

Happiness in Italy: Translation, Factorial Structure and Norming of the Subjective Happiness Scale in a Large Community Sample

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Abstract The Subjective Happiness Scale (SHS) is one of the most commonly used measures of happiness. Many translations and validation studies have been carried out in different countries and languages. The aim of the current paper was to investigate the psychometric properties of the Italian translation of the SHS and to provide normative data. The SHS was administered with life satisfaction items, anxiety and depression scales to a community sample of 993 participants, aged 18–85 years, living in different parts of Italy. Age and gender distributions were stratified according to the population pyramid. Confirmatory Factor Analysis supported the unidimensionality of the SHS, with acceptable fit indexes (NNFI = .96; CFI = .99; RMSEA = .08; 95 % C.I. [.04–.12]). Multi-group analyses supported total invariance of the SHS measurement model for males and females, and partial invariance for younger (i.e., 18–44 years old) and older (i.e., 45–85 years old) participants. Significant correlations with satisfaction items, anxiety and depression provided evidence for concurrent validity. These findings showed that the Italian SHS translation is a reliable and valid tool, which adds to existing translations and validation studies in different countries and languages.

Keywords Subjective happiness · Confirmatory factor analysis · Reliability · Validity · Normative data · Italy

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1 Introduction

Extensive research on happiness has been carried out during the last two decades (e.g., Luhmann et al. 2012). Two different traditions have gained a prominent role in happiness research: One that focuses on psychological well-being (i.e., human potentials to reach optimal functioning; Ryff and Keyes 1995) and one that focuses mainly on subjective well-being (SWB; i.e., people's daily experiences of positive and negative emotions and their global judgments of life satisfaction; Diener et al. 1999). These two traditions are typically called eudaimonic and hedonic well-being, respectively (Ryan and Deci 2001). Although theoretically distinct, empirical studies have suggested that both perspectives tap largely overlapping constructs (Kashdan et al. 2008).

The study of subjective happiness fits within the hedonic tradition, in which researchers typically assess subjective well-being by averaging positive and negative emotions (e.g., Affect Balance Scale; Bradburn 1969 or Positive and Negative Affect Schedule; Watson et al. 1988) and satisfaction with life (The Satisfaction With Life Scale; Diener et al. 1985, 1999). However, directly asking people about their happiness is not the same as assessing their happiness by averaging life satisfaction and affect frequencies (Lyubomirsky and Lepper 1999). Indeed, recent empirical studies provided empirical support for the differentiation of subjective happiness and typical measurements of subjective well-being. Specifically, studies have found positive correlations between subjective happiness and life satisfaction of about .50 (e.g., Purvis et al. 2011), but not so large as to support a full overlap of the two constructs. Likewise, other studies have found the relationship between subjective happiness and positive and negative mood states to be about .40, thereby reinforcing the view that subjective happiness and mood states do not overlap (e.g., Gallagher et al. 2009; Howell et al. 2010).

For example, one can have a bad week in which stress and anxiety were high and amusement and contentment were low, but still consider himself or herself a happy person. Similarly, one might be satisfied with life if he or she has all of life's necessities (e.g., a job, a home, a family), but not be truly happy. Thus, being a happy person is not just a matter of experiencing more positive affect than negative affect or being generally satisfied with one's life (or the average of those three components; Lyubomirsky and Lepper 1999). People tend to know when they are happy, and, possibly, asking them directly might be the most valid way to measure happiness. Furthermore, asking people about their happiness also takes into account some lay conceptions of happiness (or whatever they think happiness is composed of) and therefore might be more accurate to describe one's feelings about life in general.

Based on data collected on North American and Russian samples, Lyubomirsky and Lepper (1999) developed the Subjective Happiness Scale (SHS), which has been found to possess high internal consistency, good to excellent test–retest reliability, a unidimensional structure, and good convergent and discriminant validity. Since then, the SHS has gained increasing popularity and it is currently one of the most commonly used measures of global happiness, in correlational studies involving different self-report scales and health outcomes as criteria (see Lyubomirsky et al. 2005).

The SHS has now been translated and validated in multiple languages, such as Japanese (Shimai et al. 2004), Malaysian (Swami 2008), German and Tagalog (Swami et al. 2009), Spanish (Extremera et al. 2009; Vera-Villarroel et al. 2011), French and Arabic (Salama-Younes 2010; Moghnie and Kazarian 2012), and Portuguese (Pais-Ribeiro 2012; Spagnoli et al. 2012).

All the SHS validation studies reported a unidimensional structure for the scale with satisfactory reliability coefficients. However, some country specific effects have emerged, with item 4 (see “[Appendix](#)”) resulting in higher factor loading in German and Malay languages than in Spanish and Arabic ones (e.g., Extremera et al. 2009; Moghnie and Kazarian 2012; Vera-Villarroel et al. 2011). Other cross-cultural differences emerged when comparing the SHS total score resulting from Asian samples and British and Austrian samples, with the latter showing greater subjective happiness. Most studies reported no sex, ethnic, or age differences in SHS scores, except for nationality (Study 3 in Swami et al. 2009), type of college campus (e.g., college youth attending the private universities reported greater happiness scores than those attending the public ones; Moghnie and Kazarian 2012), and age groups (e.g., adults reported greater happiness scores than adolescents, and greater happiness than university students; Vera-Villarroel et al. 2011).

As further validation of the use of the SHS in Italy, we seek to explore relationships between the SHS and other important life satisfaction and mental health variables (e.g., anxiety, depression, satisfaction with health, career, and economic situation). A recent meta-analytic study (Lyubomirsky et al. 2005) revealed that happiness is related to a number of successful outcomes such as sociability and activity, prosocial behavior, positive perceptions of self and others, strong body and immune systems, and effective negotiation and conflict resolution skills. Furthermore, this study revealed that happiness precedes (and likely leads to) fulfilling and productive work, satisfying social relationships, superior mental and physical health, and longevity. Therefore, if the Italian translation of the SHS is valid, we expect to find similar relationships between the Italian SHS and positive life outcomes.

In sum, the purpose of the present study is to evaluate the reliability and validity of the SHS in a relatively large Italian community sample, balanced for age and gender. Preliminary results of the relationship between Subjective Happiness and self-report measures of Health, Life Satisfaction and Psychological Distress are also provided.

2 Method

2.1 Participants

A total of 993 participants aged 18–85 years (median age category 45–54 years; females = 51.7 %), living in five regions in the north, the center and the south of Italy, voluntarily participated in a study presented as a citizen satisfaction survey. Trained interviewers recruited potential participants from public places (e.g., streets, squares, parks), waiting places (e.g., bus or railway stations) or from places open to the public (e.g., senior centers). Information about the importance of their cooperation, expected completion time and warranty for anonymity and confidentiality were given. Participants were free to decide whether to participate or not. Less than 10 % of the subjects refused to do so. Those who agreed to participate were required to voluntarily provide their socio-demographic characteristics (gender, age, education, marital status, and so forth). Although the sample was based on convenience rather than randomly drawn from a target population, a stratified approach was used. More specifically, we collected about 200 participants from each of the regions and defined gender and age quotas in keeping with the Italian population pyramid. Quotas for other demographics were not imposed. Table 1 reports sample descriptive statistics.

Table 1 Sample descriptive statistics

	<i>n</i> (%)	SHS	
		<i>M</i> (<i>SD</i>)	<i>F</i>
Gender			.59
Male	480 (48.3)	4.74 (1.22)	
Female	513 (51.7)	4.80 (1.21)	
Age			5.55***
18–19	22 (2.2)	5.00 (1.07)	
20–24 ^a	60 (6.0)	5.23 (1.13)	
25–34 ^b	148 (14.9)	4.96 (1.22)	
35–44 ^c	195 (19.6)	4.83 (1.29)	
45–54 ^d	179 (18.0)	4.88 (1.19)	
55–59 ^{a,b,c,d}	74 (7.5)	4.07 (1.40)	
60–64	76 (7.7)	4.56 (1.00)	
65–74	121 (12.2)	4.65 (1.14)	
75–85	118 (11.9)	4.71 (1.11)	
Geographic area			2.04
North	199 (20.0)	4.89 (1.28)	
Center	400 (40.3)	4.80 (1.18)	
South	394 (39.7)	4.69 (1.22)	
Marital status			3.87**
Married	494 (49.7)	4.84 (1.10)	
Unmarried	286 (28.8)	4.88 (1.30)	
Separated/divorced	93 (9.4)	4.45 (1.45)	
Widow	104 (10.5)	4.50 (1.16)	
Other/unspecified	16 (1.6)	4.75 (1.54)	
Education			3.81**
Elementary	85 (8.6)	4.57 (1.23)	
Middle School ^e	202 (20.3)	4.56 (1.16)	
High School	453 (45.6)	4.81 (1.22)	
University ^e	244 (24.6)	4.97 (1.23)	
Other/unspecified	9 (.9)	4.64 (1.29)	
Occupational status			9.69***
Employed ^f	483 (48.6)	4.94 (1.14)	
In search of employment ^{f,g,h,i,j}	62 (6.2)	3.86 (1.60)	
Housewife ^g	97 (9.8)	4.56 (1.13)	
Student ^h	59 (5.9)	5.08 (1.17)	
Retired ⁱ	199 (20.0)	4.61 (1.14)	
Temporary worker ^j	52 (5.2)	4.98 (1.19)	
Other/unspecified	34 (3.4)	4.73 (1.42)	
Economic status			6.50*
Below the poverty line	610 (62.2)	4.70 (1.28)	
Above the poverty line	371 (37.8)	4.90 (1.12)	

Post-Hoc (Sheffé): ^a $t = 1.15, p < .001$; ^b $t = .89, p < .01$; ^c $t = .76, p < .01$; ^d $t = .81, p < .01$; ^e $t = .41, p < .05$; ^f $t = 1.08, p < .001$; ^g $t = .70, p < .05$; ^h $t = 1.23, p < .001$; ⁱ $t = .75, p < .01$; ^j $t = 1.12, p < .001$; * $p < .05$; ** $p < .01$; *** $p < .001$

2.2 Measures

2.2.1 Subjective Happiness

The translation process involved back-translations procedures performed separately by two independent translators, in order to verify the equivalence of meaning of the items between the two versions of the SHS. Specifically, the English version of the instrument was translated into Italian by an Assistant Professor of English expert in translation and then back-translated into English by an independent bilingual professional, blind to the content of the original version. The pre-final version was administered to a small sample of 10 participants to ensure understandability and clarity of instructions, items and response format. Based on this pre-test, the text format of item 4 was changed by emphasizing negations adverbs in bold-type font. This served to draw respondent's attention to the negative semantic form of the text. The final Italian translation is reported in the "Appendix".

2.2.2 Satisfaction Questionnaire

Four satisfaction questions preceded the SHS in our survey. We took those questions from the national "multipurpose survey on households: aspects of daily life—general part" (ISTAT 2010) included in the National Statistic Programme, which gathers the statistical investigations needed for the Italian Census. Question 1 asked: "Think about the last 12 months. Are you satisfied with the following domains of your life?" (Leisure, Health, Family relationships, Relationships with friends, Economic situation). Likewise, Question 2 and 3 asked: "Think about the last 12 months. Are you satisfied with the state of the environment (air, water, noise, etc.) in the area where you live?" and "Think about the last 12 months. Are you satisfied with your work?", respectively. Response scale for questions 1–3 was from 1 (*very much*) to 4 (*not at all*). Question 4 is a single-item measure of SWB assessing global satisfaction with life: "Currently, how satisfied are you with your life as a whole? Give a rating from 0 to 10 (0 = *not at all satisfied*, 10 = *very satisfied*)". Finally, Question 5 is a single-item measure on self-assessed health asking: "How is your health in general?" (with the following response scale 1 = *very good* to 5 = *very bad*).

2.2.3 Anxiety and Depression

The Italian validated version of the well-established Hospital Anxiety and Depression Scale (HADS; Zigmond and Snaith 1983) followed the SHS in the survey. The HADS was originally devised to detect states of anxiety and depression. It is a 14-item scale, seven for each of the two states. Costantini et al. (1999) provided Italian normative data for psychiatric patients and conclude that a total score greater than 10 can be used as a screening for psychiatric disorders. Furthermore, Abiodun (1994) confirmed the validity of the HADS for use in a community sample.

2.2.4 Economic Status

The estimation of the relative poverty has been a longstanding topic of interest for national and international statistic services which defined a poverty line (International Standard of Poverty Line) based on the consumption expenditure level per number of resident individuals in the household (<http://www.istat.it/en/archive/relative+and+absolute+poverty>).

In keeping with this definition, we asked participants for reporting their expenditure level and number of residents. Then, participants were classified as relative poor or relative reach if they were below or above the poverty line, respectively.

2.3 Data Analyses

Consistent with the literature reporting a unidimensional factor structure for the SHS (Extremera et al. 2009; Lyubomirsky and Lepper 1999; Moghnie and Kazarian 2012; Swami 2008; Swami et al. 2009; Vera-Villarroel et al. 2011), we tested a Confirmatory Factor Analysis model which assumed a single latent variable and four empirical indicators. In keeping with psychometric theory, the error terms in the model were left uncorrelated. Structural equations were used to estimate parameters and to test hypotheses on the goodness of fit of the hypothesized factor model by use of the program EQS 6.2 (Bentler 2005). The maximum likelihood (ML) robust method was used to estimate the models, as the observed data significantly violated the assumptions of multivariate normality (Mardia's normalized coefficient = 28.30). Historically, the model's fit was evaluated by the ML Chi square statistic (or alternatively by the Satorra–Bentler scaled Chi square if the robust method was applied). However, because virtually any factor model could be rejected if the sample size is large enough, many authors recommended more “practical” indices of fit (e.g., Bentler 1990; Fabrigar et al. 1999; McDonald and Ho 2002; Schweizer 2010).

The Comparative Fit Index (CFI) and the Non-normed fit index (NNFI) are relative fit indexes which compare the hypothesized model's Chi square with that resulting from the independence model (i.e., the model assuming that all relationships among measured variables are 0). CFI or NNFI values greater or equal to .90 indicate an acceptable fit with values greater than .95 being particularly recommended (Hu and Bentler 1999). Differently, the RMSEA is an absolute fit index which measures the difference between the reproduced covariance matrix and the population covariance matrix, so that sampling variability is controlled for. The RMSEA is indeed a ‘badness of fit’ index, with values very close to 0 indicating almost perfect fit and with greater RMSEA indicating worse fit. For the RMSEA, values less than .05 reflect a small approximation error, values between .05 and .08 reflect an acceptable error of approximation while values greater than .10 constitute poor fit of the model (Browne and Cudek 1993). The 90 % confidence interval (CI) around the RMSEA point estimate is also commonly reported to indicate the possibility of close or exact fit. Recent developments (Kenny et al. 2012) recommend caution in the interpretation of RMSEA for small samples and/or models with low degrees of freedom, thereby calling for a more flexible interpretation of model's fit under these specific circumstances.

3 Results

3.1 Descriptive Statistics

The subjective happiness level reported by the whole sample was moderately high ($M = 4.77$). In order to gain further insight on the level of happiness in Italy, we compared the average score resulting from this study to the average scores from published SHS studies carried out on community samples (Lyubomirsky and Lepper 1999; Pais-Ribeiro 2012; Spagnoli et al. 2012; Swami 2008; Swami et al. 2009; Vera-Villarroel et al. 2011).

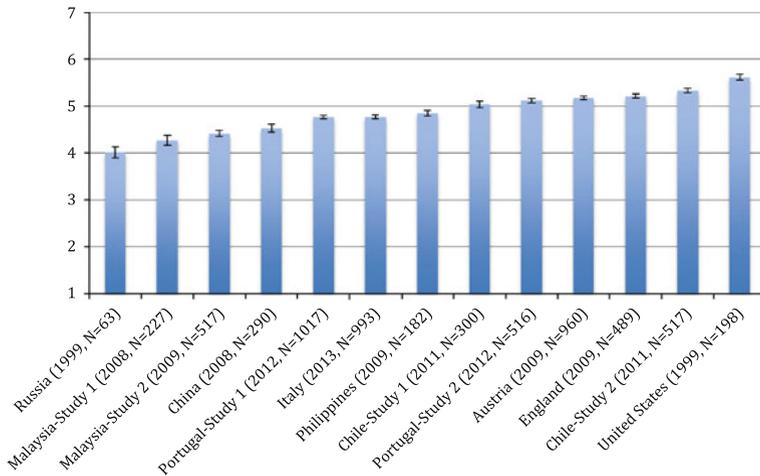


Fig. 1 SHS means and standard errors

As one can see from Fig. 1, the level of subjective happiness in Italy was an intermediate one, with the highest and lowest scores resulting from Lyubomirsky and Lepper (1999).

Furthermore, Table 1 reports means and standard deviations for SHS broken down by gender, age, geographic area, marital status, education, occupational, and economic status. The analysis of variance showed no gender and geographic differences in SHS ratings. As we compared different age groups, the data revealed a decreasing trend of subjective happiness from young age to middle age and then a slightly increasing trend from middle age to older ages (see Table 1). Participants with an upper level of education (i.e., University) scored significantly higher than respondents with a lower level (i.e., Middle School). As expected, respondents who were in search of employment scored significantly lower than participants in all other occupational status, such as employed, housewives, students, retired, and temporary workers. Moreover, unmarried respondents scored higher than separated/divorced participants, although the difference was only marginally significant ($p = .07$). Last, respondents who were below the poverty line scored significantly lower than those who were above this threshold ($p = .01$).

3.2 Confirmatory Factor Analysis

Although the SHS factor model was statistically significant ($SB\chi^2 = 14.76$; $df = 2$; $p < .001$), both relative and absolute fit indexes supported acceptable fit between the model and the data (NNFI = .96; CFI = .99; RMSEA = .08; 95 % C.I. [.04–.12]). All items loaded the latent factor significantly and the standardized factor loadings were .87, .89, .63 and .47 for item 1–4, respectively. The reliability coefficient omega for the whole scale was .79.

As it concerns cross cultural validities, we aimed at testing the invariance of the SHS factorial structure as it is a common standard for validity studies of self-report well-being scales (Sirigatti et al. 2013). Next we examined the equality of model's parameters across different gender and age groups. For this purpose, a first multi-group analyses was based on two groups comprised of 480 males and 513 females, respectively. Then, a second multi-group analysis was based on two age groups: 425 participants aged 18–44 years, 568

participants aged 45–85 years. According to Byrne (2006), the initial step in multi-group analysis requires only that the same number of factors and factor-loadings be the same across groups (i.e., configural invariance). The analysis carried out by gender groups supported the configural invariance hypothesis ($SB\chi^2 = 16.30$; $df = 4$; $CFI = .99$; $NNFI = .96$; $RMSEA = .08$; 95 % C.I. [.04–.12]) and its fit statistics served as a baseline onto which comparing more stringent types of invariance, typically factor loadings and measurement error for single factor models. The model with equality constraints imposed to factor loadings fit the data quite well ($SB\chi^2 = 18.02$; $df = 8$; $CFI = .99$; $NNFI = .98$; $RMSEA = .05$; 95 % C.I. [.02–.08]) and there was no statistically significant scaled Chi square difference between the restricted model and the configural invariance model ($\Delta SB\chi^2 = 1.63$; $df = 4$; $p = .80$). Likewise, the model with equality constraints imposed to both factor loadings and error variances resulted in a very good fit ($SB\chi^2 = 19.28$; $df = 12$; $CFI = .99$; $NNFI = .99$; $RMSEA = .03$; 95 % C.I. [.00–.06]) as well as in a nonsignificant scaled Chi square differences relative to the factor loadings invariance model ($\Delta SB\chi^2 = 2.88$; $df = 4$; $p = .58$). These analyses supported the total invariance of the SHS measurement model for male and female respondents.

Finally, we concluded our investigation of the SHS factorial structure by examining the invariance by age. Although the configural invariance model yielded again a somewhat unacceptable fit for the RMSEA ($SB\chi^2 = 24.81$; $df = 4$; $CFI = .98$; $NNFI = .94$; $RMSEA = .07$; 95 % C.I. [.07–.14]), the model with factor loadings constrained to be equal for younger and older participants resulted in an overall acceptable fit ($SB\chi^2 = 33.36$; $df = 8$; $CFI = .98$; $NNFI = .97$; $RMSEA = .07$; 95 % C.I. [.04–.10]) and the more constrained model also fitted data as much as the baseline model did ($\Delta SB\chi^2 = 3.58$; $df = 4$; $p = .46$). Last, we tested the factor-loading and measurement error invariance model ($SB\chi^2 = 59.33$; $df = 12$; $CFI = .96$; $NNFI = .95$; $RMSEA = .09$; 95 % C.I. [.07–.11]). Different from invariance analyses by gender, we obtained a significantly worse fit than the factor-loading invariance one ($\Delta SB\chi^2 = 28.97$; $df = 4$; $p < .001$). A specification search of model parameters indicated that a source of misfit could be the equality constraint imposed to the error variance of Item 1. As we released this latter constraint, the model yielded an acceptable fit ($SB\chi^2 = 35.92$; $df = 11$; $CFI = .98$; $NNFI = .97$; $RMSEA = .07$; 95 % C.I. [.05–.10]) and it was not statistically different from the factor-loading invariance ($\Delta SB\chi^2 = 7.15$; $df = 3$; $p = .07$). These analysis supported the partial invariance of the SHS measurement model for younger and older respondents.

3.3 Concurrent Validity

Since the Satisfaction Questionnaire used in the present study included items with a four point response scale, we examined the relations of SHS with each satisfaction item by computing Spearman rank order correlations. The same analysis was carried out for self-rated health item. On the other hand, the relationship between SHS and anxiety and depression scores were assessed by standard Pearson correlation. The correlations with four out of seven satisfaction items, the life evaluation item and the self-assessed item were moderate, ranging from .35 (family and friends relationships) to .59 (life evaluation) (see Table 2). As expected, the correlations with one's degree of psychological distress were moderate to high, ranging from $-.59$ (anxiety) to $-.65$ (total score).

Table 2 Relationship between the SHS and the satisfaction and health items and HADS

	Satisfaction with					Health problems			HADS					
	Free time	Health	Family relationships	Friends relationships	Economic situation	Environmental situation	Job	Life	Self-rated health	Chronic diseases	Limitations	Anxiety	Depression	Psychological distress
SHS	.23**	.38**	.35**	.35**	.29**	.21**	.41**	.59**	.43**	-.19**	-.15**	-.59**	-.61**	-.65**

** $p < .01$

3.4 SHS Normative Data

Descriptive statistics and score distribution for the Italian normative sample, also broken by gender and age groups used to test invariance in CFA, are reported in Table 3. The full range of values was present for each demographic variable. A slight higher mean value for each SHS item (except for Item 1) and for the SHS total score has been found for females, while a greater difference has been registered between younger (18–44 years old) and older participants (45–85 years old), having the latter a lower mean value for each SHS item and for the total SHS score than the former. Males and older participants reported a lower percentage of higher scores (% ceiling) in each SHS item than, respectively, females and younger respondents. Moreover, males and older participants reported a higher percentage of lower scores (% floor) in each SHS item than, respectively, females and younger respondents, except for Item 2 (i.e., females reported a higher percentage of lower scores than males). Two out of four factor loadings values (i.e., Item 1 and 2) were great (.87 and .89 respectively), while the remaining were moderate (i.e., Item 3 = .63; Item 4 = .47). Cronbach Alpha's coefficients are good for males and older participants (.80 and .82 respectively), and acceptable for the whole sample ($\alpha = .79$). The same value of .79 has been found for Omega coefficient (McDonald 1999).

4 Discussion

The SHS is not only a very brief measure of happiness, but also one of the most widely used psychological measures to assess subjective happiness in individuals. Many translations and validation studies have been carried out in different countries and languages during the past decade to allow for the use of the SHS across the globe (Extremera et al. 2009; Moghnie and Kazarian 2012; Pais-Ribeiro 2012; Salama-Younes 2010; Shimai et al. 2004; Spagnoli et al. 2012; Swami 2008; Swami et al. 2009; Vera-Villarroel et al. 2011). Thus, the main goal of this article was to expand upon these studies by providing a reliability and validity study of the SHS Italian translation. Furthermore, we also aimed to provide normative data for the Italian population based on data collected from a large community sample.

Using an Italian version of the SHS, the present study largely confirmed the unidimensionality of the scale in line with previous studies (i.e., Lyubomirsky and Lepper 1999; Spagnoli et al. 2012; Swami 2008). Furthermore, we investigated the invariance of the scale by carrying out multi-group analyses considering gender and age as factors. Preliminary CFA revealed that the unidimensional model fit the data well. Subsequently, different multi-group CFAs were carried out separately for gender and age groups. The analysis conducted for hierarchically nested models revealed the total invariance of the SHS measurement model for male and female participants, thus indicating that there is no difference in the Italian population between males and females SHS factorial structure. It is worth noting here that the decreasing RMSEA trend with increasing degrees of freedom, while the Chi square value had a monotonic increasing trend, is consistent with Kenny et al. (2012), who argue that factor models with a limited number of degrees of freedom, such as the baseline or the single-group ones, are penalized in terms of RMSEA performance.

After that, the examination of the SHS invariance by age groups yielded different results from the previous multi-group analysis, which revealed the partial invariance of the SHS measurement model for younger and older participants. In sum, our findings indicate that

Table 3 SHS normative data

	Gender group M(F)					Age group 18–44 (45–85)					Whole sample				
	I1	I2	I3	I4	Total	I1	I2	I3	I4	Total	I1	I2	I3	I4	Total
	Mean	5.00 (4.99)	5.00 (5.04)	4.28 (4.31)	4.69 (4.87)	4.74 (4.80)	5.25 (4.82)	5.15 (4.93)	4.55 (4.12)	4.92 (4.69)	4.97 (4.64)	5.00	5.02	4.30	4.78
SD	1.37 (1.34)	1.37 (1.40)	1.71 (1.74)	1.71 (1.72)	1.23 (1.21)	1.23 (1.41)	1.33 (1.41)	1.64 (1.77)	1.68 (1.74)	1.19 (1.22)	1.36	1.38	1.72	1.72	1.22
Range	1–7	1–7	1–7	1–7	1–7	1–7	1–7	1–7	1–7	1–7	1–7	1–7	1–7	1–7	1–7
CV	.27 (.27)	.27 (.28)	.40 (.40)	.36 (.35)	.26 (.25)	.23 (.29)	.26 (.29)	.36 (.43)	.34 (.37)	.24 (.26)	.27	.27	.4	.36	.25
Skewness	-.82 (-.56)	-.67 (-.73)	-.39 (-.30)	-.28 (-.46)	-.56 (-.48)	-.75 (-.61)	-.71 (-.68)	-.45 (-.25)	-.45 (-.32)	-.48 (-.55)	-.69	-.70	-.34	-.37	-.52
Kurtosis	.61 (.17)	.47 (.45)	-.64 (-.71)	-.83 (-.72)	.39 (.27)	.70 (.17)	.43 (.43)	-.51 (-.77)	-.72 (-.82)	.14 (.42)	.38	.45	-.68	-.79	-.32
% Floor	2.9 (1.8)	2.5 (2.7)	10.0 (9.2)	4.0 (3.7)	.8 (1.2)	1.2 (3.1)	1.7 (3.3)	5.6 (12.3)	2.7 (4.6)	.5 (1.4)	2.3	2.6	9.6	3.8	1.0
% Ceiling	10.8 (12.5)	13.3 (14.0)	9.0 (11.3)	19.6 (23.0)	2.7 (2.5)	14.2 (9.9)	14.7 (13.0)	11.2 (9.4)	23.0 (20.2)	3.7 (1.9)	11.7	13.7	10.2	21.3	2.6
FL	.85 (.88)	.89 (.89)	.63 (.63)	.51 (.43)	.84 (.90)	.84 (.90)	.89 (.90)	.62 (.64)	.43 (.52)	.87	.89	.63	.47		
EV	.28 (.22)	.20 (.20)	.59 (.59)	.74 (.81)	.29 (.19)	.29 (.19)	.20 (.18)	.62 (.59)	.81 (.74)	.25	.20	.59	.77		
Alpha					.80 (.78)					.77 (.82)					.79
Omega					.80 (.79)					.77 (.81)					.79
SEM					.55 (.57)					.57 (.51)					.56

SD standard deviations, CV coefficients of variation, FL factor loadings, EV error variances, SEM standard error measurement

our translation of the SHS has a sound factorial structure and that the SHS scale is suitable for use with Italian adults.

Descriptive analyses carried out to compare specific groups based on socio-demographic variables showed no gender and geographic differences. This result is consistent with most previous studies (e.g., Lyubomirsky and Lepper 1999; Spagnoli et al. 2012; Vera-Villarroel et al. 2011). In contrast, people aged 55–59 years old scored significantly lower than younger respondents. Although this finding has not yet been reported in the SHS literature (e.g., Lyubomirsky and Lepper 1999; Spagnoli et al. 2012), a possible interpretation for the relative unhappiness of Italian adults in this age group could be explained by difficulties that middle age individuals may encounter in a situation characterized by few spending possibilities. In this regard, most part of respondents aged 54–59 were not only relatively unhappy but also living in poverty, a variable with some documented effect on happiness ratings (Lucas and Schimmack 2009). Consistently, people who were in search of employment also scored significantly lower than respondents in all other economic status categories, thereby reinforcing the socioeconomic difficulty in accounting for relative unhappiness.

The correlation of the SHS with the satisfaction and health items represents a first step in the Italian concurrent validation of the instrument. Spearman rank order correlations between the SHS and the job, life and health satisfaction items were moderate, ranging from .41 to .59. Moreover, high negative correlations have been found between the SHS and the psychological distress. This result is consistent with previous studies which reported concurrent validity coefficients of the SHS with life satisfaction and psychological distress (i.e., Lyubomirsky and Lepper 1999; Vera-Villarroel et al. 2011).

Normative data are a necessary step to enabling both within- and between-country comparisons. Although a slightly higher mean value for each SHS item (except for Item 1) and for the SHS total score has been found in females than in males, the difference was not statistically significant. Younger respondents (aged 18–44 years) scored significantly higher than older respondents in each SHS item and in the total SHS score. Items factor loadings varied from great to moderate. The low factor loading value of Item 4 could be explained with the particular Item description which contains different negative semantic forms.

Although the results of the present study indicated that the SHS Italian version has satisfactory psychometric properties, it is worth noting some limitations to the conclusions reported in this article. First, the sample was based on convenience and was not randomly drawn from a target population, so the data are possibly biased by interviewers, who recruited potential participants from public places, waiting places or from places open to the public. Future studies based on probabilistic sampling procedures for the Italian population could reinforce the findings reported in this paper. Second, only self-report measures were used to assess happiness, so the explained variance could have been somewhat inflated by a common method effects. Third, the present study aimed at assessing subjective happiness in adults. Future studies could be extended to younger age groups (e.g., children, adolescents) which are a targeted group for happiness intervention studies. Fourth, a deeper examination of the SHS concurrent validity is needed by using well validated measures in different domains such as affect (i.e., PANAS) or personality (i.e., Big Five Inventory). Despite these limitations, the results of the present study provided evidence that the SHS Italian version has an adequate reliability, a good factorial structure and could be used to assess subjective happiness in a community Italian adult population.

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Appendix: Subjective Happiness Scale (Lyubomirsky and Lepper 1999)

Per ciascuna delle seguenti affermazioni e/o domande, indichi con una crocetta il numero, su una scala da 1 a 7, che sente più adatto a descriverla.

1. In generale, mi considero:

1	2	3	4	5	6	7
una persona poco felice						una persona molto felice

2. Rispetto alla maggior parte dei miei coetanei, mi considero:

1	2	3	4	5	6	7
meno felice						più felice

3. Alcune persone sono generalmente molto felici. Si godono la vita indipendentemente da ciò che succede e prendono il meglio da ogni cosa. Quanto questa frase la descrive?

1	2	3	4	5	6	7
per niente						moltissimo

4. Alcune persone **non sono** generalmente molto felici. Sebbene non siano depresse, non sembrano mai felici come potrebbero essere. Quanto questa frase la descrive?

1	2	3	4	5	6	7
per niente						moltissimo

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