of Icelanders 2012 and consisted of 10,093 individuals of whom 6,783 (67%) responded to a questionnaire. The conceptual framework composed by Huppert and So (2013) was used to measure the 10 features of flourishing; competence, optimism, self-esteem, resilience, positive relationships, positive emotion, engagement, emotional stability, meaning, and vitality.

Results: The prevalence of flourishing in Iceland was 42%, the fifth highest in Europe where the total overall prevalence was 26%. High prevalence of flourishing was associated positively with age; those aged 60-69 years old had the highest and those aged 15-19 years old the lowest frequency of flourishing , high education, marriage, employment, high income, and fewer financial worries. The results of the confirmative factor analysis on the Icelandic sample did support the construct of flourishing as having two factors, positive characteristics and positive functioning.

Conclusions: The prevalence of flourishing in Iceland is similar to that in other Nordic countries and is among the highest in Europe. There is an implication that culture can have an impact on flourishing. The relationship between demographic factors and flourishing is in line with results on this association with other wellbeing measurements. The results of this study indicate that the flourishing measurement is stable with respect to categories of positive characteristics and positive functioning aspects and seems to be sensitive to changes over time where political and economic changes are also detected.

Introduction

The strong relationship between mental well-being and a thriving society has been well established. There is a correlation between high mental well-being in populations and a flourishing economy and a healthy democracy (Diener et al., 2004; Stoll, 2012). High mental well-being in nations is associated with well-developed health care (Kotakorpi & Laamanen, 2010) and social welfare systems (Pacek & Radcliff, 2008), high social trust (Helliwell, 2003; Helliwell & Putnam, 2004), and low income inequality (Alesina et al., 2004; Oishi et al., 2011).

The most common measurements of mental health were developed to diagnose mental disorders. However, those measurements do not provide information about the level of mental well-being for those who do not have a mental illness. A reliable measurement for the whole spectrum of mental health in general should be suitable for measuring population mental well-being in order to evaluate the prevalence of positive mental well-being (Stewart-Brown, 2002). Reliable measures for measuring the determinants of high mental well-being may also be useful.

Huppert and So (2009) characterized exceptional mental well-being as flourishing. Flourishing is defined as the opposite of pathological symptoms, which includes individual's perception that life is going well, covering both positive feelings and functioning and is multidimensional (Huppert & So, 2009). The operational definition of flourishing developed by Huppert and So (2013) is based on defining the symptoms opposite to pathological symptoms of depression and anxiety as symptoms of positive well-being. Huppert and So (2013) build their definition of flourishing on the opposite of the symptoms that are used to diagnose depression and anxiety according to the DSM-4 and ICD-10. In their analysis they found 10 characteristics that are used to diagnose depression and anxiety and 10 opposites, which are competence (concentration and decision making problems), emotional stability (anxiety, worry, tension, restlessness), engagement (diminished interest or pleasure in activities), meaning (feeling empty and worthless), optimism (bleak and pessimistic views of future), positive emotion (negative emotion), positive relationships (socially ineffective), resilience (difficulty in controlling anxiety and worry), self-esteem (worthlessness and reduced confidence), and vitality (reduced energy and increased fatigability). Individuals can be said to be flourishing if they perceive that their life is going well (Huppert & So, 2009). Thus, flourishing is a concept that combines hedonic and eudaimonic aspects of mental well-being and specifically includes those individuals who have exceptional mental well-being.

The prevalence of flourishing across Europe in 2006 varied from 41% in Denmark to less than 10% in Portugal, Slovakia, and the Russian Federation (Huppert & So, 2013). A previous study by Huppert and So (2009) on flourishing in Europe found that demographic factors such as age, education, marital status, income, and self-reported health were associated with levels of flourishing, but these associations varied among countries and regions.

Information on flourishing in Iceland is lacking because Iceland was not a participating country in the aforementioned study. In the present study, a new set of data from 2012, including data from Iceland is used to further explore the prevalence of flourishing in Europe, flourishing in Iceland by demographic factors, and the theoretical structure of the flourishing measurement.

Measures and methods

Data and participants

This study was based on two data sets: 1) the Icelandic part of the 2012 European Social Survey (ESS Round 6, N = 752) together with the data from all the 29 countries (N = 54,673) and 2) the Health and Well-Being Study, based on an Icelandic sample from 2012 (N = 6,783). The ESS is an academically driven survey that aims to chart Europe's political, social, and moral landscape, and it has provided cross-sectional data since 2001 (six data collection waves). The survey involves strict random probability sampling and participation in an hour-long face-to-face interview (European Social Survey, 2013). The Icelandic sample in this study was a stratified random sample retrieved from the Icelandic population. Total size of the sample was 1,431 participants and the response rate was 53% (752 valid interviews). Age ranged from 15 to 90 years (M = 44.18 years; SD = 18.69). Gender distribution was equal; there were 360 male participants (49.7%) and 365 females (50.3%). For comparison among different countries, data from respondents from all 29 countries participating in the European Social Survey in 2012 (Round 6) were used.

The Health and Well-Being Study in Iceland was a panel survey, conducted by mail by the Public Health Institute in 2007 and 2009 and the Directorate of Health in Iceland in 2012. The sample was randomly chosen from the Population Register in Iceland to represent adults aged 18-79 years old living in Iceland. The sample was stratified to ensure sufficient participation of all age groups and persons living in both urban and rural areas. In this study, data from the 2012 wave were used. The net sample in 2012 consisted of 10,093 individuals of whom 6,783 (67.2%) responded to the questionnaire. Sample 2 thus included 6,783 respondents, aged 18 to 84, with the mean age being 45.58 years (SD=16.96). There were 3,132 male respondents (46.2%) and 3,646 female respondents (53.8%) in the sample.

Flourishing measurement in the European Social Survey

A measurement of flourishing, composed by Huppert and So (2013) was included in the well-being module of ESS Round 6. The well-being module of ESS Round 6 is a revised version of the well-being module of ESS Round 3. Based on an exploratory factor analysis of ESS Round 3, Huppert and So (2013) divided the concept into two categories: positive characteristics and positive functioning, which combined form the basis of the flourishing measurement. To ensure compatibility of the current analyses with the work of Huppert and So (2013), we employed the same method for measuring flourishing as Huppert and So used in their study using data from ESS Round 3. Items from the European Social Survey (Round 6) used as flourishing indicators can be seen in Table 1. Only a few amendments were made to their original 10 items. For positive relationships they used "There are people in my life who really care about me", and instead of the three-variable measurement we used for engagement they used the one item "I love learning new things". The reason for these amendments is that in the study of Huppert and So (2013) the responses for these two items were overly positively skewed.

Criteria for each feature, scale, and mean can be seen in Table 2. Each feature was re-coded into a binary variable to define respondents who met the criteria of the feature and those who did not. Overall, respondents were required to say they agree with positive statements of items or that they feel positively all or almost all of a given time to meet the criteria for the measuring items.

To meet the criteria for diagnoses of depression or anxiety there are some characteristics that need to be met. Similarly, to meet the criteria for being flourishing, respondents had to meet the criteria of all but one of the six features composed of positive characteristics: positive emotion, optimism, resilience, self-esteem, emotional stability, and vitality, and meet the criteria of all but one of the four remaining features that comprise positive functioning: engagement, meaning, competence, and positive relationships. In addition all flourishing respondents had to meet the criteria for positive emotion.

The flourishing measurement is supposed to capture respondents at the high end of the mental well-being spectrum, and therefore the authors defined the cut-off point for each of the criteria as above the sample mean (Huppert & So, 2013). To ensure compatibility, all cut-off points and criteria are the same as proposed by Huppert and So (2013). Although the mean for each feature in the Icelandic sample is not below the criteria for every feature, the total mean of all participating European countries is. This reflects that the prevalence of well-being in Iceland is above the mean prevalence in Europe. It is also worth highlighting that the two features using new measuring items in this study, positive relationships and engagement, have a mean below the criteria cut-off point. Thus, they are not overly positively skewed.

Demographic variables, ESS data

Age was categorised by 10-year intervals, except for the youngest (15 – 19 years) and oldest (70 – 90 years) groups. This exception was made to ensure similar percentages of respondents in each age group. Marital status was categorized into 1) legally married/legally registered civil union and cohabiting respondents, 2) widowed respondents not currently cohabiting, and 3) single and divorced respondents. Education had three categories: 1) basic education, 2) secondary and vocational education, and 3) university education. For employment a question about main activity last 7 days was used. The three recoded categories used were 1) unemployed, both looking and not looking for job 2) in a paid work 3) education, sick or disabled, retired or housework. Income was recoded from a household income variable with 10 categories, each having a 10th decile of household income. The categories used were low (first 10th decile through the 2nd decile) with 33.3% of the sample, middle (3rd through the 5th decile) with 36.9% of the sample, and high (6th through the 10th decile) with 29.5% of the sample. A measure of feeling towards household income was also included: “Which of the descriptions on this card comes closest to how you feel about your household income nowadays?” with the response alternatives: “Living comfortably on present income”, Coping on present income”, “Finding it difficult on present income” and “Finding it very difficult on present income”. For the analyses, the two last categories on feeling towards present household income were combined.

Health and Well-Being in Iceland

To explore the structure of the flourishing measurement, items similar to each feature of the measurement were obtained from the Icelandic Health and Well-Being questionnaire. The questions used as flourishing indicators in both data sets can be seen for comparison in Table 3.

The questionnaire included identical items for positive emotion, self-esteem, and competence. The items for emotional stability and vitality were also the same but had a different time frame as a reference (past 2 weeks instead of in the last week). Items for optimism, resilience, positive relationships, meaning, and engagement are similar but not completely the same. Scale and criteria for each Health and Well-Being item can be seen in Table 4.

Age was categorised by 10-year intervals except for the youngest (18 – 29 years) and oldest (70 - 79) group. Marital status had six categories: single, committed, cohabiting, married, divorced, and widowed. Education had three categories: 1) basic education, 2) secondary and vocational education, and 3) university education. Income was recoded from a household income variable into three groups: low in 33.3% of the sample, middle in 36.9% of the sample, and high in 29.8% of the sample. The question measuring feelings towards household income was about feelings towards the ability to make ends meet in the last 12 months, measured on a 5-point Likert scale from (1) “Very easy” to (5) “Very difficult”.

Statistical analysis

ESS data were used to compare prevalence in Europe. The percentage of respondents meeting the criteria of each feature was calculated and ranked by country. Thus, the country that is marked 1 had the highest prevalence of the feature among all the 29 participating countries. In addition, countries were ranked by flourishing prevalence.

The prevalence of flourishing by demographic variables was calculated in each data set and differences explored using a Chi-square test. A logistic regression analysis was conducted on the Health and Well-Being data. Variables were entered into the model in this order: gender, age, marital status, education, employment, real income, and financial difficulty. ESS data were not used because of the small sample size.

To explore the theoretical structure of flourishing with respect to categories of positive characteristics and positive functioning aspects, correlation of flourishing features was calculated and confirmatory factor analysis was conducted on ESS data. Prevalence of the 10 flourishing features was calculated in both data sets and analysed by demographic variables.

All statistical analysis was done with the statistical software SPSS (ed. 17) except for the confirmatory factor analysis, which was done with the open source statistical software R.

Standard ESS techniques of weighted data were used to ensure that the sample was representative of its population. The ESS data set comes with two different weights that were used in different procedures. Design weight was used because the sample design did not give all individuals aged 15 or older the same chance of selection. The design weight corrects for these slightly different selection probabilities. Because the ESS sample sizes are similar but the size of the population in

different countries varies a lot, a population-size weight was used when analysing data of all the 29 countries. The population-size weight corrects for different population sizes so that the smaller countries are not over-represented when combined data are used. Similarly, a weight was used to correct for different selection probabilities and skewed response rate by age and gender and in the Health and Well-Being data.

Results

Flourishing by country

The total prevalence of flourishing in Europe was 26.1%, the prevalence of flourishing in Iceland was 41.9%, ranking of flourishing prevalence by country can be seen in Figure 1. Denmark perched at the top with 54% of the respondents meeting the flourishing criteria. Iceland had the fifth largest ratio (42%) of flourishing respondents in Europe. Ukraine ranked the lowest with 15% of the respondents meeting the criteria of flourishing.

The ranking of countries on each feature can be seen in Table 5. Compared to the other European countries, Iceland had the largest percentage (81%) of respondents meeting the criteria of emotional stability and the second largest percentage (78%) of positive emotion. The lowest ranking of all features is for self-esteem, in which Iceland was ranked 18th, with 78% of the respondents meeting the criteria. The flourishing profile of Iceland is demonstrated in Figure 2.

Table 6 shows the percentage of respondents meeting the criteria of each feature of the flourishing measurement in both Icelandic data sets. The overall percentage was highest for meaning, 89% in the ESS sample and 83% in the Health and Well-Being sample. Although Iceland's ranking is lowest for self-esteem when compared with other European countries, fewest respondents meet the criteria of flourishing for engagement (48%, ESS) and vitality (41%, Health and Well-Being) when comparing thresholds across features.

Flourishing by demographic variables

Flourishing by demographic variables can be seen in Table 7 for ESS Icelandic data and in Table 8 for Health and Well-Being data. The highest prevalence for flourishing was seen in the age category 60-69 in both data sets. Those who were married had a higher likelihood of being flourishing compared with others. People with a university education were more likely to be flourishing compared to other educational groups. In addition, those who had higher income and positive feelings towards household income or less financial difficulty had a higher likelihood of being flourishing.

The results from a logistic regression model for the Health and Well-Being data can be found in Table 9. Compared to people aged 18 to 29 years old, those 50 to 59 years old, (OR= 1.45, CI= 1.08 - 1.9,), 60 to 69 years old (OR= 1.61, CI= 1.17 - 2.22), and 70 years or older (OR= 1.81, CI= 1.26 - 2.60) had higher odds of being flourishing. Compared to those who were single, people in a relationship, (OR= 1.69, CI= 1.11-2.56), cohabiting respondents (OR= 1.71, CI= 1.27-2.31), and married respondents (OR= 1.93, CI= 1.44-2.58) had a higher likelihood of being flourishing. Employed respondents had a higher odds ratio of being flourishing compared to unemployed respondents (OR= 1.71, CI= 1.19 - 2.46). Respondents reporting high income had higher odds of being flourishing compared to low-income respondents (OR= 1.28, CI= 1.01-1.61). Compared to people reporting it very difficult to make ends meet, respondents who found it neither difficult nor easy (OR= 2.47, CI= 1.64-3.70), easy (OR= 3.40, CI= 2.24-5.15), or very easy (OR= 3.47, CI= 2.26-5.32) had higher odds of being flourishing. The model explains 10.6% of the variance.

Exploring the theoretical structure of flourishing in Icelandic ESS data

Correlation of all features of flourishing can be seen in Table 10. The highest correlation was between engagement and positive relationships (r = 0.46, $p < 0.01$) and the lowest between meaning and resilience (r = 0.11, $p < 0.01$).

A confirmatory factor analysis was done on the Icelandic sample of the Round 6 ESS data in this study to investigate the base of the flourishing measurement, the two factors labelled “positive characteristics” and “positive functioning”. The results revealed two factors that can be seen in Table 11. The standard fit indices Comparative Fit Index and Non-Normed Fit Index are above 0.90, which indicates a good empirical fit, and the Root Mean Square Error of Approximations (RMEA) is acceptable, between 0.05 and 0.08 according to the guideline for a good empirical fit (Browne & Cudeck, 1993; Bryne, 1994).

As stated above the percentage of respondents meeting the criteria of each feature of the flourishing measurement in both data sets can be seen in Table 6. Across the features that are identical in both data sets—positive emotion, self-esteem, and competence—the percentage of people meeting the flourishing criteria was higher in the ESS sample compared to the Health and Well-Being sample. The percentage of people meeting the flourishing criteria was the same for optimism and across all other features except for positive relationships, resilience, and engagement. For these features the percentage of people meeting the flourishing criteria was higher in the ESS sample compared to the Health and Well-Being sample. The total flourishing prevalence was similar in both data sets, 42% in the ESS data and 43% in the Health and Well-Being data.

Discussion

The prevalence of flourishing in Iceland using ESS data was 42%, the fifth highest in Europe where the total prevalence of flourishing in Europe was 26%. Denmark and Switzerland have the greatest prevalence of flourishing compared to the other European countries participating in the ESS, followed by Norway, Germany, Iceland, and the Netherlands. Ranking by the same method Huppert and So (2013) used in their study places Denmark and Switzerland similarly on top but with Austria, Finland, Norway, and Ireland coming sequentially thereafter. The high mental well-being of Denmark has been well established (Biswas-Diener et al., 2010; Huppert & So, 2013; Hussain, 2014), and Switzerland is also known for high mental well-being (Helliwell. et al. 2015; Huppert & So, 2013; Veenhoven, 2005). The top countries all have good governance, high technical quality of governance, and high democratic quality, which have been linked to high mental well-being (Ott, 2010; Ott, 2011).

The Russian Federation ranks second to the bottom now as it did in ESS Round 3, but Ukraine is at the bottom in this study where Portugal was in Round 3. Portugal now ranks the third lowest. The low ranking of the Russian Federation is congruent with previous research on mental well-being (Blanchflower, 2001). Ukraine ranked the fifth lowest in ESS Round 3, and the drop to the bottom can most likely be explained by the political turbulence in the country prior to the data sampling in 2012 (Kudelia & Kuzio, 2015).

Overall, our findings on flourishing features by demographic variables are congruent with previous studies on the topic (Dolan et al., 2008). People seem to fare better with higher education (Borooah, 2005; Gerdtham & Johannesson, 2001), employment compared with unemployment (Blanchflower & Oswald, 2011; Dolan et al., 2008; Gudmundsdottir, 2013; Haller & Hadler, 2006; Wolbring et al., 2013), high income compared with low income (Dolan et al., 2008; Frey & Stutzer, 2000; Zuzanek, 2013), good feelings towards household income (Brown, Taylor, & Price, 2005), and being married versus separated (Blanchflower & Oswald, 2011; Gudmundsdottir, 2013; Helliwell, 2003; Stoll, 2012).

Flourishing in Iceland

The prevalence of flourishing in Iceland is in line with findings of studies where Iceland scores high on other mental well-being measurements (Helliwell. et al. 2015; Gudmundsdottir, 2013; Leigh & Wolfers, 2006). In her analysis of the ESS data from 2003, Gudmundsdottir (2007) found that Iceland had the highest happiness score of all the European countries that took part. One of the strengths of the flourishing measurement is that it offers additional knowledge about the hedonic mental well-being factor of positive emotions such as happiness. This information is valuable because it gives broader and more specific knowledge of populations' mental well-being. Although Icelandic respondents score high on positive emotion, emotional stability, and meaning, only 48% meet the criteria of engagement and 59% meet the criteria of vitality. This could be of special concern for those working on employment affairs or industrial policy in Iceland (Marks & Shah, 2004).

Vitality is also noteworthy in comparison on a country level where vitality is the worst ranked feature for Denmark and second lowest for Iceland among all features but the best ranked feature for Ukraine and the Russian Federation among all features. This it congruent with the results of Huppert

and So (2013) in which the Nordic countries ranked highest on all features, compared to Southern/Western and Eastern Europe (ranking lowest), except for vitality, for which Eastern Europe ranked the highest and the Nordic countries the lowest. This places Iceland among the Nordic countries and further supports the differences among the regions in Europe. The difference has been explained by the relative wealth, well-developed welfare social systems, income equality, and high trust in the Nordic countries compared to Eastern Europe (Diener et al., 1995; Haavind & Magusson, 2005; Hagerty, 2000; Huppert & So, 2013). However, this does not explain how vitality is different from all other features. The low ranking of optimism and self-esteem is a surprise in regard to the image Icelanders had of themselves in the years preceding the economic crisis in 2008, when it has been argued that Icelanders saw themselves as optimistic Vikings, full of confidence, competence and readiness to conquer the world (Benediktsdottir, 2010; Thórisdóttir & Karólínudóttir, 2014).

Our findings on flourishing by age in Iceland are not identical to previous studies in other countries, which found a U-shaped relationship where younger and older people score higher than the middle aged (Dolan et al., 2008) and not congruent with the association of flourishing with age in Europe 2006 where flourishing generally declined with age (Huppert & So, 2009). The results of age and flourishing were similar with an association that has been seen in Iceland, a positive relationship between age and mental well-being (Gudmundsdottir, 2013) with people aged 60-69 scoring highest and the youngest scoring lowest in both data sets.

Compared to respondents reporting low income in Iceland, high-income respondents were 28% more likely to be flourishing. Respondents reporting finding it neither difficult nor easy to make ends meet were more than twice as likely to be flourishing, and respondents reporting finding it easy or very easy to make ends meet were more than three times as likely to be flourishing as respondents reporting finding it very difficult to make ends meet. This is in line with previous research on mental well-being and income that find a weak positive relationship between income and mental well-being within nations (Diener et al., 2010). It is interesting to see that financial difficulties have more impact on the odds of flourishing than real income. Research has showed that the relationship between mental disorders and low income was mediated by debt (Jenkins et al., 2008). This is also in line with past research in Iceland in which financial difficulties did have a greater association with mental well-being than income when exploring the impact of the economic recession in Iceland (Gudmundsdottir, 2013). It is possible that this can partly be explained by materialism. A study conducted in Iceland showed an association between financial worries, amount of dept and materialistic values (Gardarsdottir & Dittmar, 2012) and another study found that wanting money as a quest for a happier self is a negative predictor of mental well-being (Gardarsdottir et al., 2009).

Flourishing in Europe

The flourishing measurement provides interesting information about other European countries that could be a concern for school systems or other public agencies to address. Why, for example, does Norway constantly rank high on every feature apart from self-esteem and engagement? Huppert and So (2013) raised the question whether the low self-esteem of Norway is an indication of special

modesty in the Norwegian people. The traditional modesty is also a part of Danish identity, and self-esteem is the second lowest of the Danish scores (Smith et al., 2003).

Norway, Sweden, and Switzerland all rank considerably low on engagement but Denmark ranks the third highest. When comparing Nordic cultural practices there is no obvious explanation available; all the Nordic countries appear egalitarian, to value consensus in decision making, to take pride in low power distance and directness (Warner-Søderholm, 2012). One suggestion is that the comparative low scores on engagement and vitality are an indicator of a stressful work culture with the symptoms of low vitality and lack of enthusiasm, interest, and absorption in daily tasks, but there is no evidence that the work culture is more stressful in Norway, Sweden, or Switzerland compared to other European countries (Steiber & Pichler, 2015).

Compared to the results of Huppert and So (2013), there seems to be some mobility in the ranking of countries by flourishing prevalence. The ESS data frame the economic crisis that affected most European countries, and the mobility in the ranking of countries could be a good indicator of the aptitude of the flourishing measurement to capture economic changes. There are several factors of concern when drawing conclusions about the changing prevalence of flourishing in various countries. First, there were 22 participating countries 2006 and 29 in 2012 and they were not exactly the same; for example, Iceland did not participate in 2006. Secondly, two features, engagement and positive relationships, have different measuring items in the two studies and those two features had more rigorous criteria than others in the study of Huppert and So (2013).

Ireland was badly hit by the economic crisis and had a considerable drop in flourishing between the rounds; it ranked number 6 in 2006 and dropped to 13 in 2012. This is in harmony with studies on the economic recession in Ireland (Murphy & Scott, 2014), although some have found little change in mental well-being following the recession (Doherty & Kelly, 2013).

Some countries ranked higher in prevalence of flourishing in 2012 compared to 2006; for example, Germany ranked number 11 in 2006 but number 4 in 2012. The Netherlands ranked number 9 in 2006 but number 6 in 2012 and Slovenia number 16 in 2006 and number 10 in 2012. One explanation of this can be that those countries were not hit as badly by the economic recession and therefore rank higher. It is also possible that although the economic crisis did have a negative effect on many factors concerning people's lives, the crisis did not alter people's view of themselves or decrease their sense of accomplishment (Seligman, 2011). Furthermore, it is possible that people did re-evaluate monetary and material values and priorities in favour of relationships and meaning of life and therefore possibly flourished more. In Iceland, for example, there was some consensus that materialism had spun out of control in the years prior to the economic collapse, and people engaged in revaluing their lives (Thórisdóttir & Karólínudóttir, 2014).

The reduction of mental well-being following an economic recession can generally be ascribed to uncertainty and job insecurity (Lam et al., 2014). Those who were vulnerable before the recession remain a lot worse than those who were economically more stable (Sibley et al., 2011). A population-based study on adolescents´ happiness demonstrates an increase in happiness among adolescents from 2000 to 2010 in Iceland (Gudmundsdóttir et al., 2015). Another study by Gudmundsdottir (2013), conducted in Iceland before and after the economic collapse in the year 2008, demonstrated that the

economic collapse had a limited effect on adults´ happiness in Iceland. Although a decrease in mean happiness was detected, 40% of the sample reported the same happiness levels in both years and 30% of respondents had an increase while another 30% had a decrease in happiness between the two years. Data from the Gallup World Poll from 2010 indicated that mental well-being of British people did stay stable throughout the economic recession (Crabtree, 2010).

Exploring theoretical structure of flourishing

The results of the confirmative factor analysis on the Icelandic sample of ESS data did support the construct of flourishing based on the two factors of positive characteristics and positive functioning.

Compared to the Health and Well-Being sample, the percentage of people meeting the flourishing criteria in Iceland is higher in the ESS sample across all features, both on those features which are identical in both data sets (positive emotion, self-esteem, and competence) and all others except positive relationships, resilience, and engagement. There are several possible explanations for this. The questions are not the same for some of the features, which obviously does account for different response patterns. The questions on positive relationships are quite different, with one asking about feelings of appreciation by people you are close to (ESS) and the other asking about satisfaction with relationships with family and friends (Health and Well-Being). Engagement is also a construct measured with three questions in the ESS data about interest, enthusiasm, and absorption but in the Health and Well-Being data the question is about love of learning new things.

A possible explanation for different response patterns could be the different methodologies. The Health and Well-being Research was a mail-survey while the ESS is an interview survey. The inflated percentage of respondents meeting criteria of flourishing in the ESS sample compared to the Health and Well-Being sample could possibly be explained by social desirability bias (Bradburn, 2004). According social desirability bias, people have a tendency to please researchers and want to look good in the eye of the researcher and make a good impression. Therefore people tend to modify answers when asked about opinions or behaviour which is not considered to be “good” by society, such as smoking, and tend to overstate acceptable opinions or behaviour such as exercising and reading literary books (Bradburn, 2004). The bias is relevant for measuring flourishing because people want to be happy and have a meaningful life (Diener & Scollon, 2014). Thus, it is possible that people do overstate more when asked in person about accomplishment, happiness, feelings towards oneself, and the appreciation of other people to impress the interviewer than they do when alone with a paper and pencil.

Strengths and limitations

This study is based on two representative samples of the Icelandic population with data collected with different response methods at the same time period and, in addition, large samples from many nations. The flourishing measurement is broad and based on a systematic procedure and does include both hedonic and eudaimonic aspects of mental well-being.

Some limitations should be noted. The study used a questionnaire to measure the subjective evaluations of respondents which always rest on personal understanding of the questions and

concepts and could lead to distortion. Secondly, because of attrition, there is a possibility that the people that refused to participate in the study would have answered differently and that valuable information is unaccounted for. Some sub-analysis, especially in the Icelandic ESS data, lacks statistical power because of the small number of answers. Thirdly, the data are cross-sectional and therefore do not allow assumption of causal relationships between the measurement and factors. The items in the flourishing measurement are not the same in both data sets and not all the same as used in previous research. All comparisons of ranking of countries by flourishing should be interpreted with caution because the number of countries was not the same in previous research.

It would strengthen the measurement to have several items to measure each feature. The use of three items to measure engagement is the beginning of this strengthening process. Exploration of an association between flourishing and mental health problems could give the measurement external validation by validating the distribution of mental health.

Conclusion and future suggestions

The prevalence of flourishing in Iceland is among the highest in Europe. It is mainly congruent with previous mental well-being measures in relation to democratic factors. The results of this study indicate that the flourishing measurement is reasonably stable with regard to categories of positive characteristics and positive functioning aspects and seems to be sensitive to economic and political changes. It is important for the measure to be sensitive to social, economic, and cultural changes if it is supposed to be used by policymakers to guide performance.

The diversity of the flourishing measurement offers information for researchers to investigate. It could be of interest for those studying cultural differences or even political discourse to identify how some countries have considerable variations in rankings across the 10 features. The comparatively low ranking of the high-flourishing prevalence countries on engagement is also worth investigating further.

For accurate comparison of the prevalence before and after the economic recession, it is of importance to limit the effect that different measures might have, therefore it is suggested to analyse only the eight features that are found in both data sets. Although a valuable factors of the measurement (positive relationships and engagement) would be left out, it would give more significant comparison of the change between the two time points.

It would be of interest to use the flourishing measurement with a continuous approach to investigate the distribution of the measurement with regard to the whole mental health spectrum, for example to confirm the distribution of the mental health continuum from mental disorder and languishing to moderate mental health and flourishing. At last it would also be interesting to conduct a similar analysis across the remaining individual countries in the ESS data.

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Tables

Table 1. Features of flourishing and items from the European Social Survey 2012 used as indicators

Feature	ESS item used as indicator	Scale
Positive characteristics		
Positive emotion	Taking all things together, how happy would you say you are?	11 point Likert scale from 0 “extremely unhappy” to 10 “extremely happy”
Optimism	I am always optimistic about my future	5 point Likert scale from 1 “disagree strongly to 5 "agree strongly”
Self-esteem	In general, I feel very positive about myself	5 point Likert scale from 1 “disagree strongly to 5 "agree strongly”
Resilience	When things go wrong in my life it generally takes me a long time to get back to normal. (reverse	5 point Likert scale from 1 “agree strongly” to 5 “disagree strongly”
Emotional stability	I felt calm and peaceful (in the past week)	4 point Likert scale from 1 “none or almost none of the time” to 4 “all or almost all of the time”
Vitality	I had a lot of energy (in the past week)	4 point Likert scale from 1 “none or almost none of the time” to 4 “all or almost all of the time”
Positive functioning		
Positive relationships	To what extent do you feel appreciated by the people you are close to?	11 point Likert scale from 0 “not at all” to 10 “completely”.
Meaning	I generally feel what I do in my life is valuable and worthwile	5 point Likert scale from 1 “disagree strongly to 5 "agree strongly”
Competence	Most days I feel a sense of accomplishment from what I do	5 point Likert scale from 1 “disagree strongly to 5 "agree strongly”
Engagement	How much of the time would you generally say you are: "interested in what you are doing", “absorbed in what you are doing”, “enthusiastic about what you are doing” (three variables)	11 point Likert scale from 0 “none of the time” to 10 “all of the time”

Table 2. Range, criteria and means for Iceland and Europe for each feature of the flourishing measurement in the European Social Survey 2012

Feature	Range	Criteria	Iceland mean	Total Eu mean
Positive emotion	0-10	8-10	8.2	7.1
Optimism	1-5	4-5	3.8	3.8
Self-esteem	1-5	4-5	3.9	3.9
Resilience	1-5	4-5	3.5	3.3
Emotional stability	1-4	3-4	3.1	2.7
Vitality	1-4	3-4	2.6	2.6
Engagement	0-10	cut at 8 *	7.6	7.4
Meaning	1-5	4-5	4.1	3.9
Competence	1-5	4-5	3.8	3.7
Positive relationships	0-10	8-10	7.8	7.7

* Three variables.

Table 3. Items from the European Social Survey and Health and Well-being used as indicators

Feature	ESS item used as indicator	Health and Well-being used as indicator
Positive characteristics		
Positive emotion	Taking all things together, how happy would you say you are?	Taking all things together, how happy would you say you are?
Optimism	I am always optimistic about my future	I've been feeling optimistic about the future (in past two weeks)
Self-esteem	In general, I feel very positive about myself	In general, I feel very positive about myself
Resilience	When things go wrong in my life it generally takes me a long time to get back to normal. (reverse score)	I've been dealing with problems well (in past two weeks)
Emotional stability	I felt calm and peaceful (in the past week)	I felt calm and peaceful (in past two weeks)
Vitality	I had a lot of energy (in the past week)	I had a lot of energy (in past two weeks)
Positive functioning		
Positive relationships	To what extent do you feel appreciated by the people you are close to?	How satisfied are you with your relationship with mentioned below: friends and family other than spouses
Meaning	I generally feel what I do in my life is valuable and worthwile	My life has a clear purpose
Competence	Most days I feel a sense of accomplishment from what I do	Most days I feel a sense of accomplishment from what I do
Engagement	How much of the time would you generally say you are: "interested in what you are doing", "absorbed in what you are doing", "enthusiastic about what you are doing" (three variables)	I think I often learn new things in life

Table 4. Items from the Health and Well-being in Iceland 2012 used as indicators, scale and criteria

Feature	Indicator	Scale	Criteria
Positive characteristics			
Positive emotion	Taking all things together, how happy would you say you are?	10 point Likert scale from 1 “extremely unhappy” to 10 “extremely happy”	8-10
Optimism	I’ve been feeling optimistic about the future (in past two weeks)	5 point Likert scale from 1 “never” to 5 “always”	4-5
Self-esteem	In general, I feel very positive about myself	5 point Likert scale from 1 “disagree strongl"y to 5 “agree strongly”	4-5
Resilience	I’ve been dealing with problems well (in past two weeks)	5 point Likert scale from 1 “never” to 5 “always”	4-5
Emotional stability	I felt calm and peaceful (in past two weeks)	6 point Likert scale from 1 “never” to 6 “always”	5-6
Vitality	I had a lot of energy (in past two weeks)	6 point Likert scale from 1 “never” to 6 “always”	5-6
Positive functioning			
Positive relationships	How satisfied are you with your relationship with mentioned below: friends and family other than spouses	5 point Likert scale from 1 “very dissatisfied” to 5 “very satisfied”	4-5
Meaning	My life has a clear purpose	4 point Likert scale from 1 “absoulutly not true” to 4 “very much true”	3-4
Competence	Most days I feel a sense of accomplishment from what I do	5 point Likert scale from 1 “disagree strongl"y to 5 “agree strongly”	4-5
Engagement	I think I often learn new things in life	5 point Likert scale from 1 “disagree strongl"y to 5 “agree strongly”	4-5

Table 5. Ranking of each feature of flourishing across 29 European countries, ESS Round 6 data.

	Competence	Emotional stability	Engagement	Meaning	Optimism	Positive emotion	Positive relationships	Resilience	Self-esteem	Vitality
Denmark	4	2	3	4	5	1	2	1	11	12
Switzerland	1	10	16	2	3	5	5	4	3	2
Norway	5	3	27	5	6	4	3	2	22	16
Germany	3	6	12	15	4	10	6	9	1	6
Iceland	10	1	13	3	12	2	12	5	18	15
Netherlands	11	8	7	9	17	6	9	6	19	5
Finland	12	13	8	16	7	3	14	3	8	22
Sweden	2	7	28	18	9	8	10	7	7	20
Israel	19	19	6	22	11	7	7	14	13	11
Slovenia	15	4	18	19	13	14	19	18	2	1
Cyprus	18	23	10	6	16	16	1	20	15	4
Poland	14	24	5	17	15	13	13	12	14	13
Ireland	13	15	17	12	8	17	22	10	9	9
Belgium	7	18	9	11	18	9	15	11	25	24
United Kingdom	17	28	22	13	10	11	21	8	12	26
Estonia	24	11	14	21	14	20	20	16	17	14
Spain	27	25	4	20	20	12	16	19	6	29
Czech Republic	23	5	26	26	23	21	29	22	27	3
Italy	8	26	15	8	27	18	26	15	16	23
Albania	6	17	1	1	2	19	4	28	5	19
France	9	27	21	7	24	15	11	13	26	8
Lithuania	20	21	23	24	22	23	18	25	28	25
Kosovo	16	22	2	10	1	24	17	29	10	21
Slovakia	28	9	29	23	25	22	24	24	23	17
Hungary	25	14	11	27	29	28	23	21	29	27
Bulgaria	22	20	19	25	26	29	8	27	20	18
Portugal	21	29	24	14	28	25	25	17	4	28
Russian Federation	29	16	20	29	21	27	28	23	21	10
Ukraine	26	12	25	28	19	26	27	26	24	7

Table 6. Percentage of sample meeting the criteria of each feature of the flourishing measurement.

	ESS Icelandic data	Health and well-being data
Feature	%	%
Positive emotion	78%	67%
Optimism	73%	73%
Self-esteem	78%	72%
Resilience	64%	73%
Emotional stability	81%	63%
Vitality	59%	41%
Engagement	48%	81%
Meaning	89%	83%
Competence	75%	73%
Positive relationships	68%	81%

Table 7. Percentage of flourishing in Iceland by demographic variables, ESS 2012 data.

	N (%) of sample	N (%) of flourishing	χ^2
All	726	304 (42%)	
Gender			1.43 (1)
men	377 (50.1%)	143 (39.7%)	
women	375 (49.9%)	161 (44.1%)	
Age			34.95 (6)***
Age 15-19	86 (11.4%)	14 (16.5%)	
Age 20-29	116 (15.4%)	46 (41.1%)	
Age 30-39	124 (16.5%)	51 (42.1%)	
Age 40-49	129 (17.2%)	62 (48.4%)	
Age 50-59	127 (16.9%)	60 (48.4%)	
Age 60-69	92 (12.2%)	48 (55.2%)	
Age 70-90	78 (10.4%)	24 (34.3%)	
Marital status			42.42 (2)***
Married/cohabiting	437 (61.7%)	218 (51.5%)	
Widowed	29 (4.1%)	10 (40%)	
Single/divorced	242 (34.2%)	60 (25.4%)	
Education			33.47(2)***
Basic	215 (28.7%)	57 (27.7%)	
Middle	286 (38.1%)	116 (41.7%)	
University	249 (33.2%)	131 (54.8%)	
Employment			29.85(2)***
Unemployed	17 (2.3%)	4 (22.2%)	
Employed	402 (54.5%)	199 (51.7%)	
Other	318 (43.1%)	99 (32.1%)	
Real income			33.17(2)***
Low	236 (36.6%)	64 (27.6%)	
Middle	178 (27.6%)	83 (47.4%)	
High	230 (35.7%)	117 (53.2%)	
Feeling towards household income			18.60(2)***
Finding it difficult on present income	114 (15.5%)	30 (28%)	
Coping on present income	299 (40.7%)	119 (39.8%)	
Living comfortably on present income	322 (43.8%)	154 (50.8%)	

**<0.05 *** p<0.001

Table 8. Percentage of flourishing in Iceland by demographic variables, Health and well-being data.

	N (%) of sample	N* (%) of Flourishing	χ^2
All	5660	2567 (42.5%)	
Gender			69.06(1)***
men	3132 (46.2%)	1202 (43.4%)	
women	3646 (53.8%)	1360 (41.6%)	
Age			2973.71(5)***
18-29	588 (8.7%)	193 (35.5%)	
30-39	757 (11.2%)	272 (37.3%)	
40-49	1045 (15.5%)	433 (44.8%)	
50-59	1283 (19.0%)	528 (47%)	
60-69	1450 (21.4%)	602 (50.5%)	
>70	1639 (24.2%)	532 (49.4%)	
Marital status			
Single	618 (9.3%)	147 (27%)	5469.77(5)***
Committed	245 (3.7%)	91 (40.5%)	
Cohabiting	908 (13.6%)	340 (40.6%)	
Married	4114 (61.6%)	1738 (48.7%)	
Divorced	377 (5.6%)	100 (31.3%)	
Widowed	418 (6.3%)	110 (40%)	
Education			930.61(2)***
Basic	2249 (36.3%)	731 (37.5%)	
Middle	2324 (37.6%)	924 (42.3%)	
University	1615 (26.1%)	718 (46.1%)	
Employment			1208.82(1)***
Unemployed	284 (7.3%)	62 (24.4%)	
Employed	3600 (92.7%)	1444 (41.5%)	
Real income			2990.45(2)***
Low	2562 (42.0%)	790 (34.2%)	
Middle	2038 (33.4%)	850 (43.5%)	
High	1502 (24.6%)	727 (49.1%)	
Financial difficulty			10525.19(4)***
Very difficult	382 (5.6%)	67 (18.5%)	
Difficult	1311 (20%)	353 (29.5%)	
Neither	2054 (31.1%)	779 (41.5%)	
Easy	1596 (24.4%)	719 (51.1%)	
Very easy	1211 (18.5%)	609 (55.3%)	

* N unweighted
*** $p<0.001$

Table 9. Odds ratio estimates (95% CI) for flourishing. Health and Well-being 2012 data.

	N	OR (CF)
Gender		
men	1464	Ref.
women	1829	0.948 (0.81-1.12)
Age		
18-29	454	Ref.
30-39	548	1.01 (0.76-1.36)
40-49	645	1.25 (0.94-1.67)
50-59	597	1.45 (1.08-1.95)*
60-69	508	1.61 (1.17-2.22)**
>70	341	1.81 (1.26-2.60)**
Marital status		
Single	359	Ref.
Committed	149	1.69 (1.11-2.56)*
Cohabiting	547	1.71 (1.27-2.31)***
Married	1761	1.93 (1.44-2.58)***
Divorced	150	0.78 (0.49-1.25)
Widowed	100	1.26 (0.75-2.10)
Education		
Basic	884	Ref
Middle	1260	1.21 (1.00-1.46)
University	949	1.11 (0.90-1.37)
Employment		
Unemployed	179	Ref.
Employed	2914	1.71 (1.19-2.46)**
Real income		
Low	1038	Ref.
Middle	1260	1.21 (0.99-1.47)
High	900	1.28 (1.01-1.61)*
Financial difficulty		
Very difficult	176	Ref.
Difficult	639	1.51 (1.00-2.32)
Neither	946	2.47 (1.64-3.70)***
Easy	741	3.40 (2.24-5.15)***
Very easy	591	3.47 (2.26-5.32)***

* p<0.05 **p<0.01 ***0.001
Negelkerke R square = 0.106

Table 10. Spearman correlations among different well-being indicators, Icelandic ESS 2012 data.

	Competence	Emotional stability	Engagement	Meaning	Optimism	Positive emotion	Positive relationship	Resilience	Self-esteem	Vitality
Competence										
Emotional stability	.24									
Engagement	.33	.24								
Meaning	.42	.20	.32							
Optimism	.26	.22	.36	.28						
Positive emotion	.27	.24	.35	.25	.37					
Positive relationship	.34	.26	.49	.35	.32	.42				
Resilience	.15	.16	.18	.10	.24	.28	.25			
Self-esteem	.26	.22	.33	.29	.50	.31	.39	.29		
Vitality	.28	.23	.30	.23	.30	.32	.22	.20	.22	

All correlations are significant at the .01 level

Table 11. Model fit for confirmatory factor analysis of latent factors. ESS Iceland 2012 data.

	χ^2	df	CFI	NNFI	RMSEA (90% CI)
Model	129.3459	34	0.94	0.92	0.061 (0.050-0.072)

Figures

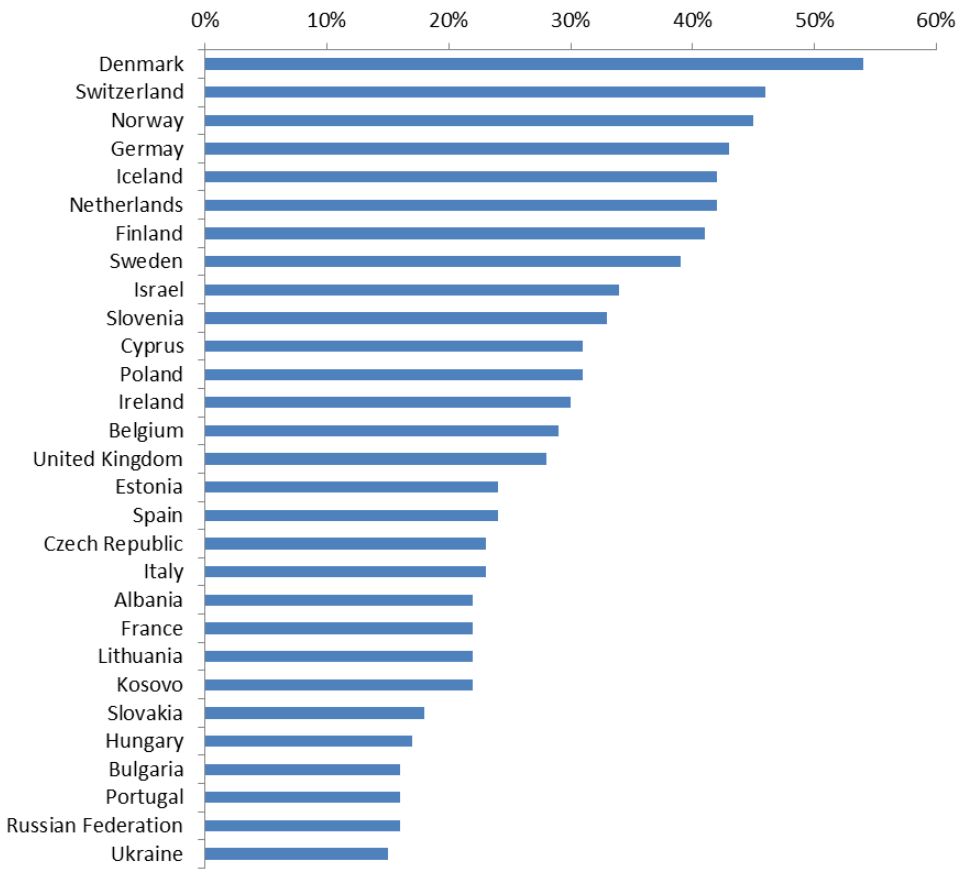

Figure 1. Percentage of flourishing by country ESS 2012 data.

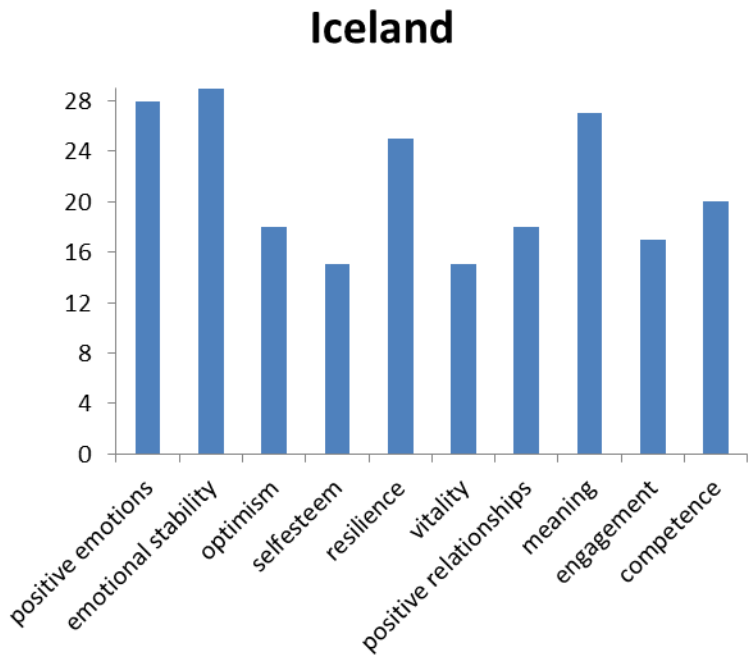

Figure 2. Ranking of Iceland compared to Europe by each flourishing feature, ESS 2012 data. 0=lowest 29=highest.