

Assessment of Household Happiness in Slum Environment Using the Expected Value Rules

Bagus Sumargo^{1*}, Zarina Akbar² and Agus Wibowo³

¹*Department of Statistics, Faculty of Mathematics and Natural Science, Universitas Negeri Jakarta, 13220 Jakarta, Indonesia*

²*Department of Psychology, Faculty of Psychology Education, Universitas Negeri Jakarta, 13220 Jakarta, Indonesia*

³*Department of Economics Education, Faculty of Economics, Universitas Negeri Jakarta, 13220 Jakarta, Indonesia*

ABSTRACT

A slum environment is an area that commonly has characteristics of unhealthy house conditions and tends to create a crowded condition among residents. This study is intended to measure the happiness level of the household. This study also suggests an instrument that can be used to understand the happiness level. The dimensions and indicators of happiness factors were derived from Statistics Indonesia, including the dimensions of life satisfaction, feelings, and the meanings of life. The research was conducted in several slum areas in Indonesia, such as in Kali Baru Village, Cilincing District, North Jakarta Municipality, DKI Jakarta Province. The sample comprised 100 households selected using multistage random sampling. The assessment of household happiness applied the expected value rules based on the composite index. The major finding of this study is that 100% of unhappy household were unemployed.

Keywords: Assessment of happiness individually, slum environment, the expected value rules, unemployed

ARTICLE INFO

Article history:

Received: 08 October 2019

Accepted: 07 February 2020

Published: 25 September 2020

E-mail addresses:

bagussumargo@unj.ac.id (Bagus Sumargo)

zarina_akbar@unj.ac.id (Zarina Akbar)

agus-wibowo@unj.ac.id (Agus Wibowo)

* Corresponding author

INTRODUCTION

The urban areas have a greater risk of experiencing high levels of inequality and require more resources to achieve a minimum level of socially acceptable welfare. Therefore, the location of residence affects the way individual views of happiness status (Sumargo & Novalia, 2018). Happiness is felt subjectively for

everyone, and it depends on the degree to which they positively assess the quality of their entire lives. According to Veenhoven (Kalmijn & Veenhoven, 2005), there are two components to measure happiness, namely the useful and cognitive components. The useful components are related to the extent to which individuals feel positive about themselves (the level of hedonic influence), while the cognitive components are acquaintance with the level of an individual's satisfaction. Happiness is an indicator to measure individual well-being, including aspects of good and positive emotions and life that is meaningful and fulfilled (Crabtree, 2012). In other words, happiness is an experience of positive emotions combined with feelings deeper about the meaning and purpose of life.

Various meanings of happiness are commonly understood by society. Some people defined happiness as feeling happy and satisfied with something that is considered noble (Kahneman et al., 1999). Others mentioned happiness as an effort to fulfill the potential and goals of one's life (Forgeard et al., 2011; Franklin, 2010; Martin, 2012; Seligman, 2002, 2005, 2011). Happiness can also be interpreted as an evaluation of life that someone feels towards certain aspects of life by considering the influences including emotional experiences (Organisation for Economic Co-operation and Development [OECD], 2013), and *eudaimonia*, which refers to someone as well as psychological functions that can work well (Clark & Senik, 2011; Deci & Ryan, 2008; Huppert, 2009; New

Economics Foundation, 2011). In contrast, the portrayal of unhappy people who intend to seek happiness in their interpretations needs special attention (Ahmad, 2015). Due to the fact that happiness encompasses complex life phenomena and from a variety of correlated determinants, the assessment of happiness index requires a framework that includes 19 indicators that cover three dimensions of life, namely dimensions of life satisfaction, dimensions of feeling, and dimensions of the meaning of life. The dimensions of life satisfaction are divided into sub-dimensions of personal and social life satisfaction (BPS-Statistics Indonesia, 2017).

Based on the previous explanation, the BPS-Statistics Indonesia (2017) determines the measurement of happiness with three dimensions, including the dimensions of life satisfaction consisting of personal subdimensions and social subdimensions, the dimensions of feeling and the dimensions of the meaning of life (*eudaimonia*). The results of the 2017 Happiness index showed that the dimensions of life satisfaction were about 71.07, where scores of each personal subdimension and social subdimensions were approximately 65.98 and 76.16, respectively. Meanwhile, feelings and meanings of life scores were about 68.59 and 72.23. Furthermore, the happiness index measurement for each dimension of life satisfaction, feelings, and meaning of life in respect was about 34.8%, 31.18%, and 34.02%. In other words, the average contribution in each dimension of happiness is relatively the same, which is around 30%.

The value of Indonesian happiness is 70.69, and the happiness index in DKI Jakarta Province is greater than the Indonesian happiness index (71.33). It implies that the happiness of the population in DKI Jakarta province is in the moderate category. The unhappy society is commonly experienced by people who live in slum areas. However, to present, there is no standard of measurement to examine the happiness index in the slum areas. Therefore, it cannot be compared with the national happiness index. These findings could be engaged as the basis to develop a measurement model for happiness index, particularly in the slums circumstance such as in North Jakarta. Based on this explanation, this study applied a multidimensional measurement of happiness, namely micro perspectives, by detecting individuals or households, whether happy or unhappy. Multidimensional happiness means that many factors cause a person or household to be happy. Additional indicators can influence happiness, the more complex the essence of happiness itself is, between individuals or households.

The life satisfaction dimension has personal sub-dimension and social sub-dimension. The indicators of personal sub-dimension are the drop out of school (Carr, 2004; Scoppa & Ponzio, 2008); being unemployed (Carr, 2004, Clark & Oswald, 2013; Di Tella et al., 2001; Gerlach & Stephan, 1996); having no fixed income per month (Carr, 2004; Righi, 2014); having chronic diseases (Carr, 2004; Carrieri, 2011); and home-ownership (Carr, 2004). The indicators of social sub-dimension are

a harmonious family (Carr, 2004), having leisure time for family (Biswas-Diener & Diener, 2009); having no conflict with a neighbour (Carlisle & Hanlon, 2007; Carr, 2004; Cassel, 2009; Diener & Ryan, 2009; Grossi et al., 1995); and not being victims of crime (Main, 2014).

The indicators of feeling dimensions (Forgeard et al., 2011; Franklin, 2010; Martin, 2012; Seligman, 2002, 2005, 2011) are feeling happy (Chekola, 1974; Crabtree, 2012), feeling worry or anxious (Carr, 2004), and feeling depressed (Carr, 2004; Goldings, 1954). In addition, the indicators of the meaning of life (Clark & Senik, 2011; Deci & Ryan, 2008; Huppert, 2009; New Economics Foundation, 2011) are family not being independent (Main, 2014); stress due to the environment (Carr, 2004), poor relationships with others (Carr, 2004), having a purpose in life (Ryff & Essex, 1992), and self-acceptance or being in control of emotion (Carr, 2004; Crabtree, 2012; Fordyce, 1971).

LITERATURE REVIEW

The Understanding of Happiness

In general, prosperity is not only meant to promote material welfare but also to increase the happiness of all Indonesian citizens. Happiness is the degree to which a person positively evaluates the quality of his whole life. Another term for happiness is subjected to well-being, excellent and positive emotional feelings, and life satisfaction (Crabtree, 2012). Happiness as a positive emotional experience combined with a more profound feeling about the

meaning and purpose of life. In happiness, there are two positive moods about the present and their views about the future. A study by Seligman (2005) is a pioneer in positive psychology, and it has confirmed that people who pursue mere pleasure can only benefit from temporary happiness and do not answer the meaning of happiness intrinsically (Huang, 2008).

The word subjective well-being used for happiness is due to the term being used as a natural umbrella to explain the satisfaction and meaning of life as a whole in life. Happiness can be identified by a number of the main dimensions of aspects of happiness. There are eight main dimensions of happiness, as will be explained. First, perspective, which is a personal view on life that gives rise to optimistic and positive feelings. Second, equilibrium is the stability felt by someone about feeling secure, feeling trusted, not afraid to lose their livelihood, feeling like they have ownership, and being able to express themselves. Further autonomy, which is the ability of someone to direct themselves about how, when, and where they can express themselves, develop, and be trusted in the scope of their activities and lives. Fourth, mastery, including the ability to develop skills that match their activities or work; Fifth, objectives, namely feelings of harmony between general goals and their personal values, feeling involved, finding meaning in their activities as the primary motivators of their activities. Next, progress, which is to achieve progress from day to day that leads to achieving their life goals. Seventh, culture is the existence of

mutually supportive cultures in interpersonal relationships so that a sense of belonging grows. Lastly, appreciation, namely the implementation of a climate of positive openness accompanied by recognition and mutual respect (Huang, 2008).

Happiness Factors

Factors that influence a person's well-being, viewed from the perspective of psychology, include demographic factors, social support factors, evaluation of life experience, locus of control, and religiosity factors. Some demographic factors that influence the well-being of psychology such as age, gender, socio-economic status, and culture. Ryff and Keyes (1995) found that the dimensions of mastery of the environment and autonomy dimensions increased with age, especially from young adults to middle adulthood. The dimensions of positive relationships with others also increase with age. Conversely, the dimensions of life goals and personal growth show a decrease with age; this decline mainly occurs in middle to late adulthood.

Gender according to Ryff and Keyes (1995), when compared to men, women have higher scores on the dimensions of positive relationships with others and dimensions of personal growth while socio-economic status also affects the condition of the psychological well-being of an individual. Data obtained from the Wisconsin Longitudinal Study show social gradations in well-being conditions in middle-aged adults. The data show that higher education and employment status increase psychological

well-being, especially in the dimensions of self-acceptance and life goal dimensions (Ryff, 1989). Those who occupy high social classes have more positive feelings about themselves and their pasts and have more sense of direction in life compared to those in lower social classes.

The research on psychological well-being carried out in America and South Korea shows that respondents in South Korea have higher scores on the dimensions of positive relationships with others and low scores on the dimensions of self-acceptance. This can be caused by a cultural orientation that is more collective and interdependent. In contrast, American respondents had high scores in the dimensions of personal growth (for female respondents) and dimensions of life goals (for male respondents) and had low scores in the dimensions of autonomy, both men and women. Individuals who receive social support have a higher level of psychological well-being (Ryff, 2014).

Social support is defined as a sense of comfort, attention, appreciation, or help that is perceived by an individual to obtain from another person or group. This support can come from various sources, including partners, family, friends, colleagues, doctors, and social organizations. Studies by Cobb (1976), Cohen and McKay (1984), and Schaefer et al., (1981), mentioned that there were four types of social support, namely emotional support, award support, instrumental support, and informational support. Emotional support involves empathy, caring, and attention to someone. This support provides a sense of comfort,

security, ownership, and love for individual recipients, especially in times of stress.

Award support comes from expressing positive appreciation, encouragement or approval of thoughts or feelings, as well as favorable comparisons between individuals and others. This support builds self-esteem, competence, and feelings of respect, while instrumental support involves concrete action or giving help directly, and informational support includes giving advice, guidance, advice, or feedback on a person's behavior. Ryff (1989) suggested that specific life experiences could influence the condition of the psychological well-being of an individual.

These experiences cover various fields of life in various periods of life. Individual evaluation of his life experience has a significant influence on psychological well-being (Ryff & Keyes, 1995). This statement is supported by research conducted by Ryff and Essex (1992) regarding the influence of individual interpretations and evaluations on his life experience on mental health. The self-evaluation mechanism proposed by Ryff and Essex (1992) follows several factors, including social comparison, reflected appraisal mechanism, behavioral self-perceptions, and psychological centrality mechanism. In social comparison mechanisms, individuals learn and evaluate themselves by comparing themselves with others. This comparison can lead to positive, negative, or neutral self-evaluations, depending on the standards used for comparison, which in this case are usually people or reference

groups. Meanwhile, the reflected appraisal mechanism follows the symbolic premise of interactionists, which argue that individuals are influenced by the attitudes shown by others towards themselves so that over time, individuals will see themselves according to other people's views of themselves. In other words, the feedback that individuals perceive from the view of others as long as they experience a particular life experience is a self-evaluation mechanism.

Behavioral self-perception is part of the process by which individuals give meaning to their life experiences. Those who perceive a positive change in themselves are expected to be able to view experiences more positively so that they can show good adaptation. In addition, the psychological centrality mechanism is composed of several components that are arranged hierarchically and are self-centered. In other words, there is a more centralized component than other components, where the more centered a component is, the higher the effect on self-concept.

Therefore, to understand the impact of life experiences on the psychological well-being conditions, it should also be understood to what extent the events and their effects on the main components of one's self-concept. If the experience only affects the main components, then the social comparison mechanism, the manifestation of rewards, and self-perceptions of behavior have less influence on psychological well-being. However, if a life experience influences the core components of self-concept, then the social

comparison mechanism, the manifestation awards, and self-perceptions of behavior will significantly affect psychological well-being. To obtain the information about the core of the identity of an individual, it can be asked how important the different components of life, such as health, family, and friends. In this research, the researcher can ask how important the meaning of marriage and family is for an individual.

The Organisation for Economic Co-operation and Development (OECD) measures happiness using the Better Life Index approach, which covers 11 dimensions including housing with indicators of the number of rooms per capita and the percentage of households that have their own defecation facilities; income with an indicator of the average household disposable income and the average value of financial assets owned by the household; work with indicators of the number of the working population and long-term (one year) disturbance rate; community with indicators of the number of friends, neighbors, or other close relatives who are willing to help if the population is in need; education with indicators of educational attainment and students' ability to read; an environment with air pollution level indicators; government with indicators of election participation rates and figures for transparency and openness of government in making regulations; health with life expectancy indicators and reports on general population health; and life satisfaction. The OECD has conducted a separate survey to find out how people evaluate their lives

in general based on their positive and negative experiences; security with the level of attack indicators experienced by the population and the murder rate of every 100,000 inhabitants; time balance with female level indicators that have school-age children working; the percentage of working residents who have long working hours (more than 50 hours a week); and free time and time to pamper oneself.

MATERIALS AND METHODS

The research was conducted in several slum areas in Indonesia, including in Kali Baru Village, Cilincing Subdistrict, North Jakarta Municipality, DKI Jakarta Province. The sample included 100 households and was selected using a random sampling technique. Then, the enumerator had interviewed the eligible respondents with an instrument survey-worksheet for assessment of household happiness.

In this study, the happiness index was measured based on three dimensions, namely the dimensions of life satisfaction, feelings, and meanings of life. The Life Satisfaction dimension includes: (1) sub-dimensions of personal life satisfaction include education and skills variables: (a) main work/business/activities, (b) household income, and (c) health; conditions of housing and house facilities; (2) sub-dimensions of social life satisfaction include variables of family harmony, availability of leisure time, social relations, environmental conditions, and security conditions. The Affect dimension includes: (1) feelings of happiness, (2) feelings of worrying, and (3)

feeling of not depressed. The dimensions of Meaning of Life (*eudaimonia*) include (3) independence, (b) environmental mastery, (4) self-development, (5) positive relationships with others, (6) life goals, and (7) self-acceptance.

The three dimensions of the measurement of happiness in question have their respective weights at 1/3, and each indicator in the dimensions is also weighted equally. Therefore, the researchers got the indicator weight as the dimension of life satisfaction weight consisting of 11 indicators valued at 1/33, the weight of the feeling dimension consisting of three indicators valued at 1/9, and the weight of the meaning of life consisting of six indicators worth 1/18. Everyone who was assessed using a worksheet with indicators. The assessment consists of a dummy 0 or 1. When a person fulfills the happiness assessment according to multidimensional marine indicators, then one point is given, the assessment continues to be carried out on each indicator. After getting an assessment of twenty indicators, it would be calculated based on $E(I)$ a dummy random variable with a probability mass function $w(I)$, the expectation value of $I \{E [I]\}$, which is defined following this formula (Sumargo et al., 2019):

$$E(I_i) = W_1I_1 + W_2I_2 + \dots + W_pI_p \quad (1)$$

Where $I_i = 1$, if someone is hit by indicators I , and $I = 0$, if not.

W_j is the weight of the indicator with a total of $n =$ its weight is worth 1.

The expected value of a random variable indicates its weighted average. The expected value should be regarded as the average value. When I is a discrete or dummy random variable, then the expected value of I is precisely the mean of the corresponding data.

Then the $E(I_i)$ value is compared with a weight of $1/3$ because of three dimensions: life satisfaction, feelings, and meaning of life. If it is bigger than $1/3$, then the household is categorized as *happy*. Based on the dimensions of happiness in the Statistics Indonesia version, this study will detect poor households that have happiness and those that are not happy. The development of detection is conducted by giving a score of 0 (*No/None*) or 1 (*Yes/Existing*) for the indicators in each dimension; see Table 1.

RESULTS AND DISCUSSION

The general description of household heads in RW 012, Kali Baru Village, Cilincing District, North Jakarta Municipality consisted of 75.3% males, and 72.2% were over 40 years of age. As many as 67% graduated from junior high school (SMP), and 51.5% were smokers. Then household detection was done, which could be categorized as having multidimensional dimensions.

Multidimensional happiness detection was determined by comparing the multidimensional happiness scores of each household with the existing three dimensions. Specifically, it was known that there were 11 households (11%) multidimensionally, for which the expected

values were 0.3485, 0.4293, 0.3737, 0.3434, 0.4040, 0.8788, 0.4293, 0.3384, 0.3484, 0.4243, and 0.3737, respectively.

Unhappy households indicate that they had problems with the dimensions of life satisfaction, both personal and social, feelings, and quality of life and meaning of life. Based on the findings, it is known that unhappiness in life satisfaction is found where 100% of household heads are unemployed or have chronic disease (90.9% of households), non-permanent income per month (63.6% of households), or less-harmonious families (63.6% of households). Ironically when asked if they felt happy, all of them responded as being happy. However, as many as 27.3% of households were worried, and 18.2% of households felt depressed. The unhappiness of the household in the dimensions of life's meaning occurred with problems of not being independent (90.9% of households) and being environmentally stressed (90.9% of households).

Household unhappiness occurred in households where expenditures were below 1 million rupiah, ART never travels (63.6% of households), ART who worked less than 50 hours a week (54.5% of households), households not helping one another (54.5% of households), awful smelling households (54.7% of households), and dirty homes (72.7% of households).

CONCLUSIONS

Based on the results of the previous analysis and discussion, there are some conclusions. First, approximately 11% of

Table 1
Worksheet for assessment of household happiness

Dimension / Subdimension / Indicator	Sample of Household (Hh)				Weight (Wj)
	Hh. 1	Hh. 2	Hh. 3	... Hh.	
LIFE SATISFACTION					3
<i>Personal Subdimension:</i>					
1. Nobody dropped out of school	1 or 0	1 or 0	...	...	1/33
2. Some have participated in skills training	1 or 0	1 or 0	...	...	1/33
3. No one is unemployed	1 or 0	1 or 0	...	...	1/33
4. There is a fixed income per month	1 or 0	1 or 0	...	...	1/33
5. No one has a chronic disease	1 or 0	1 or 0	...	...	1/33
6. Own home ownership	1 or 0	1 or 0	...	...	1/33
<i>Social Life Satisfaction Subdimension:</i>					
7. Harmonious family	1 or 0	1 or 0	...	...	1/33
8. Lots of free time for family	1 or 0	1 or 0	...	...	1/33
9. No one has ever had a conflict with a neighbor	1 or 0	1 or 0	...	...	1/33
10. Comfortable environment	1 or 0	1 or 0	...	...	1/33
11. Never experienced a crime	1 or 0	1 or 0	...	...	1/33
FEELINGS (Affect)					3
1. Feeling happy	1 or 0	1 or 0	...	...	1/9
2. Feeling of worry or anxiousness	1 or 0	1 or 0	...	...	1/9
3. Not feeling depressed	1 or 0	1 or 0	...	...	1/9
MEANING OF LIFE (Eudaimonia)					3
1. Independent family	1 or 0	1 or 0	...	...	1/18
2. No stress due to the environment	1 or 0	1 or 0	...	...	1/18
3. Developing a sense of self	1 or 0	1 or 0	...	...	1/18
4. There is a positive relationship with other people	1 or 0	1 or 0	...	...	1/18
5. Have a purpose in life	1 or 0	1 or 0	...	...	1/18
6. Can control emotions (there is self-acceptance)	1 or 0	1 or 0	...	...	1/18
$E(I_i)$ = Expected value of I, $i = 1, 2, 3, \dots, p$	C_1	C_2	C_3	...	
Happy (H) categories if $E(I_i) \geq (1/3)$.	<i>H or not</i>	<i>H or not</i>	<i>H or not</i>	...	
Note: There are three dimensions				...	

households were detected to be unhappy in a multidimensional manner. Second, the characteristic of household unhappiness in the social dimension was that the family was less harmonious, not independent, and the

household members had never helped each other. Third, the characteristics unhappiness household were being unemployment (100% of the heads of households), had no fixed income, had an average expenditure

per month under one million rupiah, had never travelled before, and ART who worked less than 50 hours a week. Lastly, the characteristics of unhappy household in the environmental dimension were chronic disease, stress and unpleasant smelling homes which were dirty.

ACKNOWLEDGEMENT

We are grateful to the anonymous referees and editor of the journal for their valuable comments and suggestions to improve the quality of the article.

REFERENCES

- Ahmad, M. R. (2015). Journey to absolute happiness in dinstan's absurd play it is not a suicide. *E-Bangi*, 10(1), 177-185.
- Biswas-diener, R., & Diener, E. (2009). Making the best of a bad situation: Satisfaction in the slums of Calcutta. In E. Diener (Ed.), *Culture and Well-Being* (pp. 261-278). <https://doi.org/10.1007/978-90-481-2352-0>
- BPS-Statistics Indonesia. (2017). *Indeks kebahagiaan 2017* [Happiness index 2017]. Jakarta, Indonesia: BPS.
- Carlisle, S., & Hanlon, P. (2007). Well-being and consumer culture: A different kind of public health problem? *Health Promotion International*, 22(3), 261-268.
- Carr, A. (2004). *Positive psychology (The science of happiness and human strengths)*. New York, USA: Brunner-Routledge. Retrieved October 13, 2019, from https://books.google.co.id/books?id=6Tx3mSzoqEC&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false
- Carrieri, V. (2011). Social comparison and subjective wellbeing: Does the health of others matter? *Bulletin of Economic Research*, 64(1), 31-55.
- Cassel, R. N. (2009). Psychological aspects of happiness. *Peabody Journal of Education*, (February), 37-41. <https://doi.org/10.1080/01619565409536548>
- Chekola, M. G. (1974). *The concept of happiness* (Doctoral dissertation), University of Michigan, USA.
- Clark, A. E., & Oswald, A. J. (2013). Unhappiness and unemployment. *The Economic Journal*, 104(424), 648-659.
- Clark, A. E., & Senik, C. (2011). Is happiness different from flourishing ? Cross-country evidence from the ESS (Id: halshs-00561867). Available from <https://halshs.archives-ouvertes.fr/halshs-00561867>
- Cobb, S. (1976). Presidential Address-1976. Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300-314.
- Cohen, S., & McKay, G. (1984). Social support, stress and the buffering hypothesis. A theoretical analysis. In A. Baum, J. E. Singer, & S. E. Taylor (Eds.), *Handbook of psychology and health* (pp. 253-267). Hillsdale, USA: Erlbaum.
- Crabtree, J. (2012). India's uncertain future. *Public Policy Research*, 19(2), 132-136. <https://doi.org/10.1111/j.1744-540X.2012.00697.x>
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9(1), 1-11. <https://doi.org/10.1007/s10902-006-9018-1>
- Diener, E., & Ryan, K. (2009). Subjective well-being: A general overview. *South African Journal of Psychology*, 39(4), 391-406. doi: 10.1177/008124630903900402

- Di Tella, R., MacCulloch, R. J., & Oswald, A. J. (2001). Preferences over inflation and unemployment: Evidence from surveys of happiness. *American Economic Review*, 91(1), 335-341. doi: 10.1257/aer.91.1.335
- Fordyce, M. W. (1971). *What psychologists know about your personal happiness*. Retrieved September 14, 2019, from https://worlddatabaseofhappiness.eur.nl/hap_bib/freetexts/fordyce_mw_1975.pdf
- Forgeard, M. J. C., Jayawickreme, E., Kern, M. L., & Seligman, M. E. P. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing*, 1(1), 79-106. <https://doi.org/10.5502/ijw.v1i1.15>
- Franklin, S. S. (2010). *The psychology of happiness*. New York, USA: Cambridge University Press.
- Gerlach, K., & Stephan, G. (1996). A paper on unhappiness and unemployment in Germany. *Economics Letters*, 52(3), 325-330. [https://doi.org/10.1016/S0165-1765\(96\)00858-0](https://doi.org/10.1016/S0165-1765(96)00858-0)
- Goldings, H. J. (1954). On the avowal and projection of happiness. *Journal of Personality*, 23(1), 30-47. <https://doi.org/10.1111/j.1467-6494.1954.tb02336.x>
- Grossi, S. G., Genco, R. J., Machtet, E. E., Ho, A. W., Koch, G., Dunford, R., ... Hausmann, E. (1995). Assessment of risk for periodontal disease. II. Risk indicators for alveolar bone loss†. *Journal of Periodontology*, 66(1), 23-29. doi: 10.1902/jop.1995.66.1.23
- Huang, P. H. (2008). Authentic happiness, self-knowledge and legal policy. *Minnesota Journal of Law, Science & Technology*, 9(2), 755-784.
- Huppert, F. A. (2009). Psychological well-being: Evidence regarding its causes and consequences†. *Applied Psychology: Health and Well-Being*, 1, 137-164. <https://doi.org/10.1111/j.1758-0854.2009.01008.x>
- Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: The foundations of hedonic psychology*. New York, USA: Russell Sage Foundation.
- Kalmijn, W. I. M., & Veenhoven, R. (2005). Measuring inequality of happiness in nations: In search for proper statistics. *Journal of Happiness Studies*, 6, 357-396. <https://doi.org/10.1007/s10902-005-8855-7>
- Main, G. (2014). Child poverty and children's subjective well-being. *Child Indicators Research*, 7(3), 451-472. <https://doi.org/10.1007/s12187-014-9237-7>
- Martin, M. W. (2012). *Happiness and the good life*. New York, USA: Oxford University Press.
- New Economics Foundation. (2011). *Measuring our progress the power of wellbeing*. London, England: New Economic Foundation.
- Organisation for Economic Co-operation and Development. (2013). *OECD guidelines on measuring subjective well-being*. Paris, France: OECD Publishing. <https://doi.org/10.1787/9789264191655-en>
- Righi, A. (2014). Happiness and the relational dimension of well-being. *Statistica Applicata – Italian Journal of Applied Statistics*, 24(2), 153-172.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081. <https://psycnet.apa.org/doi/10.1037/0022-3514.57.6.1069>
- Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of Eudaimonia. *Psychotherapy and Psychosomatics*, 83(1), 10-28. <https://doi.org/10.1159/000353263>

- Ryff, C. D., & Essex, M. J. (1992). The interpretation of life experience and well-being: The sample case of relocation. *Psychology and Aging*, 7(4), 507-517. <https://doi.org/10.1037/0882-7974.7.4.507>
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719-727.
- Schaefer, C., Coyne, J. C., & Lazarus, R. S. (1981). The health-related functions of social support. *Journal of Behavioral Medicine*, 4(4), 381-406. <https://doi.org/10.1007/BF00846149>
- Scoppa, V., & Ponzo, M. (2008). An empirical study of happiness in Italy. *The B. E. Journal of Economic Analysis & Policy*, 8(1). <https://doi.org/10.2202/1935-1682.1965>
- Seligman, M. E. P. (2002). *Authentic happiness*. New York, USA: Simon & Schuster. Retrieved September 14, 2019, from https://books.google.co.id/books?id=_JaY2K2dhC0C&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false
- Seligman, M. E. P. (2005). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York, USA: Free Press.
- Seligman, M. E. P. (2011). *Flourish*. New York, USA: Simon & Schuster. Retrieved September 14, 2019, from <https://www.simonandschuster.com/books/Flourish/Martin-E-P-Seligman/9781439190760>
- Sumargo, B., Miduk, N., & Simanjuntak, M. (2019). Deprivasi utama kemiskinan multidimensi antarprovinsi di Indonesia [Main deprivation of multidimensional poverty among provinces in Indonesia]. *Jurnal Ekonomi dan Pembangunan Indonesia*, 19(2), 160-172.
- Sumargo, B., & Novalia, T. (2018). Structural equation modelling for determining subjective well-being factors of the poor children in bad environment. *Procedia Computer Science*, 135, 113-119. <https://doi.org/10.1016/j.procs.2018.08.156>