

## Selecting Appropriate Happiness Measures and Malleability: A Review

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### Abstract

Happiness is everyone's ultimate goal for having a meaningful and better life. To some, it means not something that easy to achieve but need a persistence effort to improve one's life. However, very little empirical paper can be claim to be the most appropriate happiness measures. This study specifically attempts to 1) perform systematic review of identifying the concept of happiness in broader perspectives, 2) investigating the adequate information regarding the most frequently used happiness measures based on past studies and 3) make some conclusion based on findings. Computer search using systematic review procedures was grounded based on literature search namely a few search engines: Google Scholar, EBSCOHOST, open access academic journals by using predefined keywords in databases. The findings revealed a total of 15 potential instruments are used for measuring happiness and subjective wellbeing. These instruments consist of two perspectives which comprised of multi item and single item scale. This review found that lack of evidence should not be interpreted as implying lack of practice used. In conclusion, this study is also adequately as powered studies targeted as to proof the appropriate happiness measures using composite or single item scale for measuring happiness.

**Keywords:** Happiness, Measures of Happiness, Subjective Well-being, Psychology, Systematic Review

### Introduction

Numerous research suggests happiness brought tremendous advantage in life that value performance and achievement (Frey & Stutzer 2005; Argyle 1997). It is basically related with wide range of benefits and the ultimate of human goals that everyone strive for to bring a meaningful and satisfactory life. The concept of happiness continued to grow into a major research ground that has attracted international attention. This field has grown rapidly in the last decades and currently thousands of studies has been conducted on topics addressing a wide range of happiness such life satisfaction and emotional stability (Diener, Scollon & Lucas, 2009). Pursuit of happiness is an important determinant of human behavior (Frey & Stutzer,

2005). Empirical research shows that people who gain happiness are better in academic, health, social relation and shows good job performance (Quinn & Duckworth 2007; Diener, Scollon & Lucas 2009; Diener 2000). Happiness known as a subjective construct has been defined in a modest form of positive emotional well-being and is used interchangeably to describe subjective well-being (Diener & Oishi, 2005; Jalloh 2014; Seligman 2002).

The evaluation of happiness can be both interpreted in cognitive and emotional perspectives. Accordingly, the component of happiness itself is mixed up between subjective well-being and happiness (Lyubomirsky & Lepper 1999; Seligman 2002). In some way, it explains about individual happiness. However, inconsistencies regarding the happiness and subjective wellbeing terms present another issue on what is actually the main between both construct and how each construct being measured. Happiness should have its own factors which is rich with psychological benefit such as strong self-esteem, self-compassion, self-awareness and gratitude (Watkins, Woodward, Stone, & Kolts 2003). Though many existing measures has been tested, in some way there is still continuous issue regarding the exact constructs or factors that really represent happiness. As far as happiness research is concerned, researcher have paid attention to find out the most prominent factors that contribute to individual happiness. However, less is known about the best instrument to measure happiness.

As referred to the concept, the terms happiness and subjective well-being are basically used interchangeably since both are synonymy (Joshi, 2010; Henricksen & Stephens, 2013). Accordingly, the interpretation of happiness might be vague between the components of happiness and subjective well-being. To some, both terms are similar that can be measured using self-report questionnaires to assess global or individual happiness. Issue that is often easily overlook in measuring happiness is the exact component under the concept of happiness (Seligman, Parks, & Steen 2004). Based on McGregor and Little (1998) happiness can be operationalized in terms of self-realization or self-actualization. It is promising to also embrace cognitive-evaluative elements, a sense of personal and environmental control, emotional perspectives and positive relations with others. It has been suggested that subjective wellbeing or happiness, involves a number of distinct components, such as satisfaction with life as a whole or with significant life domains (e.g., satisfaction with societal or work life), positive affect and negative affect experience (Diener, 2000).

So as to understand about happiness, many instruments has been used to examine and determine the exact indicator of happiness and the contributing factors of the aforementioned. Evidence from previous empirical research proof that various instrument is widely used over the world to measure happiness using various samples such as Portugal (Pereira, et al., 2015), China (Chen, 2010), and Korea (Yu, Choi & Kim, 2013), Malaysia (Abdullah, Li & Yee, 2011) and Thailand (Munsawaengsub & Charupoonphol, 2009). Up to now, the happiness measures is remained considerable and always keep updated (Pereira et al., 2015). Most of the happiness study mostly discussed and focused on understanding happiness better such as benefits of happiness: Theoretical and empirical consideration (Bekhet et al. 2008; Datu & Mateo 2012): contributory factors to happiness (Mukherjee & Basu, 2008) and psychological factors of happiness (Natvig, Albertson, & Qvarnstrom, 2003). Less is known about the issues on formation criteria of happiness measures and how it was interpreted (Bergsma & Ardel, 2012). Furthermore, the solid definition and measures of happiness still remain insufficient. Although researchers have made extensive progress to understand the nature of happiness, until recently it appears not to cover the happiness

holistically. Yet, the research on happiness is still ongoing. This denote comprehensive exploration on inclusive and exclusive issues regarding happiness.

In recent times, a growing number of happiness research shows the awareness to understand the nature of happiness in depth. Most of previous research uses both qualitative and quantitative approaches to measure happiness (Delle Fave et al. 2011). Self-report measure is one of the examples that is widely used (Sandvik, Diener & Seidlitz 1993) comprising both multiple item scales and single item scales. Although many research has been conducted using various approaches, there is no absolute research report to confirm the best instrument in explaining happiness. Considering this issue of happiness, therefore empirical research is needed to resolve it. Hence, this article attempts to identify the appropriate measures of happiness that can be used based on probing systematically the existing instrument used in previous research. By using the right key component in determining the appropriate happiness measures, the finding contributes to strengthen the existing concept of happiness and its measures comprehensively for the future need.

This paper reviews the extant literatures relevant to happiness and subjective well-being. The focus is on investigating the existing happiness measures, the concept of happiness and attempts to discover the most prevalent instrument used by previous researchers that strongly show it's really cover wide aspect of happiness and explained happiness in depth. The selected articles are sorted and analyzed by searching the existing instrument used by past researchers. Results from the listed instruments are then discussed. Finally, the implications, limitations and directions for future research are offered. The purpose of this study was to examine an instrument representing enabling proper measures to investigate perspectives of happiness; these two perspectives namely single item scale and multi item scale were assessed through its psychometric property and applicability that determined which of the two has greater explanatory factor in relation to happiness measures.

## **Methods**

In conducting this review, we have used a systematic procedures to identify the relevant articles on happiness measures used on variety of samples. The step conducting systematic review are based on established guidelines from previous scholars (Khan, Kunz, Kleijnen, & Antes 2003; Nasser-Moghaddam & Malekzadeh 2006) covers 5 elements which is i) formation of the question, ii) searching the literatures, iii) critical appraisal, iv) data extraction and v) data synthesis. All the process employs selecting only those studies that meet specific criteria which explains about happiness measures, construct using multiple item or single item scale, population applied, concept of happiness, scoring interpretations, reliability and validity of the instruments retrieved from previously published studies.

The process of systematic review are portray as the figures below.

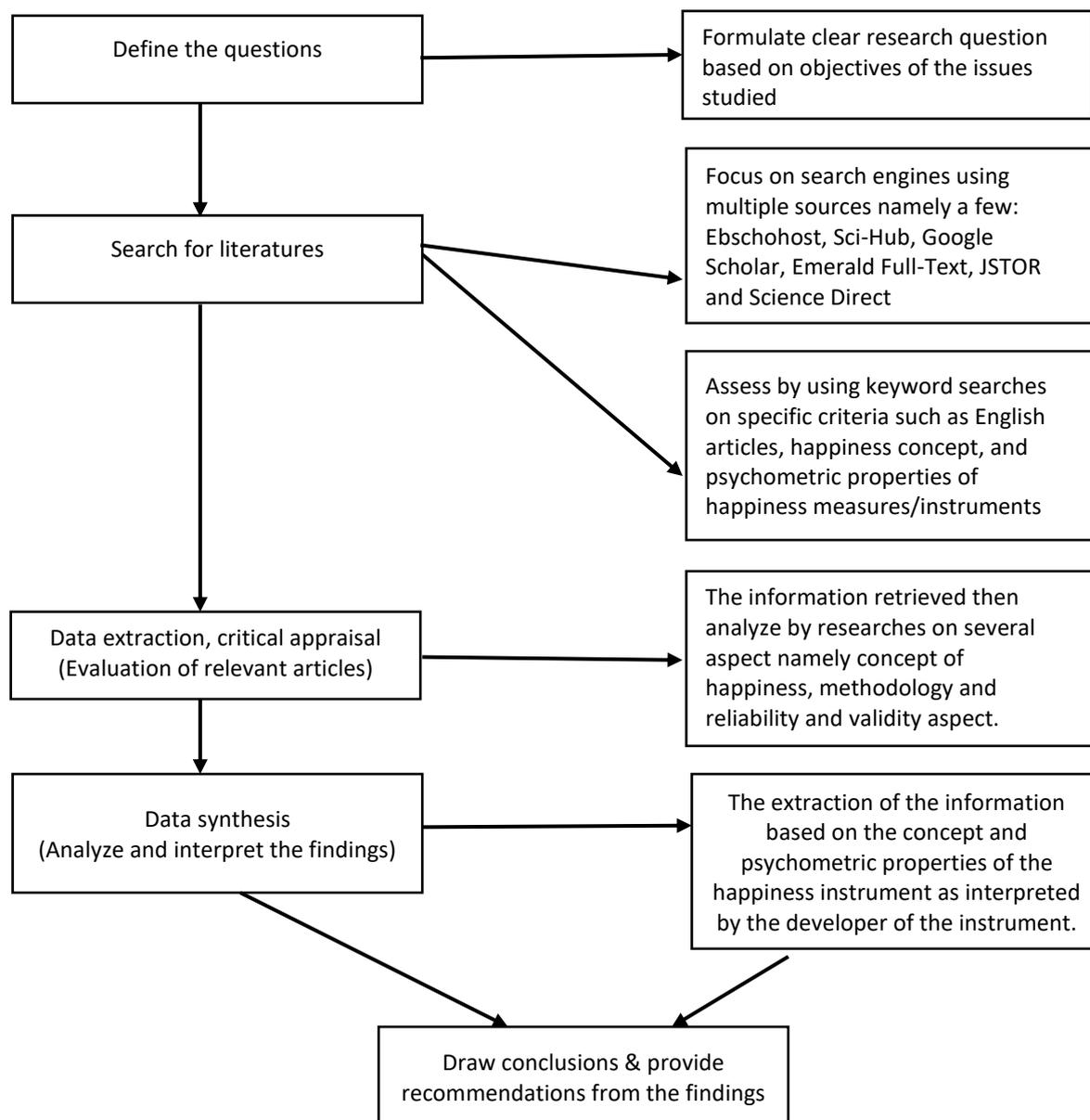


Figure 1 Process of Systematic Review Approach

### Selection process for identification of literatures

The protocol of the review is to allow alternative ways of defining and identifying appropriate measures or study design that grow into deceptive. Besides, aims to ensure that the systematic review will cover comprehensively the objectives of the articles written. The applicability of the instruments evidence based considering scholar’s reviews from previously conducted studies.

The process of gaining the information regarding the happiness measures is a crucial part. So as to point out the importance, the literatures search protocol are highlighted. Overview from the wide variety of open access databases shows that the studies of happiness became popular as struggling effort to understand indicators and contributing factors of human well-being.

The procedure of finding the potential articles began with articles search based on full text articles to set the criteria to be included in this article. The relevant and suitable

articles are only selected to draw a conclusion. We carried out a systematic review based on literature search using various search engine such as EBSCOhost, JSTOR, Google scholar and Emerald full text using the keywords covered; “happiness measures”, “subjective well-being measures”, “measures of happiness” AND “Psychology” as well as “subjective well-being” AND “happiness”. Only publication in English Language were search. Accordingly, the result from online searching found that not all the articles provide full text and some of them are just provide abstract or pay per view. Somehow, the full text articles related to happiness and subjective measures are only selected. Fifteen articles found and has been taken out for further analysis. Critical appraisal made to ensure the paper retrieved meet the criteria aforementioned.

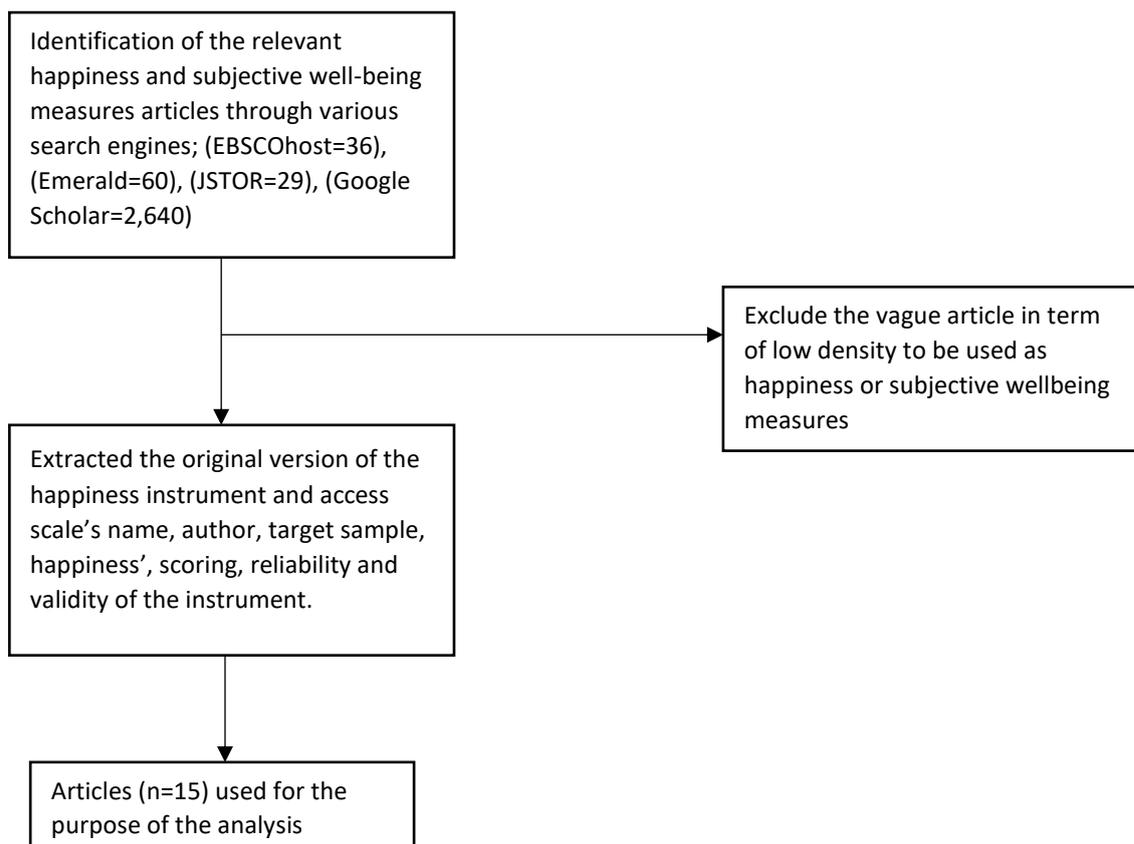


Figure 2 Selection process for studies included in analysis.

## Results & Discussion

The measuring devices for happiness contain at least two kinds of approaches using multi item as well as single item scales to be used with qualitative or quantitative method. The type of responses using 5 point and 7 point likert scales and also dichotomous response (yes/no). Various search engine such as Google Scholar, EBSCOhost, Emerald Full-Text and JSTOR to trace happiness studies. Table 1 shows that 15 instruments has been identified from previous studies using online databases based on keyword aforementioned. The systematic hand search found that most of the research conducted were based on self-report survey to measure happiness and subjective well-being in which both term are used interchangeably.

The instruments used to measure happiness are also use to measure well-being. This study has made extensive searches to provide a clearer picture on instruments to used measure happiness, specifically as an outcome measure. These happiness measure has been

used extensively to measure broad range of happiness perspectives in term of concepts, population and they have also been verified through validity and reliability tests, test-retest and using explanatory and confirmatory factor analysis. In certain studies, happiness are measures as uni-dimension construct. Meanwhile, subjective well-being in some studies are measures as a composite scale combining life satisfaction and affective factors. In contrary, most of the instruments using multi factors which comprises of life satisfaction and affect factors for both term studies.

There are many multiple item scales to measure happiness which include The Oxford Happiness Inventory (OHI; Argyle, Martin, & Lu, 1995; Hills & Argyle, 1998), the Depression-Happiness Scale (Lewis, McCollam, & Joseph, 2001; McGreal & Joseph, 1993), and the Memorial University of Newfoundland Scale of Happiness (Kozma & Stones, 1980). Meanwhile, the instrument to measure happiness using single item scales is limited to only two instrument which are self-rating of happiness and Subjective Well Being Scales (Khalek 2009; Lyubomirsky & Lepper 1999). Although both types of instrument are valid and shows higher reliability and validity score, the multi item has its own advantages in which it can picture happiness using many perspectives as apposed single item scale which only cover happiness as a general view. A single item scale also need to be supported with large number of supporting factor to proof its reliability to measure happiness as what Khalek (2009) did in his study.

The results according to past findings show that the measures of happiness can be general or specific in which the general happiness mostly use single item scale and asked individual happiness in one statement. Meanwhile, most of the instruments or measures used to explain happiness in details are use more constructs such as affect factors, life satisfaction, hedonism and eudemonic factor, meaningful life and behavior perspectives. Both approaches and tools use measuring happiness have their own pros and cons, with the most obvious limitation is single item scale, as it is impossible to either examine its internal consistency or to apply factorial analysis processes as it is not sufficient or meet the criteria to conduct factor analysis. It is more suitable to view perception in general for large scale or community project survey and cross-cultural comparison (Khalek 2006). The detail overview of the happiness measures reviewed cover the scales used, target population, concept of happiness, scoring interpretation, reliability and validity as provided in Table 1.

Table 1  
Overview of Happiness Measures

The Scales/ instrument	Author	Population used	Concept of happiness	Scoring Inter- pretation	Reliability and Validity
1.The Bradburn Affect Balance Scale (ABS)	Bradburn & Caplovitz (1965)	The Young, middle aged. Not standardized on older subjects	Happiness is the difference between positive and negative affective states and measure	The scale is scored by subtracting the negative positive items plus a constant 5 to avoid	1. Test-retest reliability= .29. 2. Construct validity via correlations with the Roscow morale Scale and with the LSI-A (.61 and .66, respective-ly).

				psychological well-being	negative values.	3. Cronbach's alpha is low = .59-.65.
2. Memorial University of Newfoundland Scale of Happiness (MUNS)	The Kosma Stones (1980)	&	Younger and older adults	Measures both short and long-term aspects of well-being.	The scale is scored by subtracting the negative items from positive items.	1. Cronbach's alpha = .80-.86. 2. Test-retest = .70.
3. The Oxford Happiness Inventory (used worldwide) (OHQ)	Argyle et al. (1989)		Under graduate students	Three components: (1) frequency and intensity of positive affect; (2) average level of satisfaction; (3) absence of negative feelings	The higher the scores, the greater the happiness.	1. Cronbach's alpha = .90-.92. 2. Test-retest reliability = .78. 3. construct validity via correlation with measures of self-esteem, life regard index, and depression happiness scale (.66, .64, & .79, respectively)
4. Chinese Happiness Questionnaire (CHQ)	Lu & Shih (1997)		Under graduate (mean age: 20 to 21 years)	Measures subjective experiences pertaining to life domains	The higher the scores, the greater the happiness.	Chronbach's alpha = .94.
5. The Oxford Happiness Questionnaire (OHQ)	Hills Argyle (2002)	&	Under graduate students (age ranged from 13 to 68 years)	Three components: (1) frequency and intensity of positive affect; (2) average level of satisfaction; (3) absence of negative feelings	The higher the scores, the greater the happiness.	1. Cronbach's alpha = .91. 2. Demonstrates construct validity via correlation with measures of self-esteem, life regard index and depression-happiness scale (.81, .77, & .90 respectively)

6.	The Depression–Happiness Scale (DHS)	McGreal & Joseph (1993)	Undergraduate (17–35 years)	This scale represents depression and happiness as opposite ends of a single continuum	The higher the scores, the greater the feelings of happiness and the lower the feelings of depression	1. Cronbach’s alpha = .93. 2. Demonstrates construct validity via -ve correlation with scores on Beck’s inventory ( $r = -.73$ ).
7.	The Mood Survey (MS)	Underwood & Froming (1980)	Undergraduate students	Measures 3 dimensions of mood: the average level, intensity, and frequency of mood experiences	The higher the scores, the greater the happiness.	Test–retest show high reliability ranged from .63 to .85.
8.	The Subjective Happiness Scale (SHS)	Lyubomirsky & Lepper (1999)	14–94 years (Young adults) &	Global or subjective assessment of whether one is happy or unhappy	Higher scores reflecting greater happiness	1. Chronbach’s alpha from .79 to .94. 2. Test–retest reliability ranged from .55 to .90.
9.	The Happiness Subscale of the short version of The Adolescent General Well-being (AGWB)	Columbo, (1986,1984)	12–14 years (early adolescence)	Not reported	Higher scores reflect higher perceived happiness.	Chronbach’s alpha coefficient ranged from .87 to .90.
10.	Marital Happiness Scale (MHS)	Azrin et al., (1973)	Married couple/ couples aged (23–56 years)	Measures of reported marital happiness in each of 10 areas of interaction	The higher the scores the higher the happiness.	not reported (Bekhet et al. 2008)
11.	Pemberton Happiness Index (PHI)	Hervás & Vázquez (2013)	adults (16-60 years)	Measure of integrative well-being that includes remembered and experienced well-being	PHI index is the sum of positive experiences and the sum of the absence of negative experiences	Cronbach alpha values observed (0.89 and 0.91) were very similar to those reported in the original study, which ranged from 0.82 to

				(each item counted as "1"). The total sum is then divided by 12	0.93 (Paiva et al. 2016)
12. Happiness-Enhancing Activities and Positive Practices (HAPPI)	Henricksen, & Stephens (2013)	Adults (55-73 years)	Measure the importance and engagement of various happiness-enhancing activities	Higher scores represent the higher importance and engagement ratings for the corresponding activity.	Not reported
13. Covilhã's Happiness Questionnaire (CHQ)	Pereira, Monteiro, Esgalhado, Afonso & Loureiro (2015)	Portuguese people (Young adult)	Happiness is strongly associated with experience and hedonic gratification of needs and therefore is independent of comparison standards. Designed to be more sensitive to the self-assessment of happiness.	Sum of mean score of the 41 Items (Total scores), and the scores of each dimension.	Exploratory factor analysis revealed a well-fitting 5-dimensional factor structures (KMO = 0.914), with strong factor loadings and excellent internal reliability (0.92).
14. Steen Happiness Index (SHI)	Kaczmarek, Stanko-Kaczmarek, & Dombrowski (2010)	Student (22-24 years)	Presence of pleasure, the lack of negative affect and the overall satisfaction with life.	5 likert scale (1 extremely negative to 5 positive). The total score is the sum of each individual item.	Internal score=.91

15.The self-rating of happiness (SRH)	Abdel-Khalek (2006)	Under graduates (18-26)	Not mentioned	11-point scale (0=minimum-10=maximum ) based response from global estimation of student feeling.	Good convergent validity Cronbach's $\alpha = 0.86$ .
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### Description of Instrument Used

The explanation of each 15 instrument used are as followed:-

The Bradburn Affect Balance (ABS) (Bradburn & Caplovitz, 1965) is used to differentiate between positive and negative affect states and measures psychological wellbeing. It consists of 10 items in which five items represent negative affect and another five items for positive affect. Computer search using the keyword "The Bradburn Affect Balance" AND "happiness" found only eight results from Google scholar search and six from EBSCOhost. This scale is mostly used to measure depression, self-esteem and perceived well-being. According to Bradburn and Caplovitz (1965), affect-balance is a better indicator of subjective well-being than happiness. Bekhet et al. (2008) suggested that ABS has low correlation with measures of well-being and it probably does not measure happiness.

The Memorial University of Newfoundland Scale of Happiness (Kosma & Stones, 1980) is commonly used to measure wellness and happiness in old ages specifically for elderly, parents and older people. Based on literature search, 10 articles were found using "The Memorial University of Newfoundland Scale of Happiness" as a key word. This instrument consists of 24 items using a dichotomy scale which uses "yes" or "no". It measures both short and long term aspects of well-being. Internal consistencies using Cronbach's alpha show high reliability ( $\alpha = .80$  to  $.86$ ). This instrument is less used among the younger population.

The Oxford Happiness Inventory proposed by Argyle et al. (1989) is one of the most frequent instruments used in research on happiness. Computer search from the EBSCOhost online database revealed that 64 articles appear using the instrument name as the key word. It is also widely used in many countries and published in a variety of versions including Italy, Iran, Israel and Egypt. It consists of 29 items using four incremental levels numbered from 0 to 3. Cronbach's alpha ranges from  $\alpha = .90$  to  $.92$  which is considered high. It also demonstrates high construct validity when correlated with measures of self-esteem, life regard index and depression happiness scales. The components of the instrument include the frequency and intensity of positive affect, average level of satisfaction, absence of negative feelings and feeling of self-fulfillment. Higher scores reflect greater happiness. Although this scale is widely used and literally many researchers agree that this scale is suitable to measure happiness, Kashdan (2004) raises the issue to explicate salient conceptual issues regarding the item of the OHQ whether it's really assessing happiness or not.

Chinese Happiness Inventory (Lu & Shih, 1996) has been developed based on the perspective that happiness and subjective well-being are similar. The questionnaire was derived from a qualitative study carried out in Taiwan. This instrument is used to measure subjective experiences pertaining to all varieties of life domains consisting of 48 items. The

questionnaire are group of statement. Each of the question contained four statements and each statement represent different level of subjective experience of happiness based on feeling past one year. The higher the scores, the greater the individuals' happiness with Cronbach's alpha  $\alpha=0.94$ . Hand searches via Google Scholar using the keyword "Chinese Happiness Inventory" resulted 28,800 in articles that used this instrument. In some way, it shows this instrument is quite popular among previous researchers.

Mean While, The Oxford Happiness Inventory (OHI; Argyle, Martin & Crossland, 1989) is a measure of well-being constructed from 29 multiple choice items. A more compact instrument, the Oxford Happiness Questionnaire (OHQ) has been developed which contains a comparable number of similarly worded, single items that respondents may answer on a uniform six-point likert scale. It has been used to assess either global trait happiness or the specific dimensions such as life satisfaction, personal efficacy, vigor, positive affect, sociability, social interest and cheerfulness (Argyle, Martin, & Lu, 1995; Hills & Argyle, 2002; Karademas & Kalantzi-Azizi, 2005; Meleddu et al., 2012). Google Scholar search also found 165,000 articles that use this scale. Based on Hills and Argyle (2002), OHQ is identified a single higher order factor, which suggests that the construct of well-being it measures is uni-dimensional. It was devised as a broad measure of personal happiness, mainly for in-house use in the Department of Experimental Psychology of the University of Oxford in the late 1980s.

The Depression-Happiness Scales DHS: (McGreal & Joseph, 1993) consists of 25-item statistically bipolar self-report scale designed to measure depression and happiness. The items are divided into positive and negative thought. It represents depression and happiness as opposite ends of a single continuum. It has been administered among undergraduate student age range 17 to 35 years. Twelve items ask about positive thoughts, feelings, and bodily experiences. Thirteen items asked about negative thoughts, feelings, and bodily experiences. Respondents are asked to think about how they have felt in the past 7 days and to rate the frequency of each item on a 4-point scale: never (0), rarely (1), sometimes (2), and often (3). Items concerning negative thoughts, feelings, and bodily experiences are reverse-scored so that respondents can score between 0 and 75, with higher scores indicating greater frequency of positive thoughts and feelings and lower frequency of negative thoughts and feelings (Joseph & Lewis, 1998). Besides, the higher the scores, the greater the feelings of happiness and the lower the feelings of depression. Test of internal consistencies using Cronbach's alpha  $\alpha=0.93$ . It demonstrates construct validity via negative correlation with scores on Beck's inventory (BDI)  $r=-0.73$ .

The Mood Survey (Underwood & Froming, 1980) is used to measures mood situation among undergraduate student. The questionnaire consist of 34 item using six point likert scale ranging from 1=strongly disagree to 6=strongly agree. This instrument measure three dimensions of mood intended to describe general level of mood, frequency of mood changes and intensity of reaction to mood altering event. Level of mode comprised average level, intensity and frequency of mood experiences. Mood represent happiness with the higher the score represent greater happiness. The Mood Survey has been shown to have factorial unity, reliability over time, based on test-retest show high reliability ranged from .63 to .85. It has stronger relationship to personality measures that are commonly used to measure state of mood level.

The Subjective Happiness Scale SHS: (Lyubomirsky & Lepper, 1999) is a 4-item scale of global subjective happiness. It used to evaluate individual level of happiness in general in frequency response. It is appropriate for young and adult samples age range between 14 to

94 years old. Higher scores reflect greater happiness. Cronbach's alpha range from  $\alpha=0.79$  to  $.94$ . Results of test-retest reliability ranged from  $\alpha=0.55$  to  $.90$ . Empirical evidence for this instrument suggests that typically happy and unhappy individuals seem to differ in the ways in which they react to life events and daily situations (Lyubomirsky & Tucker 1998). SHS has been translated to other version such as Japanese and the result shows SHS has good internal consistency, test-retest reliability, convergent validity, and discriminant validity (Shimai et al. 2004). Results of most research using this scale suggests that happy individuals are more likely to view the world fairly positive and in a happiness-promoting way. This scale also has well to excellent reliability and confirm it is used to measure subjective well-being (Lyubomirsky & Lepper 1999).

The Happiness Subscale of the short version of the Adolescent General Well-being AGWB: (Columbo, 1986, 1984) measures happiness in early adolescence between ages of the 12 to 14 years. The concept of happiness is not mention in the explanation of the instrument. The score is calculate based on average of the score item. Higher scores reflect higher perceived happiness. The values of reliability and validity of the instrument is reflected Cronbach's alphas that ranged from 0.87 to 0.90. There is not much information based on finding using Google scholar search since it is not really popular among previous researchers.

Marital Happiness Scale MHS: (Azrin et al., 1973) is used primarily for marriage couples aged between 23–56 years. It Measures marital happiness in 10 areas specifically designed to provide information regarding marital interaction that were considered as inherent in most marriages. The list of areas covered are: (1) Household Responsibilities; (2) Rearing of Children; (3) Social Activities; (4) Money; (5) Communication; (6) Sex; (7) Academic or Occupational Progress; (8) Personal Independence; and (9) Spouse Independence. A tenth category, General Happiness covers the overall marital happiness. The clients need to list out or give the examples of specific types of events to be considered within each of the major problem areas. Each of the 10 categories is scored on a point continuum of self-reported happiness. The instructions at the top of the form emphasized the need for the testee to consider each problem area. This scale uses experimental procedures that need four counselling sessions with their population. Higher scores reflect higher marital happiness. This scale is not suitable for general as it focuses on marital satisfaction and happiness (Azrin et al., 1973).

Pemberton Happiness Index PHI: (Hervás & Vásquez, 2013) has been recently developed as an integrative measure of well-being in the general population that includes components of hedonic, eudaimonic, social, and experienced well-being. This instrument consists of 11 items related to remembered well-being, each with 11-point Likert scale. Ten items related to experienced wellbeing that comprised of positive and negative events that occurred the day before using dichotomous response options (yes/no). The PHI has been validated in several languages such Portuguese among Brazilian population. Reliability results, which include internal consistency (Cronbach's  $\alpha=0.89$  and  $0.91$ ) and test-retest (intra-class correlation coefficient= $0.81$ ) are both considered adequate. The cut-off value of higher than 7 in remembered Pemberton Happiness Index was identified (AUC= $0.780$ , sensitivity= $69.2\%$ , specificity= $78.2\%$ ) as the best one to identify a happy individual. This scale is suitable for adolescent and adult samples age between 16 to 60 years. PHI index is the sum of positive experiences and the sum of the absence of negative experiences (each item counted as "1"). The total sum is then divided by 12. The other study by Paiva et al. (2016) also shows PHI reliability and validity is considered high.

Happiness Intentional Activities and Positive Practices HAPPI: (Henricksen & Stephens 2013) measures the importance and engagement of various happiness-enhancing activities among older subjects age between 55 to 73 years. It comprises of 22-items that assesses the importance and engagement of various happiness-enhancing activities. Items are designed to assess activities in six categories: 'Other-focused', 'Personal recreation and interests', 'Thoughts and attitudes', 'Achievement', 'Spiritual' and 'Self-concordant work'. Items are rated on how important each is considered for enhancing happiness and on the frequency of engagement. Importance was measured using a five-point scale anchored at 'not important at all' and 'extremely important. Importance and engagement scores for each item were multiplied to form composite scores (0–20), with higher scores representing higher importance and engagement ratings for the corresponding activity. The HAPPI is a relatively brief, easily administered inventory that shows promise as a useful tool for the measurement of happiness-enhancing activities and it can be used based on cohorts to determine which domains demonstrate the greatest contribution to happiness and other well-being outcomes, which have implications for social policy, education and intervention to enhance well-being (Henricksen & Stephens 2013).

Covilhã's Happiness Questionnaire CHQ: (Pereira, Monteiro, Esgalhado, Afonso, Loureiro, 2015) is based on original edition that consist 41 items to measure a person's happiness used for younger and adult Portuguese. Exploratory factor analysis revealed a well-fitting 5-dimensional factor structure (KMO = 0.914), with strong factor loadings and excellent internal reliability (Cronbach's  $\alpha = 0.921$ ). This instrument assessed the following dimensions covers positive emotions, socially gratifying interactions, self-caring, participation in meaningful activities, and socio-economic structure engagement. It has a good face validity and psychometric property.

Steen Happiness Inventory SHI: (Kaczmarek, Stanko-Kaczmarek & Dombrowski, 2010) is administered among students to measures the presence of pleasure, lack of negative affect and overall satisfaction with life. The Steen Happiness Index (Seligman, Steen, Park, & Peterson, 2005) contains 20 items and requires participants to read a series of statements and pick the one that best describes them during the past week. Response choices range from a negative ("Most of the time I am bored") to an extreme positive ("Most of the time I am fascinated by what I am doing"). Each answer is consigned a value ranging from 1 to 5, with 5 representing the happiest response. The items cover the areas of pleasure ("My life is filled with pleasure"), engagement ("Time passes so quickly during all of my activities that I do not even notice it") and meaning ("I have a very clear idea about my purpose in life"). Total score is the sum of each individual item. The internal scale consistency test using Cronbach's alpha  $\alpha = .91$ .

The self-rating of happiness is another single item scales introduced by Abdel-Khalek (2006) using survey method. The question asked about the general view regarding happiness as whole. Using likert scale of 11 point scale rated 0 to 10 to measure global estimation and general feeling. The numbers are written horizontally on one line with equal interval. This scale show good convergent validity and Cronbach's alpha  $\alpha=0.86$ . The score of 0 is minimum and 10 is maximum which best to describe individual feelings. This scale is best used in community surveys as well as in cross-cultural comparisons.

### **Conclusions & Recommendations**

The systematic analysis based on previous research on happiness measures attempt to answer the appropriate instrument for measuring happiness. Previous study shows happiness

measures are using both qualitative and quantitative approaches. Two famous type of measuring happiness either with multi item or single item using likert scales. Overall, this review have found 15 instruments that are frequently used in previous studies that demonstrate significant positive relationship between happiness and subjective well-being. In contrary, there are three studies which reveals happiness as a trait and measure happiness as a sub factor of subjective well-being. Thirteen scale use multi item scales while 2 approach use single item scale. Based on systematic review, literature on happiness studies demonstrate that there are significant constructs of happiness and subjective well-being interchangeably.

Similarly, result of the 15 instrument used to measure happiness and subjective well-being show good reliability and validity. In conclusion, happiness can be measured in many ways whether using multi item or single items. These instruments are valid to use as happiness measures. The most important consideration is all the existing instrument should be reviewed before a new research in future be conducted. It is to ensure the adaptation and adaption of the instrument is really measure whether happiness or well-being beforehand. It sometimes differ between culture and demographic. As recommendation, the happiness measures has to be improvise in terms of suitability of the item be used and should be interpreted or viewed within the limitations inherent in its nature. For the future research, it is recommended that the instruments should be very comprehensive that cover wide range of happiness and yet it can be very inclusive that can explain happiness holistically.

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