

# Understanding the Association Between Education and Wellbeing: An Exploration of the Gallup World Poll

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## Abstract

Antecedents of wellbeing across different socio-cultural contexts is a question that psychologists and other social scientist continue to grapple with. Although evidence supporting higher educational levels as being beneficial for wellbeing is significant, there are still contradictory findings, necessitating further exploration into this relationship. Moreover, current evidence seems to focus mostly on data derived from Western samples and have adopted limited measures of wellbeing. The present study explores the relationship between schooling and a subset of 31 wellbeing-related categories in the Gallup World Poll conducted over three years (2020–2022), encompassing 386,654 individuals in 142 countries. The findings indicate that overall participants with higher levels of education fare better than those with lower levels of education. However, disaggregation and comparison across key social indicators, specifically, country/region of residence, sex and age showed that there were instances where higher levels of education were less beneficial for wellbeing. While acknowledging the importance of education for wellbeing, our findings suggest the need to consider how unique socio-cultural factors might further complicate the benefits of education. We also suggest that governments might need to consider what policies are necessary to make the benefits of education more apparent and ubiquitous.

**Keywords:** Education; Wellbeing; Quality of Life; Demographic characteristics; Gallup World Poll

## Introduction

Scholars widely recognize education as a crucial investment in human capital, enabling individuals to gain knowledge, cognitive skills, and a mindset that enhances their active and productive engagement in social and economic aspects of life (Nikolaev, 2018; Nikolaev &

Rusakov, 2016). Wellbeing, on the other hand, involves a sense of overall functioning in mental, physical, social, and spiritual dimensions of an individual's life (Lomas & VanderWeele, 2022). Education is commonly seen as a socioeconomic factor that has the potential to affect individuals' wellbeing (Jongbloed, 2018; Patria, 2022; Ruijter & Ruijter, 2019). For example, Huong et al. (2017) found a link between lower levels of education and poorer health-related quality of life. Salinas-Jimenez et al. (2011) also noted that the positive relationship between education and subjective wellbeing is stronger when fewer people attain a higher level of education. Combining satisfaction with life and flourishing, Jongbloed (2018) argued that tertiary education resulted in increased wellbeing in a European sample.

The prominent rationale behind the positive impact of education on wellbeing is its tendency to improve other aspects of a person's life, including health, social status, relationships, and income. The necessity for further investigation into the connection between education and wellbeing arises from the fact that while some studies tend to treat education as a control variable when examining indicators of wellbeing (Patria, 2022) others suggest that, particularly in more developed countries, the relationship between education and wellbeing could be negative (Clark & Oswald, 1994; Huppert, 2009). Additionally, the estimates of the association between education and wellbeing do vary based on different indicators of wellbeing and the strength of their association sometimes attenuates when other variables are considered. This suggests that the beneficial effects of education on people's wellbeing may not always be direct or may depend on other variables. (Hartog & Oosterbeek, 1998; Helliwell, 2003; Helliwell et al., 2012).

One possible explanation for these mixed findings is that education might foster greater ambition, which may reduce wellbeing as higher expectations become harder to fulfil (Clark & Oswald, 1996). In addition, many studies use regression models that control for variables such as income, health, and marital status, thereby closing the channels through which education could positively contribute to higher levels of wellbeing (Powdthavee et al., 2015). Moreover, existing literature has not adequately examined the role of education as a social positioning, and there is a need for a comprehensive and integrative framework for assessing wellbeing.

Empirical research on wellbeing has traditionally emphasized subjective feelings and judgements of life satisfaction (hedonia) and optimal functioning (eudamonia; Huta, 2016). Within the hedonic tradition, well-being taps into happiness and life satisfaction, whereas eudamonia is principally concerned with meaning, purpose, relationships, autonomy, and competency. There is a call to critically interrogate this dichotomy (Joshani, 2018; Wilson Fadji et al., 2021), while considering the need to also include objective indicators of wellbeing (Lomas & VanderWeele, 2022). To expand current theorising of wellbeing beyond eudemonic and hedonic dimensions, VanderWeele (2017) proposed a multidimensional model of flourishing in which the components of the model are considered both universally desirable and ends in themselves. In our exploration of education and wellbeing in this study, we draw on this multidimensional consideration of well-being.

### ***Theoretical Models on Education and Wellbeing***

Economists generally acknowledge that education serves as both an investment and a consumption good (Schaafsma, 1976). This is because it yields monetary returns in the future, while also providing utility through present consumption and improved abilities to enjoy a wider range of goods in the future. In terms of investment, the human capital theory,

popularized in the 1960s by Schultz (1960) and Becker (1964), has dominated economic analysis. According to this model, education enhances individuals' skills and productivity, leading to higher wages in the labour market. On the other hand, education as a consumption good provides immediate benefits and satisfaction. It is widely recognized that present consumption of education positively contributes to individual wellbeing (Nikolaeva & Rusakov, 2016).

While many people view education as enjoyable and valuable in and of itself, some contend that it can also increase expectations, which could lead to frustration if those expectations are not met. (Schaafsma, 1976). This viewpoint makes the assumption that the difference between perceived and actual opportunities determines an individual's well-being. As a result, the effect of education on wellbeing could vary depending on how rising expectations and real opportunities compare.

Another explanation comes from Conservation of Resources (COR) theory, which suggests that socioeconomic status (SES) is closely linked to resource availability (Hobfoll, 2011). Individuals with higher education and income typically have greater access to resources and are better equipped to protect and preserve those resources. In contrast, individuals with lower education and income face challenges in acquiring and safeguarding resources. In line with COR theory, people with fewer resources are more likely to experience lower wellbeing, which often includes individuals with lower levels of education. However, this theory does not account for the role of positionality, changing aspirations, and inconsistent findings regarding the relationship between education and wellbeing across different regions of the world.

Alternative theoretical reasoning has argued that the value of education for an individual's wellbeing cannot be solely demonstrated through monetary rewards (Brighouse, 2006; Michalos, 2017). For instance, Brighouse (2006) suggests that "schools play a vital role in fostering individual autonomy, which is crucial for leading fulfilling lives" (p. 16). Although human flourishing cannot be equated with happiness, what contributes to flourishing is closely connected to happiness. Therefore, education may promote happiness because individuals who can determine their own commitments are more likely to experience a happy and fulfilling life. Michalos (2017) shares a similar perspective, but suggests that simple measurements of education (e.g., highest level of formal education) or happiness (e.g., self-reported, single-item indexes) are inadequate. It is emphasized that education and learning make people happier by allowing them to value intellectual endeavors, physical health, solid interpersonal connections, and a feeling of belonging in addition to material belongings.

### ***Review of Literature on Education and Wellbeing***

Michalos (2017) argues that the relationship between education and happiness depends on how one defines and operationalizes 'education,' 'influences,' and 'happiness.' More specifically, education is believed to have very little effect on happiness if the three terms "influences," "education," and "happiness" refer to the following: (1) the highest level of formal education that leads to diplomas and degrees; (2) standardised single-item or multiple item happiness or life satisfaction measures; and (3) a direct and positive relationship between education and happiness. On the other hand, Michalos (2017) suggests that if these three concepts are defined more comprehensively, then education can have a significant impact on happiness.

Several empirical studies have reported a positive correlation between education and happiness (Cuñado et al., 2012; Di Tella et al., 2001; Helliwell et al., 2020; Rodríguez-Pose & von

Berlepsch, 2014). Individuals with higher education tend to, on average, possess greater psychosocial resources, leading to more frequent positive emotions. Furthermore, education can lead to higher job quality and more fulfilling work (Helliwell et al., 2020; Ngoo et al., 2015), improved health outcomes (Alesina et al., 2004; Blanchflower & Oswald, 2008), and better marriage prospects (Hartog & Oosterbeek, 1998). Similar findings have been documented in longitudinal research. For example, Hartog and Oosterbeek (1998) found that individuals with secondary education (non-vocational) had better health, were happier, and had greater wealth compared to other groups with lower education levels. Additionally, people with higher education tend to have broader social networks and engagement with the world, which is associated with higher levels of happiness (Chen, 2012). Working with a large Dutch sample, Iles et al. (2019) found that the relationship between education and general life satisfaction is explained by job satisfaction. This finding was attributed to a better job-person fit among highly educated individuals. However, when examining the direct impact of education on happiness, the evidence is not consistent. Studies by Veenhoven (1996), Clark and Oswald (1994, 1996), Inglehart and Klingemann (2000), Dockery (2003), Headey and Wooden (2004), Hickson and Dockery (2008), and others have presented mixed findings.

Even after adjusting for other variables, some research shows a favorable correlation between education and subjective well-being. (Araki, 2022; Cuñado & de Gracia, 2012; Nikolaev, 2018; Rodríguez-Pose & von Berlepsch, 2014; Salinas-Jiménez et al., 2011), but others suggests that education alone may be unrelated to or even undermine wellbeing when considering the mediating role of objective socioeconomic factors (Clark & Oswald, 1996; Helliwell, 2003; Ngoo et al., 2015). For example, Helliwell (2003) found little evidence of an association between educational proxy variables and life satisfaction, while Clark and Oswald (1996) reported a negative association with life satisfaction. This is due to the possibility that non-financial elements, such cosmopolitanism and interpersonal networking, may have an impact on the correlation between happiness and education. Furthermore, if they have everyday difficulties and lack access to psychosocial supports, those with higher education may still be more susceptible to depressive symptoms and poorer mental wellbeing (Niemeyer et al., 2019). Other explanations for divergent results may include the challenges that highly educated individuals may experience attempting to fulfil their job expectations, and the findings that suggest income inequality tends to increase with education (Clark & Oswald, 1996).

The relationship between education and happiness also appears to be influenced by the overall welfare of a country, with stronger correlations observed in developing nations and weaker correlations in more developed ones (Veenhoven, 1996). This is not necessarily because education leads to dissatisfaction, but rather could be due to a lack of employment opportunities that match the level of education, or the diminishing advantages associated with social equalization (Veenhoven, 1996). Borrowing from research on income and happiness (Lim et al., 2020), societal values of a country may also account for the relationship between education and wellbeing. Specifically, valuing relationships and community over benefits associated with higher education might impact on the strength and direction of the relationship between education and happiness. The law of diminishing marginal utilities might also explain why happiness does not always increase with education (Helliwell, 2006). For instance, in high income countries, where the average levels of education are high and employment opportunities are more widespread, the impact of education on wellbeing may not be so apparent.

Other differences in the relationship between education and wellbeing might be underscored by country or regional wellbeing levels. There is a noticeable variation in national average

happiness, based on the World Database of Happiness covering 41 sub-Saharan African countries mostly from 2000 to 2019. When comparing the average data gathered in the 2000s, Malawi had the highest rating (6.2), which was about 2.5 times higher than the lowest rating (2.6) in Togo. Out of 149 countries in the database, Togo earned the lowest ranking globally (8.5), while Costa Rica received the highest score. During this time, it was also discovered that the sub-Saharan region had a comparatively small number of countries with mean scores higher than the scale's midpoint (5.0). This group included just Namibia, Djibouti, Chad, South Africa, Nigeria, Malawi, and Djibouti (Møller & Roberts, 2021).

Ng (2002) has noted that, in comparison to other Asian cultures like the Philippines, the East Asian countries with the fastest economic growth—China, Hong Kong, Taiwan, Korea, Japan, and Singapore—have reported lower levels of happiness. It's common to refer to this disparity as the "East-Asian Happiness Gap." According to Helliwell et al. (2019), South Asia's mean happiness decreased from 5.1 to 4.1 in the World Happiness Report. India's large share of South Asian population was primarily responsible for this reduction. In contrast, across the period, life assessments have generally increased in Southeast and East Asia. Although happiness in East Asia was worst hit in the economic crisis years (1997/1998), it has since posted a larger overall gain than Southeast Asia. Latin America generally seems to have life evaluation levels that are comparable to regions of North America and Australasia. However, Latin America shows an inverted U-shape in life evaluation, with the peak in 2013. Since then, the level of life evaluations has fallen by about 0.6. Against the backdrop of these regional trends in happiness, we explore the relationship between education and multidimensional wellbeing in different regions of the world (Helliwell et al., 2020).

### ***The Present Study***

In light of findings reported in Patria (2022) and Helliwell et al. (2020), which provided evidence for a relationship between education and higher wellbeing, the present study explores the Gallup World Poll to further explore the nature of the relationship between education and wellbeing across different regions of the world. The current study is cognisant of conflicting findings due to social context, positionality concerns and changes in desires as individuals acquire higher levels of education as well as differences in wellbeing measures. The unique contribution of the present study lies in (a) the use of a holistic wellbeing measure. This is because most research tends to just focus on a few wellbeing measures, usually life satisfaction and a handful of positive and negative emotions indicators (Patria, 2022); (b) A large data set from different regions of the world was used whereas there is a predominance of Western-centric research, often just focusing on the USA. As such our findings will give an unprecedentedly comprehensive and detailed view of the connection between education and wellbeing.

### ***Research Aim***

The aim of the present study is to determine the nature of the relationship between education and wellbeing *using the Gallup World Poll*.

### ***Research Question***

Are there any significant differences between individuals with high, average and low education in their levels of wellbeing?

## ***Research Hypothesis***

It is hypothesized that there will be a significant difference in the relationship between levels of education and wellbeing. It is also hypothesized that the pattern of the relationship between education and wellbeing will differ according to region of the world, sex, age, and income.

## **Methods**

### ***Data Collection***

The GWP survey typically consists of 60–80 items and takes 15–20 min to complete (the exact number varies across respondents based on screener questions, filters, and skip patterns). The Global Health Project (GWP) uses probability-based, nationally representative samples of adult populations (15 years of age and older); 1,000 participants are selected annually from each country. With this sample size, the GWP will have sufficient power ( $\beta = 0.80$ ,  $\alpha = 0.05$ ) to detect a group difference of about 9 percentage points, after taking into account the survey weights and allowing for a maximum confidence interval of about 4 percentage points. This study combines data from the three waves of the Greenhouse Gas Project (2020, 2021, and 2022) to create a bigger total sample by analyzing cross-sectional data over these three years. The regular and established protocol of the GWP was followed for collecting data. The three waves of data collecting are described in full below.

**2020 Wave.** With 121,207 participants, 116 countries were included in 2020, accounting for almost 90% of the adult population worldwide. The results obtained from the entire sample of adult citizens in the country have a 95% confidence level margin of sampling error ranging from  $\pm 1.1$  to  $\pm 5.5$  percentage points. Typically, the GWP entails gathering data in person. But Gallup developed a backup plan that relied only on phone interviews in the wake of COVID-19. Consequently, while a small number of face-to-face interviews took place in a few nations at the start of 2020, before of nationwide lockdowns, the majority of the poll was completed over landline and mobile phones throughout the year. Therefore, adults who are 15 years of age or older and have access to a phone—landline or mobile—are included in the sampling frame. Since everyone is qualified. Therefore, adults who are 15 years of age or older and have access to a phone—landline or mobile—are included in the sampling frame. The coverage region includes all valid mobile service providers and qualifying landline exchanges, so it includes the entire nation, even rural areas.

**2021 Wave.** With 122,846 respondents, 122 nations were sampled in 2021, accounting for almost 90% of the adult global population. By 2021, lockdowns were still in place on occasion over much of the world, and a few of nations were still having difficulty vaccinating their citizens. In order to ascertain which countries were safe to resume in-person data collection with the necessary safety precautions in place, which ones should continue with telephone data collection, and which ones would not be included in the 2021 data collection roster, the GWP examined the circumstances in each of the participating nations. The majority of the 122 countries sampled in 2021—the majority of which are in sub-Saharan Africa, as well as a few in Central and Eastern Europe, Latin America, the former Soviet states, developing Asia, and the Middle East—returned to in-person interviews, while the remaining countries continued to use the format that was introduced in 2020 due to the pandemic.

**2022 Wave.** With 142,601 respondents, 142 nations were sampled in 2022, accounting for over 90% of the adult population worldwide. In the majority of the areas and nations where they had

previously used this approach to gather World Poll surveys, the GWP was able to fully resume in-person interviews.

### ***Items Analysed***

A priori, 31 distinct items were chosen for the analysis as they provided a comprehensive coverage of wellbeing in all of its facets. These were three life assessment items, eleven items about everyday feelings and experiences, and sixteen items about various additional aspects of wellness.

### ***Life Evaluation***

Two items were selected in relation to life evaluation, which are phrased in the GWP as follows:

1. Life evaluation today. “Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?”
2. Life evaluation in future: “Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. Just your best guess, on which step do you think you will stand in the future, say about five years from now?”
3. Present and future life evaluation combined: in addition, scores for these two items were added to create a present-and-future life evaluation, which thus constitutes a third life evaluation outcome here.

### ***Daily Emotions and Experiences***

The GWP features a set of items asking about people’s experiences yesterday, featuring this prompt: “Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt.” It first asks about four types of experiences, with the following response options: Yes; No; Don’t Know; and Refused to Answer. In the analysis, we focused only on yes and no responses, partly for clarity and simplicity, and also because very few people – generally less than 1% of respondents – either answered Don’t Know or Refused to Answer. The items are:

1. Did you feel well-rested yesterday?
2. Were you treated with respect all day yesterday?
3. Did you smile or laugh a lot yesterday?
4. Did you learn or do something interesting yesterday?

Following these, the survey enquires about seven emotions/feelings. These items are preceded by the prompt “Did you experience the following feelings during a lot of the day yesterday?” These have the same response options as above (Yes; No; Don’t Know; and Refused to Answer), and we again only focused on yes/no responses in the analysis.

5. How about enjoyment?
6. How about calmness?
7. How about physical pain?
8. How about worry?
9. How about sadness?
10. How about stress?
11. How about anger?

### ***Wellbeing Aspects and Factors***

In addition to the aforementioned things, the GWP includes a large number of items that, depending on one's viewpoint, may be seen as components of wellbeing or as significant variables influencing it. We decided that 16 items would provide the most comprehensive representation of these diverse elements and circumstances. All have the same response possibilities (yes, no, don't know, refused to answer) as the daily emotions/experiences topics, unless otherwise noted. For the same reasons, we restricted our analysis to yes/no answers exclusively. When an answer was missing the typical binary yes/no choice, we transformed it into a binary format, which is described in more detail below.

There are three items relating to psychological balance and harmony, which are part of the 2022 Global Wellbeing Initiative module. These are all preceded “In general, how often ...”, and have the following response options: Always; Often; Rarely; Never; Don’t Know; Refused to Answer. For the analysis, we combined Always and Often into a “Yes” response, and Rarely and Never into a “No” response (and once again disregarded the negligible number of Don’t Knows and Refused to Answer. The items are as follows:

1. ... are you content?
2. ... are the various aspects of your life in balance?
3. ... are your thoughts and feelings in harmony?

There is one item relating to health.

4. Do you have any health problems that prevent you from doing any of the things people your age normally can do?

There are three items pertaining to friendship and relationships. The second of these is part of a series of questions featuring the prompt: “In the city or area where you live, are you satisfied or dissatisfied with ... “. The third item is again part of the Global Wellbeing Initiative module, preceded by the stem, “In general, how often ...”, and with the response options again converted into a binary as per above.

5. If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?
6. [In the city or area where you live, are you satisfied or dissatisfied with] the opportunities to meet people and make friends?
7. [In general, how often] are you in harmony with those around you?

There are three items relating to personal safety and security:

8. Do you feel safe walking alone at night in the city or area where you live?
9. Within the last 12 months, have you had money or property stolen from you or another household member?
10. Within the last 12 months, have you been assaulted or mugged?

There are two items relating to work:

11. Do you enjoy the work you do in your job every day, or not? (Interviewer: If the respondent says they don't work every day, ask them to think about the days when they work.)
12. Do you, personally, have many choices in regard to the type of work you can do in your life?

There are two items relating to work:

13. ... to buy food that you or your family needed?
14. ... to provide adequate shelter or housing for you and your family.

Finally, there are two items relating to standard of living. The first has the response options: Satisfied; Dissatisfied; Don't Know; Refused to Answer. As with the yes/no items above, in the analysis we just compared the first two options. The second item had five response options: Getting better; The same; Getting worse; Don't Know; Refused to Answer. In that case, the analysis focused on Getting better versus Getting Worse:

15. Are you satisfied or dissatisfied with the city or area where you live?
16. Right now, do you feel your standard of living is getting better or getting worse?

### ***Data Analysis***

Thirty-one items in total were analyzed, with each case comparing participants classified into three groups based on differences in educational attainment: least educated (i.e., completed elementary education or less, meaning up to 8 years of basic education); median educated (i.e., some education beyond secondary education, meaning 9–15 years of education); and most educated (i.e., completed four years of education beyond high school and/or received a 4-year college degree, meaning over 15 years of education). For the first three items, which related to life evaluation, the dependent variable (Cantril's ladder) involved continuous data, and were analysed using T tests, with effect sizes per *Cohen's d*. Chi Square tests were used to analyze the dependent variables for the remaining variables, which had binary outcomes. Cramer's V was used to determine the effect sizes. First, as stated in the first line of the corresponding tables in the findings section, a basic comparison was performed for each item among participants in the three education categories throughout the whole data set.

Following a demographic stratification of the datafile, comparisons between individuals in the three education categories were conducted within each demographic group. The GWP divided the file into eleven global regions in the first place: the EU, Europe "other," Independent States, Australia and New Zealand, Southeast, South, and East Asia, Latin America and the Caribbean, North America, Middle East and North Africa, and Sub-Saharan Africa. The Supplementary Tables include comparisons between participants in the three education groups in these regions. Next, we highlighted two regions in the Results section tables: (a) the best region for

participants with the least education (not in absolute terms, but rather in relation to the participants who are the most educated in that same region); and (b) the best region for participants with the highest education (again, not in absolute terms, but relative to the participants who are the least educated in that same region). Second, males and women were separated out of the dataset based on sex. Thirdly, the individuals were divided based on age, with the youngest (30 and under) and oldest (60 and above) being compared. After that, it was divided into income groups, and we contrasted the richest 20% of groups (i.e., the richest 20%) with the least fortunate (i.e., the poorest 20%, based on the per capita income quintiles each country).

## **Results**

### ***Life Evaluation***

The life evaluation items' findings are displayed in Table 1. The top row of each item presents a comparison between participants in the three education categories for the entire set of data. Below this, the remaining rows (rows 2 and 3) separate the participants by sex (rows 4 and 5), age (rows 6 and 7), and income (rows 8 and 9). People with higher degrees of education generally rate their lives considerably higher than people with lower levels of education. It is customary to interpret effect sizes (Eta sq) as small, medium, and big, respectively, 0.1, 0.6, and 0.14. In that regard, most effect sizes are small, though there is considerable range, spanning just 0.003 (for life evaluation combined in independent states) and 0.07 (for life evaluation in five years for South Asia).

### ***Daily Emotions/Experiences***

The results for the nine everyday emotions/experiences are displayed in Table 2. Once more, participants in the three education groups are compared across the entire data set in the top row, and participants are further subdivided based on region, sex, age, and income in the rows below. Similar to life evaluation, persons with higher education levels are generally happier than those with lower education levels, though there are some noteworthy exceptions. Degrees of freedom are usually used for evaluating Cramer's V in terms of impact sizes. When one degree of freedom is used (as in this analysis), values of 0.10, 0.30, and 0.50 are often interpreted as small, medium, and high effect sizes, respectively. When comparing participants in North America on being treated with respect, the majority of effect sizes are minor, but there is a significant variation, ranging from 0.03 to 0.211 when comparing younger people on pain. Regional disparities in being well rested (comparing Australia and New Zealand to the Middle East and North Africa) are other noteworthy deviations from the general trend of more education being more advantageous. In Australia and New Zealand, as opposed to South Asia, people with the least education also showed a higher degree of calm. However, in North America, as opposed to Latin America and the Caribbean, rage was linked to higher educational attainment.

### ***Quality of Life***

Finally, Table 3 is a summary of findings for the 16 quality of life items. Similar to the other measures of wellbeing, while the rows below separate individuals by area, sex, age, and income, the top row compares participants in the three education groups over the whole data set.

**Table 1** Life evaluation outcomes

| Item                          | Variable       | Factor                           | Least educated <sup>1</sup> |             | Median educated <sup>2</sup> |             | Most educated <sup>3</sup> |             | <i>F</i>       | <i>n</i>       | <i>df</i> | <i>p</i>    | Eta sq       | Better?     |
|-------------------------------|----------------|----------------------------------|-----------------------------|-------------|------------------------------|-------------|----------------------------|-------------|----------------|----------------|-----------|-------------|--------------|-------------|
|                               |                |                                  | $\bar{x}$                   | $\sigma$    | $\bar{x}$                    | $\sigma$    | $\bar{x}$                  | $\sigma$    |                |                |           |             |              |             |
| Life evaluation today         | Overall        |                                  | 5.29                        | 2.63        | 5.96                         | 2.17        | 6.62                       | 1.87        | 7187.70        | 337,919        | 2         | .000        | 0.041        | Most        |
|                               | Region         | <sup>4</sup> North America       | 7.19                        | 2.29        | 6.93                         | 1.90        | 7.49                       | 1.55        | 59.74          | 4987           | 2         | < .001      | 0.023        | Most        |
|                               |                | <sup>5</sup> Mid East & N Africa | 4.81                        | 2.36        | 5.52                         | 2.17        | 6.21                       | 2.06        | 764.11         | 32,184         | 2         | .001        | 0.045        | Most        |
|                               | Sex            | Male                             | 5.17                        | 2.58        | 5.87                         | 2.17        | 6.57                       | 1.91        | 3753.59        | 162,925        | 2         | .000        | 0.044        | Most        |
|                               |                | Female                           | 5.38                        | 2.66        | 6.05                         | 2.16        | 6.68                       | 1.83        | 3557.16        | 174,994        | 2         | .000        | 0.039        | Most        |
|                               | Age            | <sup>6</sup> Younger             | 5.34                        | 2.74        | 5.86                         | 2.22        | 6.34                       | 1.90        | 1070.33        | 114,507        | 2         | .000        | 0.018        | Most        |
|                               |                | <sup>7</sup> Older               | 5.63                        | 2.58        | 6.34                         | 2.09        | 6.93                       | 1.89        | 1486.86        | 64,811         | 2         | .000        | 0.044        | Most        |
|                               | Income         | <sup>8</sup> Poorest             | 5.18                        | 2.72        | 5.75                         | 2.29        | 6.31                       | 2.06        | 608.75         | 50,535         | 2         | < .001      | 0.024        | Most        |
|                               |                | <sup>9</sup> Richest             | 5.54                        | 2.58        | 6.16                         | 2.10        | 6.80                       | 1.79        | 1893.59        | 89,892         | 2         | .000        | 0.040        | Most        |
| Life evaluation in five years | <b>Overall</b> |                                  | <b>6.71</b>                 | <b>2.68</b> | <b>7.36</b>                  | <b>2.23</b> | <b>7.72</b>                | <b>1.93</b> | <b>3747.69</b> | <b>324,255</b> | <b>2</b>  | <b>.000</b> | <b>0.023</b> | <b>Most</b> |
|                               | Region         | <sup>4</sup> Independent states  | 7.65                        | 2.39        | 7.53                         | 2.40        | 7.67                       | 2.25        | 9.82           | 23,920         | 2         | < .001      | 0.001        | Most        |
|                               |                | <sup>5</sup> South Asia          | 5.64                        | 2.94        | 7.02                         | 2.55        | 7.66                       | 2.32        | 724.47         | 17,553         | 2         | < .001      | 0.076        | Most        |
|                               | Sex            | Male                             | 6.60                        | 2.66        | 7.27                         | 2.23        | 7.65                       | 1.93        | 1884.68        | 256,886        | 2         | .000        | 0.023        | Most        |
|                               |                | Female                           | 6.79                        | 2.69        | 7.45                         | 2.23        | 7.78                       | 1.91        | 1945.14        | 167,389        | 2         | .000        | 0.023        | Most        |
|                               | Age            | <sup>6</sup> Younger             | 7.12                        | 2.62        | 7.83                         | 2.08        | 8.12                       | 1.77        | 1286.09        | 113,855        | 2         | .000        | 0.022        | Most        |
|                               |                | <sup>7</sup> Older               | 6.10                        | 2.66        | 6.53                         | 2.26        | 6.93                       | 2.09        | 470.89         | 57,978         | 2         | < .000      | 0.016        | Most        |
|                               | Income         | <sup>8</sup> Poorest             | 6.47                        | 2.78        | 7.10                         | 2.42        | 7.47                       | 2.14        | 486.56         | 48,544         | 2         | < .001      | 0.019        | Most        |
|                               |                | <sup>9</sup> Richest             | 7.01                        | 2.58        | 7.68                         | 2.08        | 7.91                       | 1.81        | 757.59         | 86,541         | 2         | .001        | 0.017        | Most        |

**Table 1** (continued)

| Item                        | Variable       | Factor                          | Least educated <sup>1</sup> |             | Median educated <sup>2</sup> |             | Most educated <sup>3</sup> |             | <i>F</i>       | <i>n</i>       | <i>df</i> | <i>p</i>    | Eta sq       | Better?     |
|-----------------------------|----------------|---------------------------------|-----------------------------|-------------|------------------------------|-------------|----------------------------|-------------|----------------|----------------|-----------|-------------|--------------|-------------|
|                             |                |                                 | $\bar{x}$                   | $\sigma$    | $\bar{x}$                    | $\sigma$    | $\bar{x}$                  | $\sigma$    |                |                |           |             |              |             |
| Life evaluation combination | <b>Overall</b> |                                 | <b>12.15</b>                | <b>4.53</b> | <b>13.41</b>                 | <b>3.77</b> | <b>14.39</b>               | <b>3.30</b> | <b>6105.06</b> | <b>312,371</b> | <b>2</b>  | <b>.000</b> | <b>0.038</b> | <b>Most</b> |
|                             | Region         | <sup>4</sup> Independent states | 13.52                       | 4.12        | 13.35                        | 3.96        | 13.79                      | 3.70        | 34.06          | 23,615         | 2         | <.001       | 0.003        | Most        |
|                             |                | <sup>5</sup> South Asia         | 10.38                       | 4.97        | 12.38                        | 4.23        | 13.42                      | 3.88        | 510.71         | 16,079         | 2         | <.001       | 0.060        | Most        |
|                             | Sex            | Male                            | 11.94                       | 4.49        | 13.23                        | 3.78        | 14.28                      | 3.34        | 3112.89        | 151,280        | 2         | .000        | 0.040        | Most        |
|                             |                | Female                          | 12.31                       | 4.56        | 13.58                        | 3.74        | 14.50                      | 3.26        | 3107.81        | 161,091        | 2         | .000        | 0.037        | Most        |
|                             | Age            | <sup>6</sup> Younger            | 12.62                       | 4.54        | 13.77                        | 3.64        | 14.49                      | 3.17        | 1313.48        | 108,882        | 2         | .000        | 0.024        | Most        |
|                             |                | <sup>7</sup> Older              | 11.81                       | 4.56        | 12.99                        | 3.89        | 13.94                      | 3.58        | 1012.33        | 56,528         | 2         | .000        | 0.035        | Most        |
|                             | Income         | <sup>8</sup> Poorest            | 11.85                       | 4.70        | 12.97                        | 4.04        | 13.87                      | 4.53        | 597.21         | 45,209         | 2         | <.001       | 0.026        | Most        |
|                             |                | <sup>9</sup> Richest            | 12.62                       | 4.40        | 13.89                        | 3.57        | 14.75                      | 3.11        | 1507.52        | 84,819         | 2         | .000        | 0.034        | Most        |

<sup>1</sup> = Completed elementary education or less (up to 8 years of basic education); <sup>2</sup> = Some education beyond secondary education (9–15 years of education) <sup>3</sup> = Completed four years of education beyond high school and/or received a 4-year college degree; <sup>4</sup> Best region for lower educated people relative to higher educated people (as calculated by the differences in mean percentages); <sup>5</sup> = Best region for higher educated people relative to lower educated people (as calculated by the differences in mean percentages); <sup>6</sup> = 30 and under; <sup>7</sup> = 60 and older; <sup>8</sup> = Per capita income quintiles per country – poorest 20%; <sup>9</sup> = Per capita income quintiles per country – richest 20%

**Table 2** Daily emotions/experiences outcomes

| Item                 | Variable       | Factor                           | Least educated <sup>1</sup><br>(% yes) | Median educated <sup>2</sup><br>(% yes) | Most educated <sup>3</sup><br>(% yes) | $X^2$          | $n$            | $df$     | $p$             | Cramer's V   | Better?     |
|----------------------|----------------|----------------------------------|--|---|---------------------------------------|----------------|----------------|----------|-----------------|--------------|-------------|
| Well rested          | <b>Overall</b> |                                  | <b>65.2</b>                            | <b>69.1</b>                             | <b>69.7</b>                           | <b>500.44</b>  | <b>357,525</b> | <b>2</b> | <b>&lt;.001</b> | <b>0.037</b> | <b>Most</b> |
|                      | Region         | <sup>4</sup> Aus/NZ              | 80.2                                   | 73.0                                    | 71.9                                  | 7.38           | 4943           | 2        | .025            | 0.039        | Least       |
|                      |                | <sup>5</sup> Mid East & N Africa | 53.0                                   | 63.5                                    | 70.3                                  | 534.86         | 35,064         | 2        | <.001           | 0.124        | Most        |
|                      | Sex            | Male                             | 65.6                                   | 70.0                                    | 72.0                                  | 395.01         | 171,936        | 2        | <.001           | 0.048        | Most        |
|                      |                | Female                           | 64.9                                   | 68.3                                    | 67.3                                  | 164.08         | 185,589        | 2        | <.001           | 0.030        | Median      |
|                      | Age            | <sup>6</sup> Younger             | 66.7                                   | 71.7                                    | 71.3                                  | 222.51         | 121,353        | 2        | <.001           | 0.043        | Median      |
|                      |                | <sup>7</sup> Older               | 70.7                                   | 73.6                                    | 76.1                                  | 141.94         | 68,381         | 2        | <.001           | 0.046        | Most        |
|                      | Income         | <sup>8</sup> Poorest             | 62.4                                   | 65.2                                    | 66.3                                  | 57.40          | 56,536         | 2        | <.001           | 0.032        | Most        |
|                      |                | <sup>9</sup> Richest             | 69.2                                   | 72.7                                    | 71.6                                  | 58.92          | 92,492         | 2        | <.001           | 0.025        | Median      |
| Treated with respect | <b>Overall</b> |                                  | <b>83.7</b>                            | <b>89.4</b>                             | <b>92.3</b>                           | <b>3416.75</b> | <b>355,227</b> | <b>2</b> | <b>.000</b>     | <b>0.098</b> | <b>Most</b> |
|                      | Region         | <sup>4</sup> North America       | 96.3                                   | 93.0                                    | 94.2                                  | 4.28           | 4986           | 2        | .118            | 0.029        | Least (n/s) |
|                      |                | <sup>5</sup> South Asia          | 73.5                                   | 83.1                                    | 87.7                                  | 405.16         | 20,841         | 2        | <.001           | 0.139        | Most        |
|                      | Sex            | Male                             | 83.5                                   | 88.8                                    | 92.0                                  | 1478.67        | 170,823        | 2        | .001            | 0.093        | Most        |
|                      |                | Female                           | 83.8                                   | 89.9                                    | 92.6                                  | 1990.78        | 184,404        | 2        | <.001           | 0.104        | Most        |
|                      | Age            | <sup>6</sup> Younger             | 80.8                                   | 87.9                                    | 91.5                                  | 1292.22        | 120,797        | 2        | <.001           | 0.103        | Most        |
|                      |                | <sup>7</sup> Older               | 87.0                                   | 91.5                                    | 93.2                                  | 579.03         | 67,568         | 2        | <.001           | 0.093        | Most        |
|                      | Income         | <sup>8</sup> Poorest             | 81.0                                   | 87.0                                    | 89.3                                  | 483.13         | 56,053         | 2        | <.001           | 0.093        | Most        |
|                      |                | <sup>9</sup> Richest             | 85.9                                   | 90.5                                    | 93.6                                  | 670.66         | 92,052         | 2        | <.001           | 0.085        | Most        |
| Learn something new  | <b>Overall</b> |                                  | <b>45.9</b>                            | <b>55.2</b>                             | <b>62.9</b>                           | <b>4864.03</b> | <b>356,598</b> | <b>2</b> | <b>.001</b>     | <b>0.117</b> | <b>Most</b> |
|                      | Region         | <sup>4</sup> Independent states  | 44.2                                   | 46.4                                    | 54.7                                  | 189.24         | 27,591         | 2        | <.001           | 0.083        | Most        |
|                      |                | <sup>5</sup> Europe-other        | 33.8                                   | 47.8                                    | 62.5                                  | 1079.13        | 24,671         | 2        | <.001           | 0.209        | Most        |

**Table 2** (continued)

| Item           | Variable                | Factor                     | Least educated <sup>1</sup><br>(% yes) | Median educated <sup>2</sup><br>(% yes) | Most educated <sup>3</sup><br>(% yes) | $X^2$          | $n$            | $df$        | $p$             | Cramer's V   | Better?     |
|----------------|-------------------------|----------------------------|--|---|---------------------------------------|----------------|----------------|-------------|-----------------|--------------|-------------|
| Smile or laugh | Sex                     | Male                       | 47.8                                   | 56.3                                    | 63.2                                  | 1884.50        | 171,602        | 2           | .001            | 0.105        | Most        |
|                |                         | Female                     | 44.5                                   | 54.2                                    | 62.5                                  | 2917.06        | 184,996        | 2           | <.001           | 0.126        | Most        |
|                | Age                     | <sup>6</sup> Younger       | 51.1                                   | 59.9                                    | 62.4                                  | 738.06         | 121,103        | 2           | <.001           | 0.078        | Most        |
|                |                         | <sup>7</sup> Older         | 38.6                                   | 47.7                                    | 61.7                                  | 1899.22        | 68,179         | 2           | <.001           | 0.167        | Most        |
|                | Income                  | <sup>8</sup> Poorest       | 42.4                                   | 52.6                                    | 59.9                                  | 836.40         | 56,363         | 2           | <.001           | 0.122        | Most        |
|                |                         | <sup>9</sup> Richest       | 49.7                                   | 59.0                                    | 64.8                                  | 854.25         | 92,274         | 2           | <.001           | 0.096        | Most        |
|                | <b>Overall</b>          |                            | <b>68.4</b>                            | <b>73.0</b>                             | <b>73.7</b>                           | <b>792.45</b>  | <b>355,098</b> | <b>2</b>    | <b>&lt;.001</b> | <b>0.047</b> | <b>Most</b> |
|                | Region                  | <sup>4</sup> North America | 81.5                                   | 76.4                                    | 75.6                                  | 2.29           | 4988           | 2           | .318            | 0.021        | Least (n/s) |
|                |                         | <sup>5</sup> South Asia    | 51.6                                   | 65.3                                    | 71.4                                  | 532.86         | 20,893         | 2           | <.001           | 0.160        | Most        |
|                | Sex                     | Male                       | 67.5                                   | 72.3                                    | 72.9                                  | 367.67         | 170,679        | 2           | <.001           | 0.046        | Most        |
| Female         |                         | 69.2                       | 73.7                                   | 74.4                                    | 452.56                                | 184,419        | 2              | <.001       | 0.050           | Most         |             |
| Age            | <sup>6</sup> Younger    | 73.2                       | 78.2                                   | 77.9                                    | 288.42                                | 120,830        | 2              | <.001       | 0.049           | Median       |             |
|                | <sup>7</sup> Older      | 64.0                       | 66.1                                   | 69.9                                    | 149.95                                | 67,736         | 2              | .000        | 0.047           | Most         |             |
| Income         | <sup>8</sup> Poorest    | 64.8                       | 69.4                                   | 71.5                                    | 174.79                                | 56,173         | 2              | <.001       | 0.056           | Most         |             |
|                | <sup>9</sup> Richest    | 72.9                       | 76.3                                   | 75.3                                    | 65.92                                 | 91,884         | 2              | <.001       | 0.027           | Median       |             |
| <b>Overall</b> |                         | <b>61.6</b>                | <b>69.6</b>                            | <b>75.5</b>                             | <b>3812.07</b>                        | <b>355,039</b> | <b>2</b>       | <b>.000</b> | <b>0.104</b>    | <b>Most</b>  |             |
| Region         | <sup>4</sup> Aus/NZ     | 80.2                       | 80.5                                   | 82.0                                    | 1.74                                  | 4948           | 2              | .418        | 0.019           | Most (n/s)   |             |
|                | <sup>5</sup> South Asia | 50.6                       | 68.4                                   | 75.3                                    | 866.78                                | 20,950         | 2              | <.001       | 0.203           | Most         |             |
| Sex            | Male                    | 62.3                       | 69.8                                   | 75.2                                    | 1527.31                               | 170,787        | 2              | .001        | 0.095           | Most         |             |
|                | Female                  | 61.1                       | 69.4                                   | 75.8                                    | 2280.35                               | 184,252        | 2              | <.001       | 0.111           | Most         |             |
| Age            | <sup>6</sup> Younger    | 64.1                       | 71.4                                   | 76.2                                    | 848.52                                | 120,566        | 2              | <.001       | 0.084           | Most         |             |
|                | <sup>7</sup> Older      | 60.3                       | 68.5                                   | 76.4                                    | 1066.31                               | 67,923         | 2              | <.001       | 0.125           | Most         |             |

**Table 2** (continued)

| Item               | Variable            | Factor                           | Least educated <sup>1</sup><br>(% yes) | Median educated <sup>2</sup><br>(% yes) | Most educated <sup>3</sup><br>(% yes) | $X^2$            | $n$            | $df$     | $p$             | Cramer's V   | Better?     |
|--------------------|---------------------|----------------------------------|--|---|---------------------------------------|------------------|----------------|----------|-----------------|--------------|-------------|
| Calmness           | Income              | <sup>8</sup> Poorest             | 57.3                                   | 65.7                                    | 73.0                                  | 676.19           | 56,107         | 2        | <.001           | 0.110        | Most        |
|                    |                     | <sup>9</sup> Richest             | 65.0                                   | 72.6                                    | 76.6                                  | 609.39           | 91,924         | 2        | <.001           | 0.081        | Most        |
|                    | <b>Overall</b>      |                                  | <b>69.4</b>                            | <b>74.2</b>                             | <b>76.8</b>                           | <b>1067.90</b>   | <b>355,600</b> | <b>2</b> | <b>&lt;.000</b> | <b>0.055</b> | <b>Most</b> |
|                    | Region              | <sup>4</sup> Aus/NZ              | 88.7                                   | 82.2                                    | 81.2                                  | 9.24             | 4946           | 2        | .010            | 0.043        | Least       |
|                    |                     | <sup>5</sup> South Asia          | 44.6                                   | 57.7                                    | 54.5                                  | 311.40           | 20,474         | 2        | <.001           | 0.123        | Median      |
|                    | Sex                 | Male                             | 70.4                                   | 75.2                                    | 77.8                                  | 510.56           | 171,119        | 2        | <.001           | 0.055        | Most        |
|                    |                     | Female                           | 68.7                                   | 73.3                                    | 75.8                                  | 516.76           | 184,481        | 2        | <.001           | 0.053        | Most        |
|                    | Age                 | <sup>6</sup> Younger             | 65.5                                   | 76.1                                    | 74.5                                  | 451.36           | 120,471        | 2        | <.001           | 0.061        | Most        |
| <sup>7</sup> Older |                     | 76.5                             | 80.9                                   | 83.5                                    | 250.60                                | 68,165           | 2              | <.001    | 0.061           | Most         |             |
| Pain               | Income              | <sup>8</sup> Poorest             | 67.6                                   | 71.7                                    | 74.1                                  | 120.33           | 56,182         | 2        | <.001           | 0.046        | Most        |
|                    |                     | <sup>9</sup> Richest             | 71.4                                   | 75.6                                    | 78.2                                  | 207.43           | 92,064         | 2        | <.001           | 0.047        | Most        |
|                    | <b>Overall</b>      |                                  | <b>45.0</b>                            | <b>30.1</b>                             | <b>22.4</b>                           | <b>10,416.66</b> | <b>357,230</b> | <b>2</b> | <b>.000</b>     | <b>0.171</b> | <b>Most</b> |
|                    | Region              | <sup>4</sup> Aus/NZ              | 32.3                                   | 28.1                                    | 20.3                                  | 44.21            | 4951           | 2        | <.001           | 0.094        | Most        |
|                    |                     | <sup>5</sup> Mid East & N Africa | 53.3                                   | 31.5                                    | 29.2                                  | 1094.44          | 34,153         | 2        | <.001           | 0.179        | Most        |
|                    | Sex                 | Male                             | 40.6                                   | 27.8                                    | 20.4                                  | 3966.48          | 171,921        | 2        | .001            | 0.152        | Most        |
|                    |                     | Female                           | 48.3                                   | 32.4                                    | 24.3                                  | 6123.06          | 185,658        | 2        | <.001           | 0.182        | Most        |
|                    | Age                 | <sup>6</sup> Younger             | 35.8                                   | 26.0                                    | 20.8                                  | 1442.57          | 121,183        | 2        | <.001           | 0.109        | Most        |
| <sup>7</sup> Older |                     | 54.3                             | 36.7                                   | 26.5                                    | 3059.02                               | 68,645           | 2              | <.001    | 0.211           | Most         |             |
| Worry              | Income              | <sup>8</sup> Poorest             | 48.1                                   | 33.1                                    | 25.3                                  | 1601.90          | 56,598         | 2        | <.001           | 0.168        | Most        |
|                    |                     | <sup>9</sup> Richest             | 41.0                                   | 48.9                                    | 20.7                                  | 1904.87          | 92,486         | 2        | <.001           | 0.144        | Most        |
|                    | <b>Overall</b>      |                                  | <b>48.6</b>                            | <b>40.0</b>                             | <b>37.1</b>                           | <b>2563.43</b>   | <b>357,230</b> | <b>2</b> | <b>.000</b>     | <b>0.085</b> | <b>Most</b> |
| Region             | <sup>4</sup> Aus/NZ | 21.0                             | 28.9                                   | 30.1                                    | 8.95                                  | 4949             | 2              | .011     | 0.043           | Least        |             |

**Table 2** (continued)

| Item    | Variable | Factor                  | Least educated <sup>1</sup><br>(% yes) | Median educated <sup>2</sup><br>(% yes) | Most educated <sup>3</sup><br>(% yes) | $X^2$          | $n$            | $df$     | $p$             | Cramer's V   | Better?       |      |
|---------|----------|-------------------------|--|---|---------------------------------------|----------------|----------------|----------|-----------------|--------------|---------------|------|
| Sadness | Sex      | <sup>5</sup> South Asia | 58.9                                   | 38.2                                    | 32.9                                  | 999.50         | 21,010         | 2        | <.001           | 0.218        | Most          |      |
|         |          | Male                    | 45.9                                   | 38.1                                    | 35.2                                  | 1011.00        | 171,716        | 2        | <.001           | 0.077        | Most          |      |
|         |          | Female                  | 50.6                                   | 41.7                                    | 39.0                                  | 1434.75        | 185,514        | 2        | <.001           | 0.088        | Most          |      |
|         | Age      | <sup>6</sup> Younger    | 42.6                                   | 37.5                                    | 36.9                                  | 225.92         | 121,038        | 2        | <.001           | 0.043        | Most          |      |
|         |          | <sup>7</sup> Older      | 49.2                                   | 37.6                                    | 32.8                                  | 1116.62        | 68,566         | 2        | <.001           | 0.128        | Most          |      |
|         | Income   | <sup>8</sup> Poorest    | 53.7                                   | 45.4                                    | 41.2                                  | 479.57         | 56,532         | 2        | <.001           | 0.092        | Most          |      |
|         |          | <sup>9</sup> Richest    | 42.4                                   | 35.4                                    | 35.3                                  | 221.09         | 92,392         | 2        | <.001           | 0.049        | Median        |      |
|         |          | <b>Overall</b>          | <b>36.2</b>                            | <b>24.8</b>                             | <b>19.6</b>                           | <b>6394.66</b> | <b>357,060</b> | <b>2</b> | <b>.000</b>     | <b>0.134</b> | <b>Most</b>   |      |
|         | Region   | <sup>4</sup> Aus/NZ     | 21.8                                   | 20.1                                    | 19.3                                  | 1.01           | 4950           | 2        | .603            | 0.014        | Most (n/s)    |      |
|         | Stress   | Sex                     | <sup>5</sup> South Asia                | 49.7                                    | 30.8                                  | 24.8           | 921.54         | 21,000   | 2               | <.001        | 0.209         | Most |
|         |          |                         | Male                                   | 32.2                                    | 22.1                                  | 17.4           | 2494.04        | 171,660  | 2               | .001         | 0.121         | Most |
| Female  |          |                         | 39.2                                   | 27.4                                    | 21.8                                  | 3589.46        | 185,400        | 2        | <.001           | 0.139        | Most          |      |
| Age     |          | <sup>6</sup> Younger    | 32.6                                   | 23.3                                    | 19.5                                  | 1249.42        | 121,028        | 2        | <.001           | 0.102        | Most          |      |
|         |          | <sup>7</sup> Older      | 36.7                                   | 25.3                                    | 20.4                                  | 1324.49        | 68,510         | 2        | <.001           | 0.139        | Most          |      |
| Income  |          | <sup>8</sup> Poorest    | 41.6                                   | 31.1                                    | 24.7                                  | 920.39         | 56,475         | 2        | <.001           | 0.128        | Most          |      |
|         |          | <sup>9</sup> Richest    | 30.8                                   | 20.7                                    | 17.7                                  | 928.13         | 92,376         | 2        | <.001           | 0.100        | Most          |      |
|         |          | <b>Overall</b>          | <b>41.6</b>                            | <b>36.2</b>                             | <b>36.7</b>                           | <b>756.05</b>  | <b>355,623</b> | <b>2</b> | <b>&lt;.000</b> | <b>0.046</b> | <b>Median</b> |      |
| Region  |          | <sup>4</sup> Aus/NZ     | 18.5                                   | 32.4                                    | 35.1                                  | 27.64          | 4947           | 2        | <.001           | 0.075        | Least         |      |
| Sex     |          | <sup>5</sup> South Asia | 43.5                                   | 32.9                                    | 25.9                                  | 372.28         | 20,945         | 2        | <.001           | 0.133        | Most          |      |
|         |          | Male                    | 39.3                                   | 34.9                                    | 35.7                                  | 233.27         | 170,989        | 2        | <.001           | 0.037        | Median        |      |
|         | Female   | 43.3                    | 37.6                                   | 37.7                                    | 487.33                                | 184,634        | 2              | <.001    | 0.051           | Most         |               |      |
|         | Age      | <sup>6</sup> Younger    | 38.0                                   | 37.0                                    | 40.1                                  | 71.17          | 120,379        | 2        | <.001           | 0.024        | Median        |      |
|         |          | <sup>7</sup> Older      | 37.7                                   | 26.4                                    | 23.9                                  | 1043.86        | 68,288         | 2        | <.001           | 0.124        | Most          |      |

**Table 2** (continued)

| Item   | Variable             | Factor                             | Least educated <sup>1</sup><br>(% yes) | Median educated <sup>2</sup><br>(% yes) | Most educated <sup>3</sup><br>(% yes) | $X^2$          | $n$            | $df$     | $p$             | Cramer's V   | Better?     |
|--------|----------------------|------------------------------------|--|---|---------------------------------------|----------------|----------------|----------|-----------------|--------------|-------------|
| Anger  | Income               | <sup>8</sup> Poorest               | 46.6                                   | 40.5                                    | 38.9                                  | 240.75         | 56,208         | 2        | <.001           | 0.065        | Most        |
|        |                      | <sup>9</sup> Richest               | 36.6                                   | 33.2                                    | 35.8                                  | 81.61          | 92,023         | 2        | <.001           | 0.030        | Median      |
|        | <b>Overall</b>       |                                    | <b>24.9</b>                            | <b>19.6</b>                             | <b>16.7</b>                           | <b>1837.36</b> | <b>357,095</b> | <b>2</b> | <b>&lt;.000</b> | <b>0.072</b> | <b>Most</b> |
|        | Region               | <sup>4</sup> North America         | 8.6                                    | 17.2                                    | 15.4                                  | 6.45           | 5006           | 2        | .040            | 0.036        | Least       |
|        |                      | <sup>5</sup> Latin Am. & Caribbean | 16.5                                   | 16.4                                    | 31.2                                  | 64.16          | 51,377         | 2        | <.001           | 0.035        | Most        |
|        | Sex                  | Male                               | 22.9                                   | 19.0                                    | 16.5                                  | 520.20         | 171,694        | 2        | <.001           | 0.055        | Most        |
|        |                      | Female                             | 26.4                                   | 20.2                                    | 16.9                                  | 1312.77        | 195,401        | 2        | <.001           | 0.084        | Most        |
|        | Age                  | <sup>6</sup> Younger               | 27.3                                   | 27.8                                    | 19.3                                  | 485.83         | 121,018        | 2        | <.001           | 0.063        | Most        |
|        |                      | <sup>7</sup> Older                 | 18.2                                   | 13.0                                    | 11.2                                  | 422.33         | 68,550         | 2        | <.001           | 0.078        | Most        |
| Income | <sup>8</sup> Poorest | 28.6                               | 23.5                                   | 19.2                                    | 316.89                                | 56,473         | 2              | <.001    | 0.075           | Most         |             |
|        | <sup>9</sup> Richest | 21.6                               | 17.4                                   | 15.4                                    | 250.99                                | 92,381         | 2              | <.001    | 0.052           | Most         |             |

<sup>1</sup> = Completed elementary education or less (up to 8 years of basic education); <sup>2</sup> = Some education beyond secondary education (9–15 years of education) <sup>3</sup> = Completed four years of education beyond high school and/or received a 4-year college degree; <sup>4</sup> Best region for lower educated people relative to higher educated people (as calculated by the differences in mean percentages); <sup>5</sup> = Best region for higher educated people relative to lower educated people (as calculated by the differences in mean percentages); <sup>6</sup> = 30 and under; <sup>7</sup> = 60 and older; <sup>8</sup> = Per capita income quintiles per country – poorest 20%; <sup>9</sup> = Per capita income quintiles per country – richest 20%

**Table 3** Quality of life outcomes

| Item        | Variable       | Factor                      | Least educated <sup>1</sup><br>(% yes) | Median<br>educated <sup>2</sup><br>(% yes) | Most<br>educated <sup>3</sup><br>(% yes) | X <sup>2</sup> | n              | df       | p           | Cramer's V   | Better?     |
|-------------|----------------|-----------------------------|--|--|--|----------------|----------------|----------|-------------|--------------|-------------|
| Contentment | Overall        |                             | 64.0                                   | 75.0                                       | 83.3                                     | 2669.69        | 111,137        | 2        | .000        | 0.155        | Most        |
|             | Region         | <sup>4</sup> Aus/NZ         | 90.3                                   | 85.1                                       | 85.8                                     | 3.55           | 979            | 2        | .169        | 0.026        | Least (n/s) |
|             |                | <sup>5</sup> South Asia     | 54.6                                   | 69.2                                       | 72.2                                     | 140.86         | 5937           | 2        | <.001       | 0.154        | Most        |
|             | Sex            | Male                        | 64.1                                   | 75.1                                       | 82.8                                     | 1115.09        | 50,902         | 2        | <.001       | 0.148        | Most        |
|             |                | Female                      | 63.9                                   | 74.9                                       | 83.8                                     | 1550.08        | 60,235         | 2        | .001        | 0.160        | Most        |
|             | Age            | <sup>6</sup> Younger        | 60.5                                   | 73.0                                       | 79.7                                     | 712.54         | 35,400         | 2        | <.001       | 0.142        | Most        |
|             |                | <sup>7</sup> Older          | 69.5                                   | 78.6                                       | 86.9                                     | 569.41         | 24,687         | 2        | <.001       | 0.152        | Most        |
|             | Income         | <sup>8</sup> Poorest        | 58.1                                   | 69.3                                       | 78.5                                     | 403.15         | 18,497         | 2        | <.001       | 0.148        | Most        |
|             |                | <sup>9</sup> Richest        | 69.8                                   | 79.0                                       | 85.1                                     | 453.78         | 27,990         | 2        | <.001       | 0.127        | Most        |
| Balance     | <b>Overall</b> |                             | <b>51.5</b>                            | <b>64.6</b>                                | <b>76.2</b>                              | <b>3528.52</b> | <b>109,826</b> | <b>2</b> | <b>.000</b> | <b>0.179</b> | <b>Most</b> |
|             | Region         | <sup>4</sup> Aus/NZ         | 80.0                                   | 72.1                                       | 77.1                                     | 4.03           | 981            | 2        | .133        | 0.060        | Least (n/s) |
|             |                | <sup>5</sup> Southeast Asia | 42.0                                   | 71.1                                       | 80.7                                     | 369.68         | 3863           | 2        | <.001       | 0.309        | Most        |
|             | Education      | Male                        | 51.2                                   | 64.4                                       | 76.6                                     | 1666.15        | 50,410         | 2        | <.001       | 0.182        | Most        |
|             |                | Female                      | 51.7                                   | 64.8                                       | 75.8                                     | 1860.97        | 59,416         | 2        | .001        | 0.177        | Most        |
|             | Age            | <sup>6</sup> Younger        | 49.8                                   | 61.9                                       | 71.2                                     | 693.03         | 35,204         | 2        | <.001       | 0.140        | Most        |
|             |                | <sup>7</sup> Older          | 55.1                                   | 69.5                                       | 81.8                                     | 1063.91        | 24,094         | 2        | <.001       | 0.210        | Most        |
|             | Income         | <sup>8</sup> Poorest        | 46.2                                   | 58.9                                       | 69.2                                     | 457.27         | 18,136         | 2        | <.001       | 0.159        | Most        |
|             |                | <sup>9</sup> Richest        | 55.8                                   | 68.6                                       | 78.8                                     | 803.45         | 27,801         | 2        | <.001       | 0.170        | Most        |

**Table 3** (continued)

| Item          | Variable        | Factor                           | Least educated <sup>1</sup><br>(% yes) | Median<br>educated <sup>2</sup><br>(% yes) | Most<br>educated <sup>3</sup><br>(% yes) | X <sup>2</sup> | n              | df             | p           | Cramer's V   | Better?      |
|---------------|-----------------|----------------------------------|--|--|--|----------------|----------------|----------------|-------------|--------------|--------------|
| Inner harmony | <b>Overall</b>  |                                  | <b>64.5</b>                            | <b>75.1</b>                                | <b>83.7</b>                              | <b>2621.72</b> | <b>110,743</b> | <b>2</b>       | <b>.000</b> | <b>0.154</b> | <b>Most</b>  |
|               | Region          | <sup>4</sup> North America       | 87.5                                   | 82.3                                       | 87.5                                     | 5.04           | 993            | 2              | .081        | 0.071        | Equal        |
|               |                 | <sup>5</sup> Southeast Asia      | 63.6                                   | 78.6                                       | 83.1                                     | 4.03           | 981            | 2              | .133        | 0.173        | Most (n/s)   |
|               | Education       | Male                             | 64.8                                   | 75.2                                       | 83.6                                     | 1125.29        | 50,741         | 2              | <.001       | 0.149        | Most         |
|               |                 | Female                           | 64.3                                   | 75.0                                       | 83.8                                     | 1486.04        | 60,002         | 2              | .001        | 0.157        | Most         |
|               | Age             | <sup>6</sup> Younger             | 60.8                                   | 72.0                                       | 78.5                                     | 577.24         | 35,423         | 2              | <.001       | 0.128        | Most         |
|               |                 | <sup>7</sup> Older               | 70.2                                   | 79.4                                       | 87.4                                     | 576.43         | 24,413         | 2              | <.001       | 0.154        | Most         |
|               | Income          | <sup>8</sup> Poorest             | 59.8                                   | 70.6                                       | 80.2                                     | 396.83         | 18,383         | 2              | <.001       | 0.147        | Most         |
|               |                 | <sup>9</sup> Richest             | 68.2                                   | 77.8                                       | 85.0                                     | 538.33         | 27,915         | 2              | <.001       | 0.139        | Most         |
|               | Health problems | <b>Overall</b>                   |  | <b>36.5</b>                                | <b>20.5</b>                              | <b>14.5</b>    | <b>12,722</b>  | <b>258,291</b> | <b>2</b>    | <b>.000</b>  | <b>0.188</b> |
| Region        |                 | <sup>4</sup> North America       | 29.6                                   | 26.1                                       | 17.2                                     | 56.39          | 4998           | 2              | <.001       | 0.106        | Most         |
|               |                 | <sup>5</sup> Mid East & N Africa | 37.5                                   | 16.2                                       | 10.7                                     | 2164.45        | 35,172         | 2              | .000        | 0.248        | Most         |
| Sex           |                 | Male                             | 32.5                                   | 18.7                                       | 13.6                                     | 4644.48        | 172,332        | 2              | .001        | 0.164        | Most         |
|               |                 | Female                           | 39.5                                   | 22.3                                       | 15.4                                     | 7734.15        | 185,959        | 2              | .001        | 0.204        | Most         |
| Age           |                 | <sup>6</sup> Younger             | 21.7                                   | 11.6                                       | 7.7                                      | 2342.76        | 121,571        | 2              | <.001       | 0.139        | Most         |
|               |                 | <sup>7</sup> Older               | 57.5                                   | 39.3                                       | 28.3                                     | 3322.27        | 68,517         | 2              | <.001       | 0.220        | Most         |
| Income        |                 | <sup>8</sup> Poorest             | 39.6                                   | 25.3                                       | 18.2                                     | 1703.52        | 56,659         | 2              | <.001       | 0.173        | Most         |
|               |                 | <sup>9</sup> Richest             | 32.9                                   | 16.5                                       | 12.5                                     | 2661.05        | 92,685         | 2              | <.001       | 0.169        | Most         |

**Table 3** (continued)

| Item                        | Variable       | Factor                          | Least educated <sup>1</sup><br>(% yes) | Median<br>educated <sup>2</sup><br>(% yes) | Most<br>educated <sup>3</sup><br>(% yes) | X <sup>2</sup> | n              | df       | p               | Cramer's V   | Better?     |
|-----------------------------|----------------|---------------------------------|--|--|--|----------------|----------------|----------|-----------------|--------------|-------------|
| People to count on          | <b>Overall</b> |                                 | <b>66.1</b>                            | <b>83.5</b>                                | <b>90.6</b>                              | <b>18,290</b>  | <b>256,947</b> | <b>2</b> | <b>.000</b>     | <b>0.226</b> | <b>Most</b> |
|                             | Region         | <sup>4</sup> Aus/NZ             | 93.1                                   | 94.0                                       | 96.0                                     | 9.22           | 4950           | 2        | .010            | 0.043        | Most        |
|                             |                | <sup>5</sup> South Asia         | 49.8                                   | 73.1                                       | 80.0                                     | 1473.84        | 20,912         | 2        | <.001           | 0.265        | Most        |
|                             | Sex            | Male                            | 65.3                                   | 82.5                                       | 89.3                                     | 7794.24        | 171,585        | 2        | <.001           | 0.213        | Most        |
|                             |                | Female                          | 66.6                                   | 84.4                                       | 91.9                                     | 10,705.42      | 185,362        | 2        | .001            | 0.240        | Most        |
|                             | Age            | <sup>6</sup> Younger            | 67.6                                   | 84.3                                       | 90.6                                     | 4892.88        | 121,189        | 2        | <.001           | 0.201        | Most        |
|                             |                | <sup>7</sup> Older              | 72.3                                   | 86.5                                       | 91.4                                     | 2796.00        | 68,341         | 2        | .000            | 0.202        | Most        |
|                             | Income         | <sup>8</sup> Poorest            | 60.7                                   | 78.5                                       | 86.0                                     | 2717.65        | 56,388         | 2        | <.001           | 0.220        | Most        |
|                             |                | <sup>9</sup> Richest            | 70.9                                   | 85.9                                       | 91.8                                     | 3318.38        | 92,410         | 2        | .000            | 0.189        | Most        |
| Opportunity to make friends | <b>Overall</b> |                                 | <b>75.9</b>                            | <b>77.6</b>                                | <b>78.9</b>                              | <b>121.70</b>  | <b>225,670</b> | <b>2</b> | <b>&lt;.001</b> | <b>0.023</b> | <b>Most</b> |
|                             | Region         | <sup>4</sup> Sub-Saharan Africa | 73.5                                   | 73.2                                       | 66.9                                     | 2.70           | 47,129         | 2        | .259            | 0.008        | Least (n/s) |
|                             |                | <sup>5</sup> EU                 | 72.8                                   | 78.8                                       | 80.5                                     | 53.43          | 45,096         | 2        | <.001           | 0.034        | Most        |
|                             | Sex            | Male                            | 77.4                                   | 79.3                                       | 80.3                                     | 66.71          | 109,579        | 2        | <.001           | 0.025        | Most        |
|                             |                | Female                          | 74.7                                   | 76.0                                       | 77.5                                     | 48.75          | 116,091        | 2        | <.001           | 0.020        | Most        |
|                             | Age            | <sup>6</sup> Younger            | 76.4                                   | 78.9                                       | 80.2                                     | 68.37          | 80,095         | 2        | <.001           | 0.029        | Most        |
|                             |                | <sup>7</sup> Older              | 76.3                                   | 76.6                                       | 78.2                                     | 10.09          | 40,489         | 2        | .006            | 0.016        | Most        |
|                             | Income         | <sup>8</sup> Poorest            | 72.8                                   | 74.1                                       | 74.9                                     | 6.69           | 35,262         | 2        | .035            | 0.014        | Most        |
|                             |                | <sup>9</sup> Richest            | 78.0                                   | 79.8                                       | 80.3                                     | 12.05          | 58,623         | 2        | .002            | 0.014        | Most        |

**Table 3** (continued)

| Item               | Variable       | Factor                             | Least educated <sup>1</sup><br>(% yes) | Median<br>educated <sup>2</sup><br>(% yes) | Most<br>educated <sup>3</sup><br>(% yes) | X <sup>2</sup> | n              | df       | p           | Cramer's V   | Better?     |
|--------------------|----------------|------------------------------------|--|--|--|----------------|----------------|----------|-------------|--------------|-------------|
| Outer harmony      | <b>Overall</b> |                                    | <b>73.5</b>                            | <b>82.2</b>                                | <b>89.5</b>                              | <b>2287.99</b> | <b>111,629</b> | <b>2</b> | <b>.000</b> | <b>0.143</b> | <b>Most</b> |
|                    | Region         | <sup>4</sup> North America         | 100.0                                  | 92.4                                       | 94.6                                     | 2.89           | 995            | 2        | .235        | 0.054        | Least (n/s) |
|                    |                | <sup>5</sup> Southeast Asia        | 73.4                                   | 82.8                                       | 89.0                                     | 65.21          | 3965           | 2        | <.001       | 0.128        | Most        |
|                    | Sex            | Male                               | 72.9                                   | 81.8                                       | 88.6                                     | 979.66         | 51,084         | 2        | <.001       | 0.138        | Most        |
|                    |                | Female                             | 74.0                                   | 82.6                                       | 90.3                                     | 1328.10        | 60,545         | 2        | <.001       | 0.148        | Most        |
|                    | Age            | <sup>6</sup> Younger               | 69.9                                   | 79.7                                       | 86.4                                     | 605.59         | 35,622         | 2        | <.001       | 0.130        | Most        |
|                    |                | <sup>7</sup> Older                 | 78.1                                   | 85.1                                       | 91.7                                     | 465.53         | 24,771         | 2        | <.001       | 0.137        | Most        |
|                    | Income         | <sup>8</sup> Poorest               | 69.7                                   | 78.1                                       | 85.3                                     | 284.34         | 18,581         | 2        | <.001       | 0.124        | Most        |
|                    |                | <sup>9</sup> Richest               | 75.2                                   | 83.8                                       | 90.1                                     | 547.94         | 28,094         | 2        | <.001       | 0.140        | Most        |
| Safe walking alone | <b>Overall</b> |                                    | <b>59.2</b>                            | <b>63.3</b>                                | <b>70.9</b>                              | <b>2712.26</b> | <b>349,737</b> | <b>2</b> | <b>.000</b> | <b>0.088</b> | <b>Most</b> |
|                    | Region         | <sup>4</sup> Latin Am. & Caribbean | 50.2                                   | 44.2                                       | 41.3                                     | 249.26         | 50,603         | 2        | <.001       | 0.070        | Least       |
|                    |                | <sup>5</sup> Aus/NZ                | 58.1                                   | 65.4                                       | 73.7                                     | 41.61          | 4864           | 2        | <.001       | 0.092        | Most        |
|                    | Sex            | Male                               | 66.7                                   | 71.5                                       | 78.7                                     | 1479.69        | 169,521        | 2        | .001        | 0.093        | Most        |
|                    |                | Female                             | 53.4                                   | 55.3                                       | 63.1                                     | 1048.65        | 180,216        | 2        | <.001       | 0.076        | Most        |
|                    | Age            | <sup>6</sup> Younger               | 56.1                                   | 58.2                                       | 66.8                                     | 716.99         | 119,841        | 2        | <.001       | 0.077        | Most        |
|                    |                | <sup>7</sup> Older                 | 58.9                                   | 66.3                                       | 71.6                                     | 678.81         | 65,257         | 2        | <.001       | 0.102        | Most        |
|                    | Income         | <sup>8</sup> Poorest               | 58.1                                   | 62.5                                       | 70.7                                     | 374.56         | 55,175         | 2        | <.001       | 0.082        | Most        |
|                    |                | <sup>9</sup> Richest               | 60.7                                   | 63.5                                       | 70.4                                     | 568.85         | 90,619         | 2        | <.001       | 0.079        | Most        |

**Table 3** (continued)

| Item                   | Variable       | Factor                             | Least educated <sup>1</sup><br>(% yes) | Median<br>educated <sup>2</sup><br>(% yes) | Most<br>educated <sup>3</sup><br>(% yes) | X <sup>2</sup> | n              | df       | p               | Cramer's V   | Better?     |
|------------------------|----------------|------------------------------------|--|--|--|----------------|----------------|----------|-----------------|--------------|-------------|
| Money/property stolen  | <b>Overall</b> |                                    | <b>17.3</b>                            | <b>16.3</b>                                | <b>12.4</b>                              | <b>589.31</b>  | <b>229,333</b> | <b>2</b> | <b>&lt;.000</b> | <b>0.051</b> | <b>Men</b>  |
|                        | Region         | <sup>4</sup> Latin Am. & Caribbean | 13.5                                   | 20.4                                       | 20.1                                     | 212.05         | 36,168         | 2        | <.001           | 0.077        | Least       |
|                        |                | <sup>5</sup> South Asia            | 11.0                                   | 11.2                                       | 10.3                                     | 1.09           | 13,033         | 2        | .578            | 0.009        | Most (n/s)  |
|                        | Sex            | Male                               | 17.3                                   | 16.9                                       | 12.8                                     | 285.75         | 110,552        | 2        | <.001           | 0.051        | Most        |
|                        |                | Female                             | 17.3                                   | 15.7                                       | 12.1                                     | 319.19         | 118,781        | 2        | <.001           | 0.052        | Most        |
|                        | Age            | <sup>6</sup> Younger               | 22.2                                   | 21.0                                       | 16.0                                     | 228.48         | 80,116         | 2        | <.001           | 0.053        | Most        |
|                        |                | <sup>7</sup> Older                 | 11.1                                   | 7.9  | 7.7                                      | 114.62         | 42,529         | 2        | <.001           | 0.052        | Most        |
|                        | Income         | <sup>8</sup> Poorest               | 16.8                                   | 16.0                                       | 13.1                                     | 35.37          | 35,922         | 2        | <.001           | 0.031        | Most        |
|                        |                | <sup>9</sup> Richest               | 18.3                                   | 17.2                                       | 12.7                                     | 243.92         | 59,565         | 2        | <.001           | 0.064        | Most        |
| Assaulted in past year | <b>Overall</b> |                                    | <b>8.7</b>                             | <b>7.1</b>                                 | <b>4.3</b>                               | <b>1269.53</b> | <b>324,739</b> | <b>2</b> | <b>&lt;.000</b> | <b>0.063</b> | <b>Most</b> |
|                        | Region         | <sup>4</sup> Latin Am. & Caribbean | 5.8                                    | 8.9  | 7.6                                      | 120.94         | 51,496         | 2        | <.001           | 0.048        | Least       |
|                        |                | <sup>5</sup> Sub-Saharan Africa    | 14.3                                   | 14.5                                       | 10.6                                     | 62.42          | 69,655         | 2        | <.001           | 0.030        | Most        |
|                        | Sex            | Male                               | 9.7                                    | 7.8  | 4.9                                      | 630.26         | 155,480        | 2        | <.001           | 0.064        | Most        |
|                        |                | Female                             | 8.1                                    | 6.3  | 3.7                                      | 693.01         | 169,259        | 2        | <.001           | 0.064        | Most        |
|                        | Age            | <sup>6</sup> Younger               | 11.8                                   | 9.6  | 6.1                                      | 440.61         | 113,405        | 2        | <.001           | 0.062        | Most        |
|                        |                | <sup>7</sup> Older                 | 4.8                                    | 2.9  | 2.4                                      | 171.64         | 59,614         | 2        | <.001           | 0.054        | Most        |
|                        | Income         | <sup>8</sup> Poorest               | 8.6                                    | 7.3  | 5.0                                      | 88.93          | 51,508         | 2        | <.001           | 0.042        | Most        |
|                        |                | <sup>9</sup> Richest               | 9.0                                    | 7.4  | 4.6                                      | 382.06         | 84,202         | 2        | <.001           | 0.067        | Most        |

**Table 3** (continued)

| Item              | Variable       | Factor                          | Least educated <sup>1</sup><br>(% yes) | Median<br>educated <sup>2</sup><br>(% yes) | Most<br>educated <sup>3</sup><br>(% yes) | X <sup>2</sup> | n              | df       | p               | Cramer's V   | Better?     |
|-------------------|----------------|---------------------------------|--|--|--|----------------|----------------|----------|-----------------|--------------|-------------|
| Enjoy work you do | <b>Overall</b> |                                 | <b>81.1</b>                            | <b>82.9</b>                                | <b>86.2</b>                              | <b>570.06</b>  | <b>215,213</b> | <b>2</b> | <b>&lt;.000</b> | <b>0.051</b> | <b>Most</b> |
|                   | Region         | <sup>4</sup> Aus/NZ             | 89.2                                   | 83.4                                       | 83.6                                     | 2.58           | 2748           | 2        | .275            | 0.031        | Least (n/s) |
|                   |                | <sup>5</sup> South Asia         | 75.6                                   | 85.6                                       | 89.4                                     | 240.00         | 10,255         | 2        | <.001           | 0.153        | Most        |
|                   | Sex            | Male                            | 80.7                                   | 82.5                                       | 85.4                                     | 244.45         | 119,997        | 2        | <.001           | 0.045        | Most        |
|                   |                | Female                          | 81.6                                   | 83.5                                       | 87.2                                     | 331.19         | 95,216         | 2        | <.001           | 0.059        | Most        |
|                   | Age            | <sup>6</sup> Younger            | 76.3                                   | 79.9                                       | 83.0                                     | 223.56         | 71,651         | 2        | <.001           | 0.056        | Most        |
|                   |                | <sup>7</sup> Older              | 87.4                                   | 87.6                                       | 90.8                                     | 49.22          | 22,278         | 2        | <.001           | 0.047        | Most        |
|                   | Income         | <sup>8</sup> Poorest            | 77.2                                   | 79.2                                       | 84.0                                     | 94.78          | 27,481         | 2        | <.001           | 0.059        | Most        |
|                   |                | <sup>9</sup> Richest            | 84.1                                   | 85.3                                       | 87.5                                     | 76.73          | 64,098         | 2        | <.001           | 0.035        | Most        |
| Choice in work    | <b>Overall</b> |                                 | <b>64.7</b>                            | <b>66.4</b>                                | <b>69.3</b>                              | <b>253.16</b>  | <b>214,468</b> | <b>2</b> | <b>&lt;.000</b> | <b>0.034</b> | <b>Most</b> |
|                   | Region         | <sup>4</sup> Independent states | 59.1                                   | 56.3                                       | 57.8                                     | 5.47           | 15,149         | 2        | .065            | 0.019        | Least (n/s) |
|                   |                | <sup>5</sup> Europe-other       | 48.6                                   | 54.5                                       | 69.1                                     | 353.77         | 13,187         | 2        | <.001           | 0.164        | Most        |
|                   | Sex            | Male                            | 65.7                                   | 68.4                                       | 71.6                                     | 220.66         | 119,777        | 2        | <.001           | 0.043        | Most        |
|                   |                | Female                          | 63.6                                   | 63.8                                       | 66.7                                     | 74.89          | 94,691         | 2        | <.001           | 0.028        | Most        |
|                   | Age            | <sup>6</sup> Younger            | 67.1                                   | 71.1                                       | 73.2                                     | 126.47         | 51,579         | 2        | <.001           | 0.042        | Most        |
|                   |                | <sup>7</sup> Older              | 60.1                                   | 58.1                                       | 65.4                                     | 88.12          | 22,123         | 2        | <.001           | 0.063        | Most        |
|                   | Income         | <sup>8</sup> Poorest            | 61.2                                   | 62.6                                       | 67.3                                     | 50.31          | 27,391         | 2        | <.001           | 0.043        | Most        |
|                   |                | <sup>9</sup> Richest            | 67.9                                   | 70.6                                       | 72.0                                     | 39.70          | 63,837         | 2        | <.001           | 0.025        | Most        |

**Table 3** (continued)

| Item                         | Variable       | Factor                           | Least educated <sup>1</sup><br>(% yes) | Median<br>educated <sup>2</sup><br>(% yes) | Most<br>educated <sup>3</sup><br>(% yes) | $X^2$            | $n$            | $df$     | $p$         | Cramer's V   | Better?     |
|------------------------------|----------------|----------------------------------|--|--|--|------------------|----------------|----------|-------------|--------------|-------------|
| Not enough money for food    | <b>Overall</b> |                                  | <b>55.1</b>                            | <b>35.4</b>                                | <b>17.1</b>                              | <b>27,087.14</b> | <b>357,032</b> | <b>2</b> | <b>.000</b> | <b>0.275</b> | <b>Men</b>  |
|                              | Region         | <sup>4</sup> Aus/NZ              | 12.5                                   | 10.6                                       | 6.1                                      | 32.94            | 4951           | 2        | <.001       | 0.082        | Most        |
|                              |                | <sup>5</sup> Mid East & N Africa | 53.0                                   | 31.4                                       | 19.7                                     | 2100.35          | 34,080         | 2        | .001        | 0.248        | Most        |
|                              | Sex            | Male                             | 53.3                                   | 33.9                                       | 16.7                                     | 11,918.46        | 171,597        | 2        | <.001       | 0.264        | Most        |
|                              |                | Female                           | 56.5                                   | 36.7                                       | 17.5                                     | 14,911.71        | 185,435        | 2        | .001        | 0.284        | Most        |
|                              | Age            | <sup>6</sup> Younger             | 57.1                                   | 41.6                                       | 22.9                                     | 5905.34          | 120,801        | 2        | <.001       | 0.221        | Most        |
|                              |                | <sup>7</sup> Older               | 43.7                                   | 19.6                                       | 9.6                                      | 6411.89          | 68,561         | 2        | <.001       | 0.306        | Most        |
|                              | Income         | <sup>8</sup> Poorest             | 61.8                                   | 45.2                                       | 26.8                                     | 3001.57          | 56,399         | 2        | <.001       | 0.231        | Most        |
|                              |                | <sup>9</sup> Richest             | 45.6                                   | 27.9                                       | 13.0                                     | 5803.73          | 92,419         | 2        | .000        | 0.251        | Most        |
| Not enough money for shelter | <b>Overall</b> |                                  | <b>41.9</b>                            | <b>27.8</b>                                | <b>16.8</b>                              | <b>13,432.89</b> | <b>357,239</b> | <b>2</b> | <b>.000</b> | <b>0.194</b> | <b>Most</b> |
|                              | Region         | <sup>4</sup> Aus/NZ              | 4.0                                    | 3.5  | 2.5                                      | 4.82             | 4947           | 2        | .132        | 0.031        | Most (n/s)  |
|                              |                | <sup>5</sup> Southeast Asia      | 47.2                                   | 35.2                                       | 24.5                                     | 664.63           | 20,899         | 2        | <.001       | 0.178        | Most        |
|                              | Sex            | Male                             | 42.0                                   | 27.7                                       | 17.0                                     | 6616.75          | 171,911        | 2        | <.001       | 0.189        | Most        |
|                              |                | Female                           | 41.8                                   | 27.9                                       | 16.6                                     | 7235.17          | 185,328        | 2        | .001        | 0.198        | Most        |
|                              | Age            | <sup>6</sup> Younger             | 46.1                                   | 32.5                                       | 21.6                                     | 3332.28          | 120,959        | 2        | <.001       | 0.166        | Most        |
|                              |                | <sup>7</sup> Older               | 30.5                                   | 15.7                                       | 9.9                                      | 2884.76          | 68,433         | 2        | <.001       | 0.205        | Most        |
|                              | Income         | <sup>8</sup> Poorest             | 45.6                                   | 33.9                                       | 23.4                                     | 1384.92          | 56,399         | 2        | <.001       | 0.157        | Most        |
|                              |                | <sup>9</sup> Richest             | 38.1                                   | 23.8                                       | 14.4                                     | 3124.89          | 92,523         | 2        | .000        | 0.184        | Most        |

**Table 3** (continued)

| Item   | Variable       | Factor                          | Least educated <sup>1</sup><br>(% yes) | Median<br>educated <sup>2</sup><br>(% yes) | Most<br>educated <sup>3</sup><br>(% yes) | X <sup>2</sup> | n              | df       | p           | Cramer's V   | Better?     |
|--|----------------|---------------------------------|--|--|--|----------------|----------------|----------|-------------|--------------|-------------|
| Standard of living (satis-<br>fied vs dissatisfied)  | <b>Overall</b> |                                 | <b>57.8</b>                            | <b>66.4</b>                                | <b>77.0</b>                              | <b>7728.06</b> | <b>354,883</b> | <b>2</b> | <b>.000</b> | <b>0.143</b> | <b>Most</b> |
|  | Region         | <sup>4</sup> Independent states | 68.3                                   | 59.8                                       | 59.7                                     | 56.20          | 27,511         | 2        | <.001       | 0.045        | Least       |
|  |                | <sup>5</sup> Europe-other       | 58.9                                   | 65.9                                       | 82.2                                     | 1030.73        | 24,523         | 2        | <.001       | 0.205        | Most        |
|  | Sex            | Male                            | 57.9                                   | 66.0                                       | 77.0                                     | 3444.07        | 170,748        | 2        | <.001       | 0.142        | Most        |
|  |                | Female                          | 57.7                                   | 66.8                                       | 76.9                                     | 3796.98        | 184,135        | 2        | .001        | 0.144        | Most        |
|  | Age            | <sup>6</sup> Younger            | 59.3                                   | 67.4                                       | 22.3                                     | 1487.70        | 120,598        | 2        | <.001       | 0.111        | Most        |
|  |                | <sup>7</sup> Older              | 62.3                                   | 71.7                                       | 82.0                                     | 1679.09        | 67,741         | 2        | <.001       | 0.157        | Most        |
|  | Income         | <sup>8</sup> Poorest            | 52.6                                   | 59.1                                       | 68.8                                     | 616.95         | 56,001         | 2        | <.001       | 0.105        | Most        |
|  |                | <sup>9</sup> Richest            | 65.3                                   | 72.3                                       | 80.8                                     | 1417.90        | 91,932         | 2        | .000        | 0.124        | Most        |
| Standard of living (analy-<br>sis = getting better vs<br>getting worse – excludes<br>“the same”) | <b>Overall</b> |                                 | <b>41.7</b>                            | <b>48.5</b>                                | <b>49.4</b>                              | <b>3273.73</b> | <b>284,213</b> | <b>2</b> | <b>.000</b> | <b>0.107</b> | <b>Most</b> |
|  | Region         | <sup>4</sup> Independent states | 55.4                                   | 48.5                                       | 43.6                                     | 114.72         | 21,504         | 2        | <.001       | 0.073        | Least       |
|  |                | <sup>5</sup> South Asia         | 39.9                                   | 61.7                                       | 69.0                                     | 1407.37        | 18,195         | 2        | <.001       | 0.278        | Most        |
|  | Sex            | Male                            | 42.2                                   | 49.0                                       | 50.2                                     | 1512.32        | 136,940        | 2        | <.001       | 0.105        | Most        |
|  |                | Female                          | 41.4                                   | 48.0                                       | 48.6                                     | 1719.40        | 147,273        | 2        | .001        | 0.108        | Most        |
|  | Age            | <sup>6</sup> Younger            | 53.0                                   | 63.6                                       | 67.2                                     | 1956.35        | 105,946        | 2        | .000        | 0.136        | Most        |
|  |                | <sup>7</sup> Older              | 30.2                                   | 25.7                                       | 25.5                                     | 23.24          | 45,236         | 2        | <.001       | 0.023        | Least       |
|  | Income         | <sup>8</sup> Poorest            | 35.9                                   | 42.5                                       | 43.0                                     | 522.22         | 45,834         | 2        | <.001       | 0.107        | Most        |
|  |                | <sup>9</sup> Richest            | 49.8                                   | 56.0                                       | 53.5                                     | 368.68         | 73,017         | 2        | <.000       | 0.071        | Most        |

<sup>1</sup> = Completed elementary education or less (up to 8 years of basic education); <sup>2</sup> = Some education beyond secondary education (9–15 years of education) <sup>3</sup> = Completed four years of education beyond high school and/or received a 4-year college degree; <sup>4</sup> Best region for lower educated people relative to higher educated people (as calculated by the differences in mean percentages); <sup>5</sup> = Best region for higher educated people relative to lower educated people (as calculated by the differences in mean percentages); <sup>6</sup> = 30 and under; <sup>7</sup> = 60 and older; <sup>8</sup> = Per capita income quintiles per country – poorest 20%; <sup>9</sup> = Per capita income quintiles per country – richest 20%

Overall, people with high levels of education score substantially higher than those with low levels of education. There were certain outliers, though, much like with everyday feelings and experiences. Participants with lower levels of education performed better than those with greater levels of education in a few situations, with satisfaction and balance (Australia and New Zealand) and inner harmony (Southeast Asia) being two examples of nonsignificant differences. Regarding impact sizes for significant findings, the majority are modest, although there is still a wide range: from 0.008 (sub-Saharan participants regarding the likelihood of forming friendships in comparison to EU participants) to 0.306 (younger participants regarding insufficient funds for food). In terms of the notable exceptions, the least educated in South Asia fared better with regards to the likelihood of having their money stolen. Most of the other instances where the least educated fared better were not significant.

## **Discussion**

The present study explores the relationship between education and different wellbeing indicators using the Gallup World Poll representing countries from all regions of the world. As reported elsewhere (Lomas, 2023), the present study is unique in terms of its international representativeness and the holistic measurement of wellbeing. Overall, life evaluation in the present and future was greater among the most educated group, with similar findings emerging with daily emotions and quality of life outcomes. Although there are notable differences in this pattern of findings that will be later highlighted and explained (especially with respect to regions of the world), the findings point to education being beneficial for wellbeing.

### ***Life Evaluation***

For life evaluation, our findings showed that for both today and the future, individuals with the highest level of education did perform better. One of the supporting arguments for this finding is the potential for education to equip individuals with some psychosocial resources including a sense of belonging that facilitate or promote the experience of wellbeing. Other subjective conditions that might account for the relationship between education and wellbeing, include quality and more fulfilling work, which tend to be linked to higher levels of education (Ngo et al., 2015). These subjective conditions hold the potential of increasing eudaimonic experiences because individuals feel that what they do matters while being able to enjoy a satisfactory standard of living. It is important to mention that this justification might not fully explain the emerging direct relationship as studies have argued that the relationship between education and wellbeing is mostly because of objective socio-economic conditions (for instance, Helliwell, 2003) or because of tested mediated relationship through other factors. Inglehart and Klingemann (2000) believed the absence of a relationship between education and life satisfaction might be due to the lack of consideration of mediating factors including interpersonal networking. Given that the present study does not control or account for other variables such as networking, we cannot conclude that changes in wellbeing are *caused* by differences in levels of education. However, the findings suggest that educational levels are related to and do predict how individuals evaluate their lives. It is necessary to highlight that the effect sizes (0.003 to 0.07) which were relatively small reduces the practical significance of the findings given the large sample size.

The emerging direct relationship shows that higher levels of education in and of itself has some inherent benefits for wellbeing. This finding seems to contradict the argument Michalos (2017) puts forward indicating that when we use narrowed definitions of education, influence and happiness, then such relationship is likely to be non-existent. From a theoretical perspective,

some authors have argued for the need to go beyond the education as investment and to consider its intrinsic value to individuals (Schaafsma, 1976). Brighthouse (2006) and Michalos (2017) suggests that schools are spaces that do not only provide intellectual skills but might foster individual autonomy, strong interpersonal skills and an appreciation of knowledge all of which are indicators of wellbeing.

Given that overall and across the stratified factors, education emerged as beneficial, this would imply that irrespective of where you live, age, sex and income, having a higher level of education allows you to evaluate your life in a positive light. For the present study, higher education might mean immediate utility in terms of its intrinsic value as well as the tangible and intangible resources that one has access to. Regarding evaluation of life for the future, higher educational levels might imply better opportunities and likelihood of being able to improve one's current circumstance in the future if these are not totally satisfactory in the present. Education seems to serve as a resource for making sense of one's current experiences as well as providing a positive outlook for the future (Nikolaev, 2018).

Additionally, education offers a clear advantage by aiding individuals in exploring their own identities and guiding them toward careers that align more closely with their talents, interests, and ambitions. Moreover, within the workforce, education opens up the possibility of pursuing further educational advancements. Typically, higher educational qualifications lead to more diverse employment opportunities and enhanced adaptability to evolving job prospects, such as those resulting from swift technological advancements (Nikolaev, 2018). On theoretical level, the suggested link between education and wellbeing is grounded in the expansion of capabilities, the sense of choice and competency and a certain level of coherence of how the world works. Additionally, as already mentioned education makes access to the necessities of life much more possible allowing people to evaluate their lives positively. This explanation reflects predominant thinking about what wellbeing comprises – experiencing positive feelings; access to financial stability; relationships from educational and work networks as well as work that affords one a sense of fulfilment.

### ***Other Wellbeing Items***

In addition to life evaluation, we explore the extent to which education is beneficial for other wellbeing items including daily emotions and quality of life outcomes. Compared to life evaluation, the data showed more variations across the stratified factors of region, age, sex, and income. Overall, individuals with higher levels of education experienced greater positive emotions including being well-rested, smiling, enjoyment to mention just a few. However, among the negative indicators, the experience of stress was better for those with median education. This finding is in line with arguments that higher levels of education may raise aspirations and eventual frustration if people do not fulfil those aspirations. Individual wellbeing, specifically, stressful experiences may be lessened because the gap between real opportunities and aspirations are manageable among individuals with median education. Furthermore, those with median education might experience lesser income inequality because they will be earning what the majority of the population are receiving (Clark & Oswald, 1996). For instance, individuals who have completed college education are recognized to encounter elevated stress levels linked to joblessness in comparison to those with lower levels of education. Additionally, there is a possibility that individuals who are less content or happy are more inclined to pursue higher education (Veenhoven, 2010), potentially as a quest for a sense of purpose or fulfilment. In terms of the effect sizes, most were moderate despite the large

sample size. This might mean that although the findings can inform practice and policy, such decisions must be made alongside other evidence.

Among the noteworthy variation in the pattern of relationship between education and daily emotions was regional differences. In Australia and New Zealand, the least educated were more well-rested, in contrast to East and North Africa. Relatedly, anger was less experienced among the least educated in North America compared to Latin America and Caribbean. Additionally, in Australia and New Zealand those with the least education had less stress. One explanation that can be offered is the fact that a country's overall welfare might play a role in the direction and strength of relationship between education and wellbeing. When there are fewer job opportunities to match higher levels of education in a particular country then those with lower levels of education might experience better wellbeing. However, in the case of Australia and New Zealand social equalisation might diminish the advantages associated with higher levels of education. This is line with Helliwell (2006) suggesting that in high income countries where opportunities are widespread, the beneficial impact of higher levels of education might not be evident. This explanation supports the finding of the least educated being more satisfied with their standard of living and getting better in independent states as opposed to Europe-other and South Asia, respectively. Furthermore, Ruiu and Ruiu (2019) contended that while atypical job positions are relatively uncommon across all economies, highly educated workers must contend with intense competition to secure these positions, particularly in an environment like Italy where the typical firm is a small, family-owned business (see Manfra, 2002). Thus, there's a chance that highly educated people will become frustrated in this situation.

In the case of North America where the least educated experienced less anger, it is likely that the pressure to succeed and live up to certain societal expectations for those with higher levels of education in such an individualistic context might be responsible for negative emotions of anger among this group. Veenhoven (1996) proposes that individuals with the highest level of education within a society will experience increased happiness only when their education confers a distinct status advantage. However, as these status differences diminish in the most developed societies, higher education may become inversely correlated with happiness. Furthermore, if greater educational attainment leads to heightened expectations that are not met in the labour market, individuals may ultimately experience dissatisfaction, resulting in a negative association between education and life satisfaction. This pattern is particularly probable among highly educated individuals who often work in competitive environments, which is a common scenario in North American countries.

Theoretical models on wellbeing although typically focusing on the individual, is increasingly making room for the influence of social contexts and macro-level dynamics in the understanding of indicators of wellbeing (Lomas et al., 2021; Wissing, 2022). In this respect, Araki (2022) argued that in 'highly skilled societies, educated individuals face the diminishing economic value of their high credentials, and consequently it becomes difficult to maintain relatively higher levels of life satisfaction as compared to less educated counterparts'. Put differently, it could also be argued that in contexts where tertiary degrees are widespread, education as a positional good might not be so apparent (Nikolaev & Rusakov, 2016). As such, focusing the promotion of wellbeing simply on individual attributes and capabilities without consideration wider social contexts might make the impact of those efforts less obvious.

Some differences also emerged in the relationship between education and wellbeing with respect to sex and age, although these variations were few. Our findings demonstrated that females with median education were more well-rested than males with the highest level of

education. A possible explanation for this difference may be discrimination in terms of gender inequality. Evidence has shown that highly educated women tend to receive disproportionately less income compared to their male counterparts (Istat, 2015), this might result in lower levels of education becoming a preferred choice because of less pressure to perform and lesser job demands. The contrast was the case for stress where males with median education experienced less stress. Perhaps the likelihood for males to earn higher income despite having median education might result in them experiencing less stress compared females with higher levels of education who have to not only compete for fewer appropriate job positions but also struggle with disproportionate pay.

In terms of age, younger individuals with median education were less likely to experience stress. A probable explanation is that younger individuals with median education might have less frustrated aspirations that could result in stress. Younger adults compared to older individuals might also feel that they still have time to pursue their dreams, hence less experience of stress. When several positional goods interact with wellbeing, the picture becomes less clear. Hence our findings showing that in some instances younger adults fare better off and in other circumstances older adults benefitting from higher levels of education. This also applies to findings of sex. Sex, age and other positional goods have been found to yield inconsistent findings in their relationship with wellbeing because social standing is largely determined by the socio-cultural context (Wilson et al., 2022).

A closer look at quality-of-life outcomes showed that, the least educated fared better in terms of the likelihood of being assaulted. More so, the least educated in Latin America and the Caribbean felt safe walking alone compared to other regions. This might be attributed to the fact they do not have many resources to attract individuals that might want to exert such assault. Research did point out that higher levels of education might be linked greater daily hassles (Niemeyer et al., 2019), one of which might be the likelihood of assault in crime-ridden communities (Bergman, 2018). Furthermore, the regional analyses provided in the introduction showed that Latin America had positive life evaluations that were comparable to North American countries (Helliwell et al., 2020), which might explain our current finding.

### **Limitations of the study**

We acknowledge that despite the important contributions that the present study provides, there are limitations to the conclusions that can be drawn. The cross-sectional nature of the study does not allow for drawing causal conclusions about the relationship between education and wellbeing. In addition, we are cognisant of the fact that some of the effect sizes might be due to the large sample size used in the study. Furthermore, some of the difference across the demographic variables require further clarification. For instance, the inconsistent pattern of relationships between education and wellbeing across sex. Qualitative research to clarify instances where individuals with less education fared better might be warranted. More so, longitudinal studies might provide additional evidence on the importance of education for wellbeing as causal inferences can be drawn, while other explanatory variables that might confound this relationship can be accounted for.

### **Implications of the study**

The findings of the study showed that education is beneficial for different indicators of wellbeing, measured in terms of life evaluation, daily emotions and quality of life outcomes. For life evaluation and quality of life outcomes, there were little variations in the trend of

relationship between education and wellbeing. This would imply that efforts at improving quality and access to education in different regions of the world and among different groups is worthwhile. Both its intrinsic value and returns on education make it a valuable opportunity for intervention in efforts to improve individual wellbeing.

The variations that were emerging from the data, for instance, regional, age and sex differences in the relationship between education and wellbeing was mostly found in daily emotions, and emotions are fickle. In terms of regional differences, it was common for the least education to fair better in nations that prioritise social equalisation and where there is minimum disparity in income across different education levels. An important implication is that in order to improve wellbeing, especially in unequal societies, policy interventions might need to go beyond education to explore other ways in which more individuals have access to basic goods necessary for better quality of life. For instance, interventions that ensure appropriate minimum wages across all occupations.

The use of multidimensional or holistic wellbeing measures and stratification by specific demographic characteristics provides a comprehensive picture of how education may be related to wellbeing. For example, given that most of the variations in the data pertained country or region of residence, this would mean that as much as education might be beneficial to wellbeing, individual country conditions are equally critical. Regional differences point to the need to consider objective social conditions in a particular country when determining appropriate wellbeing interventions. Appropriate policy interventions are needed to leverage the potential of education by making job opportunities for higher levels of education available in countries where these are sparse. Such jobs should not only be rewarding in terms of income but subjective conditions such as job satisfaction, a sense of fulfilment and an experience of meaning. Other applied implications of the study points to the potential to promote indicators functioning such as a sense of direction, competency and autonomy within educational settings in order to capitalise on the intrinsic or inherent benefits of education.

## **Conclusions**

The present study sought to add evidence on the possible relationship between education and wellbeing. Education is regarded as an economic resource that has the potential to improve wellbeing. However, there have been inconsistent findings on the viability of this relationship. Where no relationship seems to exist, it is suggested that mediating variables such as the overall welfare of a country might be worth considering. Our findings showed that overall, education may be beneficial for wellbeing but this may be dependent on which region of the world one lives and in a few instances gender and age. Specifically, individuals living in developed countries and welfare states *do not seem* to benefit from greater levels of education. For instance, Australia and New Zealand are best regions for the least educated. Similarly, in Latin America, the least educated seemed to feel safer as they could walk alone and were less likely to be assaulted. It is also useful to point out daily emotions had more heterogeneity in the data compared to life evaluations and quality of life outcomes. Our findings suggest that although there is the obvious intrinsic benefit of education for wellbeing, appropriate policy interventions are needed to fully leverage the advantages of education especially among individuals in developing countries.

## **Ethics Approval**

Approval for the study was granted by the Human Flourishing Program, Harvard University.

## Research Involving Human Participants

Data collection was undertaken in accordance with the standard and established protocol of the GWP.

## Informed Consent

All participants were duly informed of the aims of the study and voluntarily participated in the study. Data collection was undertaken in accordance with the standard and established protocol of the GWP.

## Disclosure of Potential Conflicts of Interest

The authors have no competing interests to declare that are relevant to the content of this article.

## Data Availability

The data that support the findings of this study are available from the Gallup World Poll, but restrictions apply to the availability of these data. The data are, however, available from the authors upon reasonable request and with the permission of Gallup World Poll.

## References

Alesina, A., Di Tella, R., & MacCulloch, R. (2004). Inequality and happiness: Are Europeans and Americans different? *Journal of Public Economics*, 88(9–10), 2009–2042. <https://doi.org/10.1016/j.jpubeco.2003.07.006>

Araki, S. (2022). Does education make people happy? Spotlighting the overlooked societal condition. *Journal of Happiness Studies*, 23, 587–629. <https://doi.org/10.1007/s10902-021-00416-y>

Becker, G. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Columbia University Press.

Bergman, M. (2018). *More money, more crime: Prosperity and rising crime in Latin America*. Oxford University Press.

Blanchflower, D. G., & Oswald, A. J. (2008). Is wellbeing U-shaped over the life cycle? *Social Science & Medicine*, 66(8), 1733–1749. <https://doi.org/10.1016/j.socscimed.2008.01.030>

Brighouse, H. (2006). *On education*. Routledge.

Chen, W.-C. (2012). How education enhances happiness: Comparison of mediating factors in four East Asian countries. *Social Indicators Research*, 106, 117–131. <https://doi.org/10.1007/s11205-011-9798-5>

Clark, A. E., & Oswald, A. J. (1994). Unhappiness and unemployment. *The Economic Journal*, 104(424), 648–659. <https://doi.org/10.2307/2234639>

- Clark, A. E., & Oswald, A. J. (1996). Satisfaction and comparison income. *Journal of Public Economics*, 61(3), 359–381. [https://doi.org/10.1016/0047-2727\(95\)01564-7](https://doi.org/10.1016/0047-2727(95)01564-7)
- Cuñado, J., & de Gracia, F. P. (2012). Does education affect happiness? Evidence for Spain. *Social Indicators Research*, 108, 185–196. <https://doi.org/10.1007/s11205-011-9874-x>
- Di Tella, R., MacCulloch, R. J., & Oswald, A. J. (2001). Preferences over inflation and unemployment: Evidence from surveys of happiness. *The American Economic Review*, 91(1), 335–341. <https://doi.org/10.1257/aer.91.1.335>
- Dockery, A. M. (2003). *Happiness, life satisfaction and the role of work: Evidence from two Australian surveys*. Curtin University of Technology, Western Australia.
- Hartog, J., & Oosterbeek, H. (1998). Health, wealth and happiness: Why pursue a higher education? *Economics of Education Review*, 17(3), 245–256. [https://doi.org/10.1016/S0272-7757\(97\)00064-2](https://doi.org/10.1016/S0272-7757(97)00064-2)
- Headey, B., & Wooden, M. (2004). The effects of wealth and income on subjective wellbeing and ill-being. *Economic Record*, 80(Suppl. 1), S24–S33. <https://doi.org/10.1111/j.1475-4932.2004.00181.x>
- Helliwell, J. F. (2003). How's life? Combining individual and national variables to explain subjective wellbeing. *Economic Modelling*, 20(2), 331–360. [https://doi.org/10.1016/S0264-9993\(02\)00057-3](https://doi.org/10.1016/S0264-9993(02)00057-3)
- Helliwell, J. F. (2006). Well-being, social capital and public policy: What's new? *The Economic Journal*, 116(510), C34–C45. <https://doi.org/10.1111/j.1468-0297.2006.01074.x>
- Helliwell, J., Layard, R., & Sachs, J. (Eds.). (2012). *World happiness report*. Sustainable Development Solutions Network. <https://worldhappiness.report/ed/2012/>. Accessed 23 November 2023.
- Helliwell, J. F., Layard, R., Sachs, J., & Jan-Emmanuel De Neve, J.-E. (Eds.). (2020). *World happiness report 2020*. Sustainable Development Solutions Network. <https://worldhappiness.report/ed/2020/>. Accessed 21 November 2023.
- Hickson, H., & Dockery, A. M. (2008). *Is ignorance bliss: Exploring the links between education, expectations and happiness* [Paper Presentation]. 37th Australian Conference of Economists. <http://hdl.handle.net/20.500.11937/11362>. Accessed 30 November 2023
- Hobfoll, S. E. (2011). Conservation of resources theory: Its implication for stress, health, and resilience. *The Oxford Handbook of Stress, Health, and Coping*, 127, 147.
- Huta, V. (2016). Eudaimonic and hedonic orientations: Theoretical considerations and research findings. *Handbook of eudaimonic well-being*, 215–231.
- Huong, N. T., Ha, L. T. H., & Tien, T. Q. (2017). Determinants of health-related quality of life among elderly: evidence from Chi Linh Town, Vietnam. *Asia Pacific Journal of Public Health*, 29(5, Suppl), S84–S93. <https://doi.org/10.1177/1010539517704041>

Huppert, F. A. (2009). Psychological wellbeing: Evidence regarding its causes and consequences. *Applied Psychology: Health and Wellbeing*,1(2), 137–164. <https://doi.org/10.1111/j.1758-0854.2009.01008.x>

Ilies, R., Yao, J., Curseu, P. L., & Liang, A. X. (2019). Educated and happy: A four-year study explaining the links between education, job fit, and life satisfaction. *Applied Psychology: An International Review*,68(1), 150–176. <https://doi.org/10.1111/apps.12158>

Inglehart, R., & Klingemann, H.-D. (2000). Genes, culture, democracy, and happiness. In E. Diener & E. M. Suh (Eds.), *Culture and subjective well-being*. MIT Press. <https://doi.org/10.7551/mitpress/2242.001.0001>

ISTAT (Italian National Statistical Institute). (2015). *L'inserimento professionale dei dottori di ricerca Anno 2014, Statistiche Report*. Retrieved 20, June 2024, from [http://www.istat.it/it/files/2015/01/Dottori-di-ricerca\\_DEF.pdf?title=Inserimento+professionale+dei+dottori+di+ricerca+-+21%2Fgen%2F2015+-+Testo+integrale.pdf](http://www.istat.it/it/files/2015/01/Dottori-di-ricerca_DEF.pdf?title=Inserimento+professionale+dei+dottori+di+ricerca+-+21%2Fgen%2F2015+-+Testo+integrale.pdf)

Jongbloed, J. (2018). Higher education for happiness? Investigating the impact of education on the hedonic and eudaimonic wellbeing of Europeans. *European Educational Research Journal*,17(5), 733–754.

Joshanloo, M. (2018). Longitudinal associations between subjective and psychological well-being in Japan: A four-year cross-lagged panel study. *Personality and Individual Differences*, 134, 289–292.

Lim, H.-E., Shaw, D., Liao, P. S., & Duan, H. (2020). The effects of income on happiness in East and South Asia: Societal values matter? *Journal of Happiness Studies*, 21(2), 391–415.

Lomas, T. (2023). Exploring associations between income and wellbeing: New global insights from the Gallup World Poll. *The Journal of Positive Psychology*. Advance online publication. <https://doi.org/10.1080/17439760.2023.2248963>

Lomas, T., Waters, L., Williams, P., Oades, L. G., & Kern, M. L. (2021). Third wave positive psychology: Broadening towards complexity. *The Journal of Positive Psychology*, 16(5), 660–674.

Lomas, T., & VanderWeele, T. J. (2022). The garden and the orchestra: Generative metaphors for conceptualizing the complexities of well-being. *International Journal of Environmental Research and Public Health*,19(21), 14544. <https://doi.org/10.3390/ijerph192114544>

Manfra, P. (2002). Entrepreneurship, firm size and the structure of the Italian economy. *Journal of Entrepreneurial Finance and Business Ventures*,7(3), 99–111. <https://doi.org/10.57229/2373-1761.1100>

Michalos, A. C. (2017). *Connecting the quality of life theory to health, wellbeing and education: The selected works of Alex C.* Springer. <https://doi.org/10.1007/978-3-319-51161-0>

- Ngoo, Y. T., Tey, N. P., & Tan, E. C. (2015). Determinants of life satisfaction in Asia. *Social Indicators Research*, *124*(1), 141–156. <https://doi.org/10.1007/s11205-014-0772-x>
- Niemeyer, H., Bieda, A., Michalak, J., Schneider, S., & Margraf, J. (2019). Education and mental health: Do psychosocial resources matter? *SSM- Population Health*, *7*, e100392. <https://doi.org/10.1016/j.ssmph.2019.100392>
- Nikolaev, B. (2018). Does higher education increase hedonic and eudaimonic happiness? *Journal of Happiness Studies*, *19*, 483–504. <https://doi.org/10.1007/s10902-016-9833-y>
- Nikolaev, B., & Rusakov, P. (2016). Education and happiness: An alternative hypothesis. *Applied Economics Letters*, *23*(12), 827–830. <https://doi.org/10.1080/13504851.2015.1111982>
- Patria, B. (2022). Modeling the effects of physical activity, education, health, and subjective wealth on happiness based on Indonesian national survey data. *BMC Public Health*, *22*(1), 959.
- Powdthavee, N., Lekfuangfu, W. N., & Wooden, M. (2015). What's the good of education on our overall quality of life? A simultaneous equation model of education and life satisfaction for Australia. *Journal of Behavioral and Experimental Economics*, *54*, 10–21. <https://doi.org/10.1016/j.socec.2014.11.002>
- Rodríguez-Pose, A., & von Berlepsch, V. (2014). Social capital and individual happiness in Europe. *Journal of Happiness Studies*, *15*, 357–386. <https://doi.org/10.1007/s10902-013-9426-y>
- Ruiu, G., & Ruiu, M. L. (2019). The complex relationship between education and happiness: The case of highly educated individuals in Italy. *Journal of Happiness Studies*, *20*, 2631–2653. <https://doi.org/10.1007/s10902-018-0062-4>
- Salinas-Jiménez, M. M., Artés, J., & Salinas-Jiménez, J. (2011). Education as a positional good: A life satisfaction approach. *Social Indicators Research*, *103*, 409–426. <https://doi.org/10.1007/s11205-010-9709-1>
- Schaafsma, J. (1976). The consumption and investment aspects of the demand for education. *The Journal of Human Resources*, *11*(2), 233–242. <https://doi.org/10.2307/145456>
- Schultz, T. W. (1960). Capital formation by education. *Journal of Political Economy*, *68*(6), 571–583.
- VanderWeele, T. J. (2017). On the promotion of human flourishing. *Proceedings of the National Academy of Sciences*, *114*(31), 8148–8156. <https://doi.org/10.1073/pnas.1702996114>
- Veenhoven, R. (2010). Greater Happiness for a Greater Number. *Journal of Happiness Studies*, *11*, 605–629. <https://doi.org/10.1007/s10902-010-9204-z>
- Veenhoven, R. (1996). Happy life-expectancy: A comprehensive measure of quality-of-life in nations. *Social Indicators Research*, *39*, 1–58. <https://doi.org/10.1007/BF00300831>

Wilson Fadji, A., Meiring, L., & Wissing, M. P. (2021). Understanding well-being in the Ghanaian context: Linkages between lay conceptions of well-being and measures of hedonic and eudaimonic well-being. *Applied research in quality of life*, 16(2), 649–677.

Wissing, M. P. (2022). Beyond the “third wave of positive psychology”: Challenges and opportunities for future research. *Frontiers in Psychology*, 12, 795067.