

## Happiness and its Predictors among Undergraduate Students in Malaysia: A Systematic Review

Claudia Yong, Zaida Nor Zainudin, Mohd Ashraff Mohd Anuar,  
Wan Norhayati Wan Othman

Faculty of Educational Studies, Universiti Putra Malaysia, 43400, UPM, Selangor, Malaysia

Corresponding Authors Email: zaidanor@upm.edu.my

**To Link this Article:** <http://dx.doi.org/10.6007/IJARSS/v12-i8/14507> DOI:10.6007/IJARSS/v12-i8/14507

**Published Date:** 20 August 2022

### Abstract

Happiness of university students gradually decreases throughout their studies and does not return to pre-university levels, which prompts the investigation of mental health and well-being in university students. The primary objectives of this systematic review includes to explore the predictors of happiness among undergraduate students in Malaysian universities, to outline the strategies and recommendations to foster happiness at the same time to explore future directions of happiness research in Malaysia. Using PRISMA guidelines, a systematic search of major databases including PubMed, MEDLINE, CINAHL, SCOPUS, and Google Scholar published in the English language between the year January 2013 to January 2022. A total of 11 articles were retrieved and their results were synthesized. The review found predictors such as religious commitment, Islamic-based gratitude strategy, creativity, sedentary behaviour, physical activity, trait emotional intelligence, extraversion personality, creativity, non-attachment, psychological well-being attributes, and youth engagement in meaningful activities to have positive relationship with happiness. Importantly, mediation effects were also examined in six studies indicating that consideration for effect modifiers should be performed following each predictors of happiness. In short, evidence showed there are specific traits, behaviours, strategies, and other domains of life that consistently predicts level of happiness. However, this review could not provide firm conclusions due to several reasons. Firstly, most of the studies were cross sectional studies with pre-determined predictors. Also, the factions of participants from selected Malaysian universities and the variation of predictors discussed prompts for further exploration in increased inclusivity and volume of participants as well as investigation with different methodologies.

**Keywords:** Happiness, Undergraduate Students, Malaysia Universities

### Introduction

Happiness has been the pinnacle of human's life through time and space. From Democritus the laughing philosopher to Aristotle's Nicomachean Ethics to Bhutan's Gross

National Happiness to World Happiness Report to Martin Seligman's Authentic Happiness theory, the common theme in these various works and wisdom include first and foremost, to ascertain what constitutes happiness and secondly, the ways to attain it.

Insofar as it could be understood, although there could be common predictors that has long been established to have strong and positive relationship with happiness, there is not one theory nor strategy that could explain and acquire happiness exhaustively. Happiness is fluid in the way that it changes form from one context to another. Therefore, predictors of happiness could have similarities and differences of effect across nations.

A famous example of a controversial theory of happiness is Easterlin Paradox (Easterlin, 1974). Notably, while the theory which assert that richer people are happier than poor people were supported by studies such as Stevenson & Wolfers (2008) whom reported positive association between average levels of subjective well-being and GDP per capita across countries. This theory is disproved in European sample (Kaiser & Vendrik, 2019), South Korean sample (Slag et al., 2019), Chinese sample (Li & Shi, 2019) and Arab sample (Arampatzi et al., 2018). Opfinger (2016) reported that regional differences might be catalysed by materialistic attitudes or the degree of collectivism of a society.

Another inconsistencies in the study of happiness exist within the notion of religiousness as a positive predictor of happiness. In some studies such as Hutchinson, Habib, & Hutchinson (2018), religion is important in determining the happiness of life. However, although the notion of religiousness predicts happiness consistently or rather straightforwardly in other countries, it is challenged in highly secularized Dutch context (Ten Kate et al., 2017).

On the other hand, a rather consistent observation in the study of happiness is the U-shape pattern of happiness. Cheng et al (2017), contends that people tend be happy as children but happiness declines steadily after, until it increases again around the age of 50. It is also safe to assume that the U-shape pattern of could be mapped with Mey & Yin (2015), study which reported that happiness of university students consistently decreases throughout their studies, and never return to pre-university level.

The fortunate observation in the study of happiness is although happiness is predetermined in certain ways, there are strategies that could be taken to elevate appiness. Evidence from a twin study of more than 2,000 pair of twins from the Minnesota Twin Registry found that approximately 50% of happiness level could be drawn from genetics, which leaves 40% attributable to intentional activities and 10% attributable to external events (Sheldon & Lyubomirsky, 2021). That is to say, although happiness could be positively biased to certain circumstances, it is yet within reach to a great degree specially above the shoulders of giants.

On the whole, to explore the predictors of happiness among undergraduate students is essential into exploring the nuances of happiness within this specific context, consequently allowing greater leeway in developing exhaustive theoretical assumptions and intervention strategies.

### **Objectives**

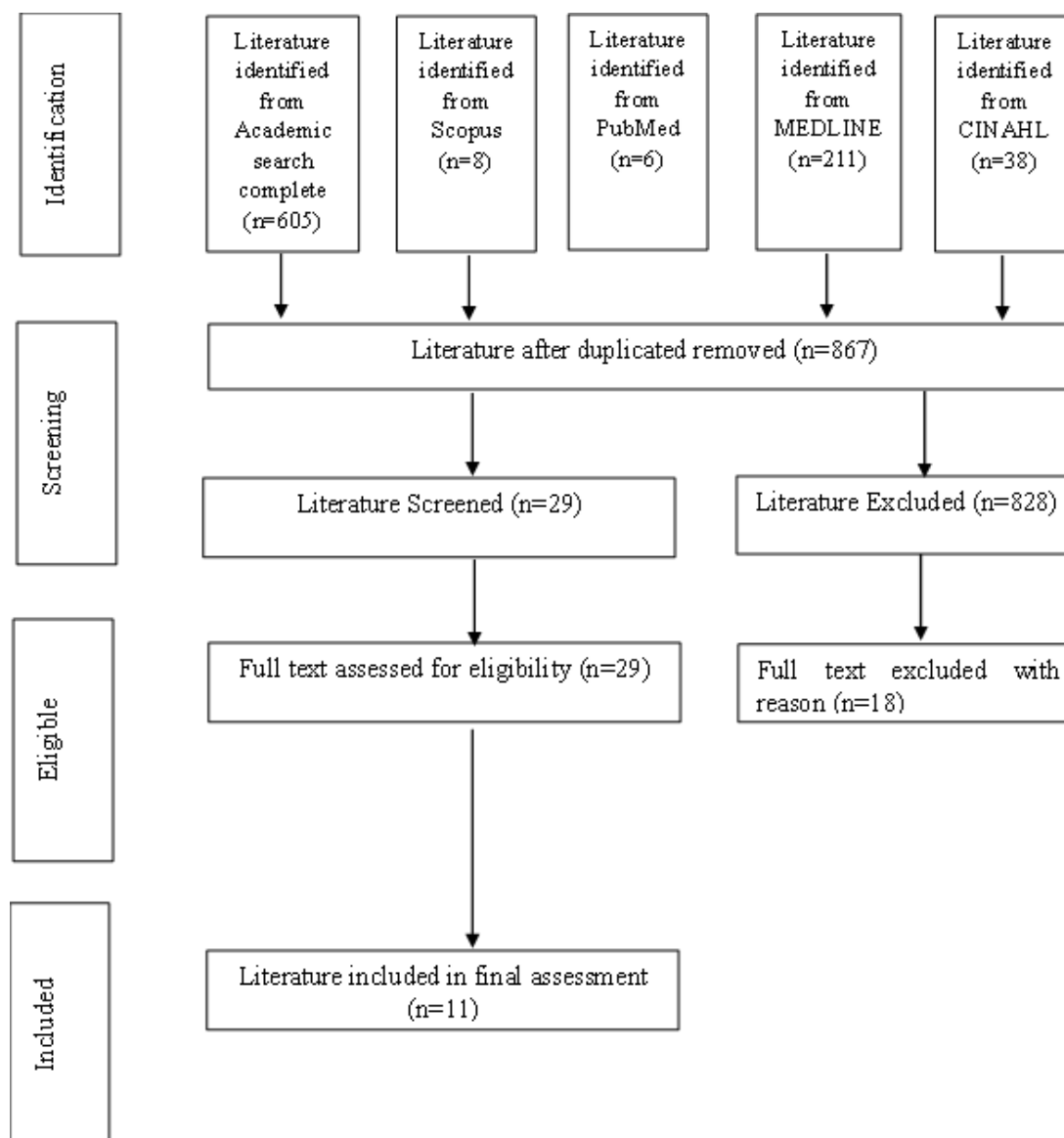
The chief purpose of this review was to outline the predictors of happiness among undergraduate students in Malaysian universities. The aim of the current review were to:

- Identify the predictors of happiness among undergraduate students in Malaysian universities in existing literature.
- Identify the strategies and recommendations to increasing happiness among undergraduate students in Malaysian universities in existing literature.
- Identify the gaps and limitations in existing literature in assessing happiness among undergraduate students in Malaysian universities.

### **Methodology**

This review was performed to explore the predictors of happiness among undergraduate students in Malaysia using Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) (Moher et al., 2009) guidelines as shown in figure. 1. The research process began with the identification phase; online searches using EBSCO Academic Search Complete, SCOPUS, PubMed, MEDLINE, CINAHL, and Google Scholar. Keywords in English such as “Happiness”, “Undergraduate Happiness”, “Happiness undergraduate Malaysia” were used to search for relevant articles that reported empirical data on cross-sectional studies, meta-analysis and case-control studies. With these keywords, using EBSCO Academic Search Complete, a total of 605 articles were found. This includes 243 articles from MEDLINE, 45 article from CINAHL, 8 articles from SCOPUS, 6 articles from PubMed, and finally, 11,500 articles from Google Scholar.

The screening phase began after duplicate articles were removed, and the scope of the search was narrowed down to several criteria; specifically, only articles which used the term “happiness” and “undergraduate students” from “Malaysian universities” are included. Also, articles must be published within the time frame of 2013 to the present, available in the full text and the context of these past studies must include independent variables that is classified as a form of predictor of happiness and dependent variable must be undergraduate students in Malaysia happiness. A total of 12,396 articles were excluded after the screening process and only 11 studies were assessed in the third phase as according to their eligibility using the PRISMA checklist.



In short, eleven articles which discussed happiness and its predictors of undergraduate students from universities located in Malaysia were included. This review then independently summarized the predictors, strategies and recommendations provided (if any) and finally, suggestions for future actions and research.

*Figure 1.* PRISMA flowchart for a systematic review on happiness and its predictors among undergraduate students in Malaysia

## Findings and Discussions

### General Description

This review specifically included studies which targeted the distinct group of sample which is undergraduate student studying in a Malaysian University. The sum of the undergraduate students whom participated in the eleven studies totalled to the range of 3000 to 3300 students.

In addition, this review has found that although the eleven studies included undergraduate students from Malaysian universities, most studies did not report the exact locality of the universities. Specifically, out of the eleven studies, only four studies explicitly noted the precise universities in which the undergraduate students were studying in, which included International Islamic University Malaysia (IIUM), University Malaya (UM), Universiti Tunku Abdul Rahman, and UITM Shah Alam.

Furthermore, in terms of demographic information, from the eleven studies, eight studies relatively included much of the sex, race and religion in Malaysia, with two studies exclusively recruited only Muslim students and one study recruited majority Chinese students and another study participated by majorly female students.

This review also precisely only included studies which specifically used the term happiness as its dependent variable, to avoid being misconstrued or biased with other terms with closely related connotations such as subjective well-being, psychological well-being, and well-being which has been used interchangeably with the term happiness (Snyder et al., 2018; Reyes-Garcia et al., 2016).

Among the studies, nine studies were cross sectional design, one was experimental design and one study utilised combination of cross sectional design and an experimental design. The sampling techniques vary from one study to another. Of the eleven studies, six studies done using convenient sampling technique; one study used simple random sampling technique, one study used purposive sampling technique; another one also used purposive sampling but further subcategorised by stratified random sampling; one study used two-stage cluster sampling followed by simple random sampling, and another one study used convenient sampling followed by snowball sampling for part one of study and convenient sampling part two of their study.

Finally, different statistical analysis programs was used in the studies; six studies utilised SPSS, three other studies used STATA, AMOS, and SMART-PLS respectively, while two studies did not specify their software of choice. Mediation Analysis, Hierarchical Regression Analysis, Adjusted Linear Regression, Correlational Analysis were the statistical analyses done in the studies included in this reviews.

Table 1

*Summary of selected literature*

Author(s) ) and Year	Article Title	Sample		Instrument(s) used	Findings
		Student level	University		
Al-Seheel & Noor (2016)	Effects of an Islamic-based gratitude strategy on Muslim students' level of happiness	63 Muslim Undergraduate Students	Islamic University Malaysia (IIUM)	Satisfaction with life scale (SWLS) & Scale of Positive and Negative Experience (SPANE)	Study found that Muslim students who practiced Islamic-Based Gratitude exercise reported higher happiness levels over time compared to those who practised Secular-Based Gratitude or a Life-details Exercise.
Achour et al (2017)	Religious Commitment and its Relation to Happiness among Muslim Students: The Educational Level as Moderator.	Muslim Students: 183 undergraduate and 47 postgraduate	Universiti Malaya (UM) and Islamic University Malaysia (IIUM)	15-item Subjective Happiness Scale and 20-item for religious commitment designed by researcher	Study found that religious commitment (moderated by happiness) shows positive and significant correlations with happiness.

Tan et al (2021)	Being Creative Makes You Happier: The Positive Effect of Creativity on Subjective Well-Being	256 undergraduate students (Study 1a) and 291 working adults (Study 1b); 68 undergraduate students in study 2	Not specified	Study 1: Scale of Positive and Negative Experience (SPANE), Satisfaction with Life Scale (SWLS), 10-item Perceived Stress Scale (PSS), and 15-item self-perceptions of creativity scale; Study 2: The Guilford's Alternative Uses Test (AUT) and PSS.	Study found that after controlling the impact of self-perceived stress, creativity is found to have positive relationship with subjective well-being not only in young adults but also working adults. Furthermore, creative priming task was found to be facilitative in increasing subjective well-being.
Pengpid & Peltzer (2019)	Sedentary Behaviour (SB), Physical Activity (PA) and Life Satisfaction, Happiness and Perceived Health Status in University Students from 24 Countries	12,492 undergraduate students from 24 low- and middle-income countries	Universiti Malaya (UM)	International Physical Activity Questionnaire (IPAQ) short form, 1 life satisfaction question designed by researcher and Subjective Happiness Scale (SHS)	Study found that higher SB was found to be linked with poorer life satisfaction, perceived health and lower happiness while moderate and/or high PA increased the probability for higher

---

					life satisfaction, greater happiness, and better perceived health.
<hr/>					
					Study found that higher level of trait Emotional Intelligence (EI) was found to correspond with low perfectionism and increased happiness. Additionally, higher EI was observed to reduce maladaptive perfectionism. However, it does not terminate the negative impact that causes declining level of happiness amongst young adults.
Badri et al (2021)	Trait Emotional Intelligence and Happiness of Young Adults: The Mediating Role of Perfectionism	259 university students, 218 undergraduate students, and 26 foundation students, and 15 postgraduate students.	Online platform : Qualtrics, presumably from University of Nottingham	Oxford Happiness Questionnaire (OHQ), Trait Emotional Intelligence Questionnaire (TEIQue-SF), and Almost Perfect Scale-Revised (APS-R)	

---



Tan et al (2018)	Extraversion and happiness: The mediating role of social support and hope.	360 Psychology major, majority Chinese undergraduate students	Universiti Tunku Abdul Rahman	Extraversion subscale derived from the Big Five Inventory, Multidimensional Scale of Perceived Social Support (MSPSS), The Adult Hope Scale (AHS), and The Oxford Happiness Questionnaire (OHQ).	Study found that extraversion, social support, and hope were found to have significant link with happiness. Hope was found to mediate both the relationship between extraversion and happiness and also social support and happiness. Moreover, extraversion increase happiness through social support and hope consecutively (serial mediating effect).
------------------	----------------------------------------------------------------------------	---------------------------------------------------------------	-------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Tan et al (2019)	Problem-Solving Ability and Stress Mediate the Relationship Between Creativity and Happiness.	481 undergraduate students and 371 school-going adolescents	Not specified	Study 1: Self-rated Creativity Scale, Social problem-solving inventory revised-short form (SPSI-R-SF), Perceived stress scale (PSS), Oxford happiness questionnaire (OHQ), Satisfaction with life scale (SWLS); Study 2: The Malay version of the self-perceived creativity, SPSI-R-SF, PSS, OHQ, and SWLS.	Study found that creativity has positive relationship with both problem-solving ability and happiness. Also, problem-solving ability was also found to have positive link with happiness. However, stress was found to have negative relationship with all the variables measured.
Siah et al (2020)	Non-attachment and happiness: mediating versus moderating roles of grit personality.	360 Undergraduate students	Not specified	Short Grit Scale (Grit-S), Non-Attachment Scale – Short Form (NAS-SF), and Subjective Happiness Scale (SHS)	Study found that non-attachment is positively linked with a component of grit (consistency of efforts not consistency of interest) and happiness. Also, consistency of efforts mediates rather than moderate

						the relationship between non-attachment and happiness.
Khairuddin & Mahmud (2020)	Modelling the effects of Psychological Well-Being Attributes on Students' Happiness	384	Science and Technology undergraduate students	UiTM Shah Alam	Instrument developed based on a focus group interview and resources related to psychological well-being issues	Study found that general health, vitality, and self-acceptance has significant positive link with students happiness. Notably, self-acceptance was found to be the most significant predictor.
Tan et al (2017)	The Role of Self-Esteem and Social Support in the Relationship between Extraversion and Happiness: a Serial Mediation Model	311	Undergraduate students	Not specified: Different universities in Malaysia	Big Five Inventory (BFI), Oxford Happiness Questionnaire (OHQ), Rosenberg Self Esteem Scale (RSES), Multidimensional Scale of Perceived Social Support (MSPSS),	Study found that extraversion, self-esteem, and social support were found to have significant link with happiness. Also, self-esteem and

					social support mediated the relationship between extraversion and happiness, independently and accumulatively.
Lee (2017)	Youth engagement in meaningful activities and happiness: A comparative study of Chinese undergraduates from Taiwan and Malaysia	Undergraduate students	Not specified	Self-report of Engagement in Meaningful Activity Survey and Authentic Happiness Inventory (AHI)	Study found that there is significant positive relationship between engagement in meaningful activities and happiness level of undergraduate students.

**Main Findings**

*Predictors of Happiness*

The eleven articles reported religious commitment, Islamic-based gratitude strategy, creativity, sedentary behaviour, physical activity, trait emotional intelligence, extraversion personality, non-attachment, psychological well-being attributes, and youth engagement in meaningful activities as having positive relationship with happiness. Notably, extraversion personality and religious element was discussed in two articles respectively which shows an extent of common ground in the focus of happiness studies done among undergraduate students in Malaysia. Both predictors evidently showed positive relationship with happiness.

Furthermore, this review found a range of mediators which uniquely affect the relationship between predictors and level of happiness. Particularly, it was found that educational level mediates relationship between religious commitment and happiness; perfectionism mediates the relationship between trait emotional intelligence and happiness; social support, hope, and self-esteem mediate extraversion personality and happiness; problem-solving ability and stress mediate relationship between creativity and happiness; lastly, grit personality mediates the relationship between non-attachment and happiness.

In this review, it was found that predictors and other dependent variables of happiness were elected and explored in confidence of theoretical justifications as well as gaps identified from previous studies. Specifically, Lyubomirsky et al.'s (2005), Sustainable Happiness Model (SHM) was used to explain the effectiveness of Islamic-based intervention as compared to conventional interventions when dealing with religious undergraduate students as the concepts of SHM largely coincides with the Qur'anic concept. In a related note of religiousness, Achour et al (2017), adopted the perspectives of Basic Utility Theory as discussed by Gundlach & Opfinger (2013), as basis to the relationship between happiness and religiosity.

Pengpid & Peltzer (2019), in their study explored the independent and combined links between Sedentary behaviour (SB), physical activity (PA), life satisfaction, happiness and perceived health in university students in low- and middle-income countries as there is limited studies done on exploring the relationship between SB and (PA) with life satisfaction, happiness and perceived health.

Also, Tan et al (2021), noted Broaden-and-build theory and Maslow's Hierarchy model in the discussion of the relationship between creativity and happiness where demonstrating creativity is considered as the highest level of self-actualization and evidently, it has an advantageous effect to not only positive effect but also overall well-being.

Badri et al (2021), leaned on evidence from previous studies in making hypotheses that shaped the direction in their research which concerns the relationships between EI and happiness, EI and perfectionism, perfectionism and happiness, and lastly the role of Perfectionism as a moderator between EI and Happiness. Similarly, Khairuddin & Mahmud (2020) discussed variables of psychological well-being using practices and findings from previous studies and also findings from a focus group interview which then incorporated into the framework of their study.

Interestingly, Tan et al (2017), from their review of previous studies found theoretical gaps which led to the investigation of underlying independent and accumulative effects in the relationship between extraversion and happiness. In another study, Tan et al. (2018) reviewed literature on the role of hope as the moderating variable in other happiness studies. Subsequently, the lack of empirical data in the investigation of hope in the relationship between extraversion and happiness substantiated the call for their cross-sectional, correlational design, serial mediation model study. In a familiar note, Tan et al. (2019) in another study discussed the back bone of their study outlining the abundance of literature demonstrating the bidirectional relationship which exists between creativity and happiness, yet further pointed out that the volume of information is disproportionate toward one direction and moreover, the underlying mechanism between these relationships also lack empirical evidence.

Siah et al (2020), in their literature review pointed that there have been indication of conceptual similarity and relevancy between non-attachment and grit, which led to the investigation if non-attachment moderate or mediate the link between grit and happiness.

Lastly, Lee (2017), noted in that there is a lack of investigation in the context of youth's perspectives of meaningful activities and its affect to their level of happiness across the Asia Pacific region. To address this gap, Lee (2017), conducted comparative investigation between Malaysia and Taiwan regarding the types of activities that are considered to be meaningful to youth and if these activities contributes to their happiness.

### **Intervention Strategies and Recommendations**

In regard to strategies to foster undergraduate students in Malaysia happiness, most articles highlighted involvement of related parties which includes individual efforts, researchers, policy makers, university program managers, as well as other related social institutions.

In particular, university managements or governing bodies were largely identified as one of the important cogs in the effort to foster undergraduate students' happiness. Specifically, university management could establish policies which endorse strategies to elevate happiness and the quality of life of students during their time in university. This review found recommendations such as setting up programmes which reduces sedentary behaviour and increases physical activity, to include profiling of emotional intelligence competency in student recruitment process to develop a specific curriculum for students at the same time to hold emotional intelligence workshops to address the needs of this cohort, to develop specific curriculums and syllabus which aim to normalise psychoeducation and open dialogues on mental health. The themes of discussion could include the positive and negative consequences of different personality traits, awareness to importance of social circles and relationships in regulating emotions and self-perception, repercussions of social media addiction, strategies to boost healthy self-esteem, vitality, and capacity for self-acceptance

Finally, this review also found recommendations and emphasis on the utility of creativity which has a positive impact on undergraduate student's happiness in the short term and also in the long run. Creativity was recommended to be introduced and emphasized into students' learning programs as well as to inform mental health support and the like to include element of creativity in their therapy sessions such as art therapy.

### **Direction for Future Research**

In regard to direction of future research on undergraduate students' happiness, this review found multiple studies to have highlighted the ampleness of cross sectional studies but limited data derived from other methodologies. In this regard, Tan et al (2019) recommended experimental design studies to be performed in the effort to reduce inaccuracies produced by studies done with the same methodologies, also known as Common Method Bias (CMB).

Additionally, it was recommended that future studies should consider the underlying constructs behind each variables within this specific context. Moreover, studies should aim only limited to exploring the relationship between happiness and its predictors, but to also refine the interpretations for each variables being studied. For an example Siah et al (2020) noted that the term non-attachment exists with different conceptualisations within the Buddhist context, the Indian context, as well as the psychology context. In other words, it is crucial to grasp the denotations of the variables in studies involving abstractions.

Finally, future research are recommended to take into consideration the indirect facilitative mechanism in the relationship between level of happiness and its predictors. Mediation analysis is necessary in cementing the possible link between happiness and its predictors. Nonetheless, it should be understood that mediation analysis alone could not produce conclusive cause and effect relationship. To that affect, researchers much always consider the independent and accumulative mediating effects of a predictor of happiness.

### **Implications of The Study**

This review has noted that higher level of religious commitment, Islamic-based gratitude strategy as opposed to conventional strategy, increased creativity, reduced sedentary behaviour and increased physical activity, emotional intelligence, extraversion personality, non-attachment, psychological well-being attributes, and engagement in meaningful activities to have positive relationship with happiness among undergraduate students in Malaysia. Additionally, the weight of mediator effects were also reiterated across most studies. These findings not only could be used to increase individual awareness and behaviour modifications but could also serve as a valuable insight for professional mental health support and other related institutions to set in motion systematic research effort, facilitative policies, and exhaustive interventions strategies in the strive to boost happiness.

In addition, this review highlighted the volume of existing cross-sectional studies and the scarcity of information from studies done with other methodologies. Moreover, research of happiness within this context were seemingly done by fragmented research community composed by multiple research groups with different research focus. Future effort could focus to address these lapses.

### **Conclusion**

The current review explored happiness and its predictors, the strategies and recommendations as well as gaps to be addressed in future research specifically within the context of undergraduate students in Malaysian universities. Distinctly, literature showed that with the right intervention, happiness level of undergraduate students could be efficiently increased. That is to say, investigation of happiness is essential as there are underlying factors that could be unique within each contexts which could be pivotal in the effort of developing effective policies and intervention strategies to foster happiness. Notably, predictors of happiness are largely personal traits and behaviours which could be identified, modified, and consequently, honed to specific purposes. Nonetheless, data that could be derived from happiness studies are far from conclusive, which prompts for attention and rigorous undertaking not only from individual effort as well as collaborations between researchers, policy makers, and other multitude of related social institutions.

### **Conflict of Interest/ Disclosure Statement**

There is no potential conflict of interest to disclose.

### **Source of Funding**

None.

## References

- Achour, M., Nor, M. R., Amel, B., Bin Seman, H. M., & Yusoff, M. Y. Z. (2017). Religious commitment and its relation to happiness among Muslim students: The educational level as moderator. *Journal of religion and health, 56*(5), 1870-1889.
- Al-Seheel, A. Y., & Noor, N. M. (2016). Effects of an Islamic-based gratitude strategy on Muslim students' level of happiness. *Mental Health, Religion & Culture, 19*(7), 686-703.
- Arampatzi, E., Burger, M., Ianchovichina, E., Röhrich, T., & Veenhoven, R. (2018). Unhappy development: Dissatisfaction with life on the eve of the Arab Spring. *Review of Income and Wealth, 64*, S80-S113.
- Badri, S. K. Z., Kong, M. Y., Yunus, W. M. A., Nordin, N. A., & Yap, W. M. (2021). Trait Emotional Intelligence and Happiness of Young Adults: The Mediating Role of Perfectionism. *International Journal of Environmental Research and Public Health, 18*(20), 10800.
- Easterlin, Richard A. 1974. "Does Economic Growth Improve the Human Lot? Some Empirical Evidence." In *Nations and Households in Economic Growth*, edited by P. David and W. Melvin, 89–125. Palo Alto, CA.: Stanford University Press.
- Habib, D. G., Donald, C., & Hutchinson, G. (2018). Religion and life satisfaction: A correlational study of undergraduate students in Trinidad. *Journal of religion and health, 57*(4), 1567-1580.
- Hernández-Torrano, D., Ibrayeva, L., Sparks, J., Lim, N., Clementi, A., Almukhambetova, A., ... & Muratkyzy, A. (2020). Mental health and well-being of university students: A bibliometric mapping of the literature. *Frontiers in Psychology, 11*, 1226.
- Kaiser, C. F., & Vendrik, M. (2019). Different versions of the Easterlin Paradox: New evidence for European countries. In *The Economics of Happiness* (pp. 27-55). Springer, Cham.
- Khairuddin, M. T., & Mahmud, Z. (2020, March). Modelling the effects of Psychological Well-Being Attributes on Students' Happiness. *Journal of Physics: Conference Series 1496*, (1), 012003.
- Lee, M. N. (2017). Youth Engagement in Meaningful Activities and Happiness: A Comparative Study of Chinese Undergraduates from Taiwan and Malaysia. *Pertanika Journal of Social Sciences & Humanities, 25*(1).
- Li, L., & Shi, L. (2019). Economic growth and subjective well-being: analyzing the formative mechanism of Easterlin Paradox. *The Journal of Chinese Sociology, 6*(1), 1-19.
- Mey, S. C., and Yin, C. J. (2015). Mental health and wellbeing of the undergraduate students in a research university: a Malaysian experience. *Soc. Indic. Res. 122*, 539–551.
- Ministry of Health. (2016). Press statement by Minister of Health Malaysia. Author. Retrieved from [http://www.moh.gov.my/english.php/database\\_stores/store\\_view\\_page/22/451](http://www.moh.gov.my/english.php/database_stores/store_view_page/22/451). Accessed 5 July 2022
- Opfinger, M. (2016). The Easterlin paradox worldwide. *Applied Economics Letters, 23*(2), 85-88.
- Pengpid, S., & Peltzer, K. (2019). Sedentary behaviour, physical activity and life satisfaction, happiness and perceived health status in university students from 24 countries. *International journal of environmental research and public health, 16*(12), 2084.
- Reyes-García, V., Babigumira, R., Pyhälä, A., Wunder, S., Zorondo-Rodríguez, F., & Angelsen, A. (2016). Subjective wellbeing and income: Empirical patterns in the rural developing world. *Journal of Happiness Studies, 17*(2), 773–791. doi:10.1007/s10902-014-9608-2



- Siah, P. C., Tun, P., & Chan, M. (2020). Non-attachment and happiness: mediating versus moderating roles of grit personality. *Current Issues in Personality Psychology*, 8(1), 31-40.
- Lopez, S. J., Pedrotti, J. T., & Snyder, C. R. (2018). Positive psychology: The scientific and practical explorations of human strengths. Sage publications.
- Slag, M., Burger, M. J., & Veenhoven, R. (2019). Did the Easterlin Paradox apply in South Korea between 1980 and 2015? A case study. *International Review of Economics*, 66(4), 325-351.
- Stevenson, B., & Wolfers, J. (2008). Economic growth and subjective well-being: Reassessing the Easterlin paradox (No. w14282). National Bureau of Economic Research.
- Tan, C. Y., Chuah, C. Q., Lee, S. T., & Tan, C. S. (2021). Being Creative Makes You Happier: The Positive Effect of Creativity on Subjective Well-Being. *International Journal of Environmental Research and Public Health*, 18(14), 7244.
- Tan, C. S., Krishnan, S. A., & Lee, Q. W. (2017). The role of self-esteem and social support in the relationship between extraversion and happiness: A serial mediation model. *Current Psychology*, 36(3), 556-564.
- Tan, C. S., Low, S. K., & Viapude, G. N. (2018). Extraversion and happiness: The mediating role of social support and hope. *PsyCh journal*, 7(3), 133-143.
- Tan, C. S., Tan, S. A., Hashim, M. I. H., Lee, M. N., Ong, A. W. H., & Yaacob, S. N. B. (2019). Problem-solving ability and stress mediate the relationship between creativity and happiness. *Creativity Research Journal*, 31(1), 15-25.
- Ten Kate, J., De Koster, W., & Van Der Waal, J. (2017). The effect of religiosity on life satisfaction in a secularized context: Assessing the relevance of believing and belonging. *Review of religious research*, 59(2), 135-155.