TAYLOR'S UNIVERSITY
Wisdom · Integrity · Excellence

PREVALENCE AND PREDICTORS OF HAPPINESS AMONG THE RESIDENTS OF PPR SERI PANTAI

Che Wan Harel Daniel Che Wan Khairul Anuar, XianHan Tai, **Arvin Raj Moganasumdram,** Ibrahim Hamadh Salim, Yin How Wong, Rusli Nordin

School of Medicine, Faculty of Health and Medical Sciences, Taylor's University, 47500 Subang Jaya, Selangor, Malaysia

Introduction

- Happiness is defined as ''the state of ***pleasurable contentment of mind or contentment of one's circumstances***''.

- Meaning, an individual's happiness is based on their perception and outlook in life, and will vary from one person to the next based on their needs and perceived wants (*Happiness*, 2021)

Introduction

- The overall consensus from past studies is that the ***level of happiness correlates with economic opportunities and average household income***, which is lacking among the individuals of the B40 community (Zaremohzzabieh et al., 2019).
- Previous studies were ***focused on individuals from different demographics (general Malaysian population)***, hence, the results from previous happiness studies might not be applicable to the B40 population (Zaremohzzabieh et al., 2019; Lee & Lai, 2020; Boo et al., 2016).
- This study tries to explore the happiness levels among the PPR population during Covid-19 pandemic.

PPR Seri Pantai and B40 community

- Location: Lembah Pantai Kuala Lumpur
- Housing project established by the government for *low income individuals*
- People who earn a monthly household income of *less than RM4850* are classified as B40
- The *low income community (such as the B40 community)* are disproportionately affected by the pandemic → Immense financial and mental *pressure* → *Unhappy*

Income Classification by Household

Household Group		Median Income (RM)	Income Range (RM)
B40	B1	1,929	Less than 2,500
	B2	2,786	2,500 - 3,169
	B3	3,556	3,170 - 3,969
	B4	4,387	3,970 - 4,849
M40	M1	5,336	4,850 - 5,879
	M2	6,471	5,880 - 7,099
	M3	7,828	7,110 - 8,699
	M4	9,695	8,700 - 10,959
T20	T1	12,586	10,960 - 15,039
	T2	19,781	15,039 or more

*Source: Household Income and Basic Amenities Survey Report 2019, Department of Statistics Malaysia

Problem statement & Research Gaps

- Lack of studies done to assess the ==*prevalence of happiness*== *in low income communities* particularly during ***COVID-19 pandemic*** and the consequent ***economic crisis.***

- Lack of data available on the ==*predictors of happiness*== in ***low income communities*** especially in the context of COVID-19 pandemic.

- No prior studies done to study the ==***association between happiness with quality of life and mental health***== especially in ***low income communities.***

Research Objectives

- *To determine the ==**prevalence**== of happiness in PPR Seri Pantai*

- *To determine the ==**sociodemographic factors associated with happiness**== in PPR Seri Pantai*

- *To determine association between ==**quality of life and happiness.**==*

- *To determine association between ==**mental health and happiness.**==*

Methodology

Study Population	Instruments
Cross sectional study ***Non-probability*** sampling → ***Convenience*** sampling ***Inclusion criteria → PPR Seri Pantai residents***, ***Age >18 years*** ***Exclusion criteria → Cognitive impairment*** ***Online*** survey form ***Voluntary*** participation	***Happiness*** - Rana Happiness Index ***(RHI)***, Oxford Happiness Questionnaire ***(OHQ)*** ***Quality of life*** - World Health Organization Quality of Life: Brief Version ***(WHOQOL-BREF)*** ***Mental health*** - Depression Anxiety Stress Scale-21 ***(DASS-21)***

| Analysis	Ethics
● **Demographics** - Descriptive statistics ● **RHI and OHQ** - Spearman's correlation ● **Prevalence of happiness** - Descriptive statistics ● **Happiness and RHI or OHQ** - Chi squared test ● **Happiness and QOL** - Pearson's or Spearman's correlation ● **Happiness and mental health** - Chi squared test	● **Anonymity** ● **Informed consent** ● Reviewed and approved by **Taylor's University Human Ethics Committee** *(HEC 2019/058)*

Results

Demographics

- Total of **180 respondents.**
- **Female** is **almost 5 times** the number of males.
- Mostly from the **older adult age group (76.1%)** with the **mean age of 42.**
- Mostly **below tertiary level of education (85.0%).**
- Most of the participants in this study are **Malays (87.2%)** with the remaining participants being the Indians.
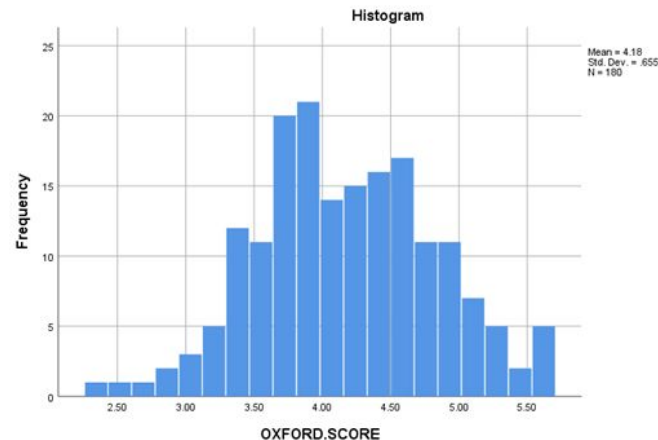
Variable	n(%)
Gender	
Male	32 (17.8%)
Female	148 (82.2%)
Age group	
Young adult (18-35)	43 (23.9%)
Old adult (>35)	137 (76.1%)
Ethnicity	
Malay	157 (87.2%)
Indian	23 (12.8%)
Marital status	
Single	33 (18.3%)
Married	112 (62.2%)
Divorced/Widowed	35 (19.4%)
Education level	
School	153 (85.0%)
College	27 (15.0%)
Occupation	
Student	5 (2.8%)
Unemployed	91 (50.6%)
Working	84 (46.7%)
Mean Age	42.4±11.4

Test of Normality

RHI Score
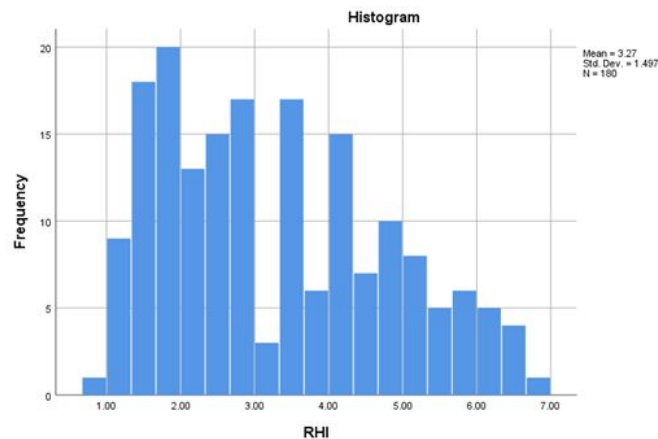
Oxford Score

	RHI score	OHQ score
Skewness	0.450	-0.770
Kurtosis	0.039	-0.197
Kolmogorov-Smirnov test	p<0.001	p=0.200

RHI and OHQ

- *Correlation* between OHQ and RHI is ==*statistically significant (p≤0.001).*==
- The *Spearman's correlation coefficient* between OHQ score and RHI score is ==*0.486*== which indicates a ==*moderate positive correlation*== between the scores
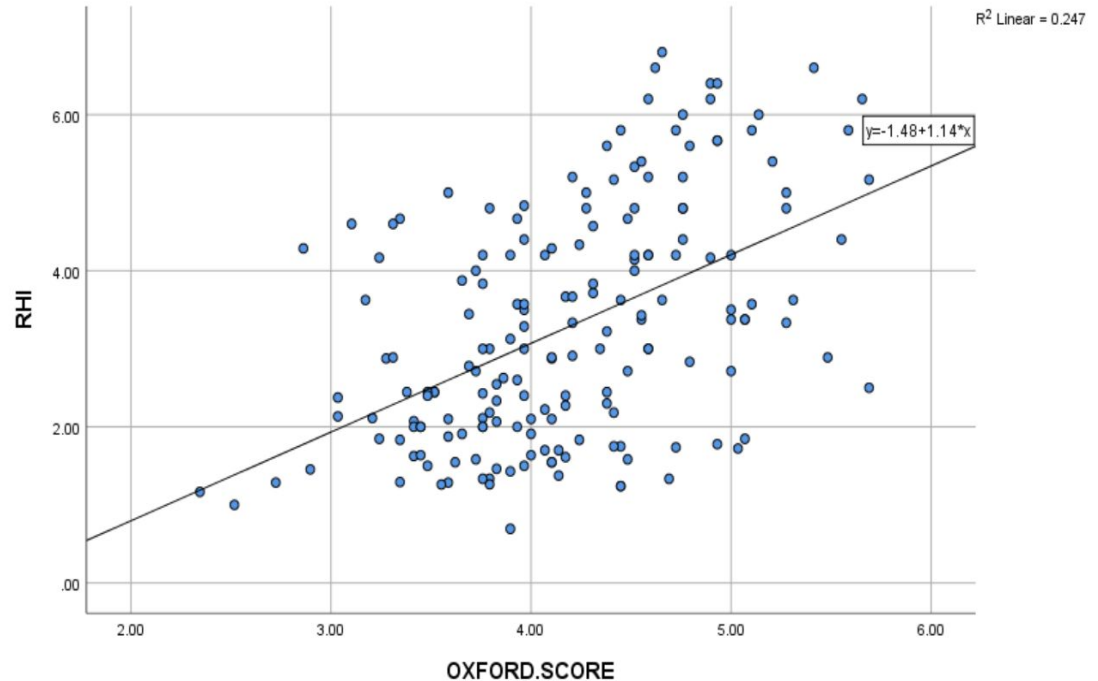
Prevalence of Happiness

	n(%)	
	Happy	**Unhappy**
RHI	87 (48.3%)	93 (51.7%)
OHQ	103 (57.2%)	77 (42.8%)

Using the RHI, majority are unhappy (51.7%)

Using the OHQ, majority are happy (57.2%)

Predictors of Happiness

RHI and Demographics

Chi-squared test

- ***Younger adults** are more likely to be **unhappy***
- ***Indians** are more likely to be **unhappy***
- ***Single people** people are more likely to be **unhappy***
- ***People with tertiary level of education** are more likely to be **unhappy***
- ***Similar results** between OHQ and RHI with demographics*

Variable	Happy	Unhappy	p-value
Sex			0.567
Male	14 (43.8%)	18 (56.3%)	
Female	73 (49.3%)	75 (50.7%)	
Age group			0.002
Young adult (18-35)	12 (27.9%)	31 (72.1%)	
Older adult (>35)	75 (54.7%)	62 (45.3%)	
Ethnicity			0.006
Malay	82 (52.2%)	75 (47.8%)	
Indian	5 (21.7%)	18 (78.3%)	
Marital status			0.008
Single	8 (24.2%)	25 (75.8%)	
Married	59 (52.7%)	53 (47.3%)	
Divorced/Widowed	20 (57.1%)	15 (42.9%)	
Education level			0.003
Below tertiary	81 (52.9%)	72 (47.1%)	
Tertiary and above	6 (22.2%)	21 (77.8%)	
Employment Status			0.056
Unemployed	40 (41.7%)	56 (58.3%)	
Working	47 (56.0%)	37 (44.0%)	

Association between Happiness and QOL

Spearman's and Pearson's Correlation Test

	RHI (Spearman's)		OHQ (Pearson's)	
	Correlation coefficient	**P-value**	**Correlation coefficient**	**P-value**
Physical	0.176	**0.018**	0.354	**<0.001**
Psychological	0.368	**<0.001**	0.638	**<0.001**
Social	0.370	**<0.001**	0.574	**<0.001**
Environment	0.231	**0.002**	0.386	**<0.001**

All 4 domains of QOL are significantly and positively correlated with both the RHI and OHQ

Association between Happiness and Mental Health

Chi-squared test between RHI and stress, anxiety, and depression

		Happy	Unhappy	p-value
Stress	**Normal**	76 (59.8%)	51 (40.2%)	**<0.001**
	Stressed	11 (20.8%)	42 (79.2%)	
Anxiety	**Normal**	50 (61.7%)	31 (38.3%)	**0.001**
	Anxiety	37 (37.4%)	62 (62.6%)	
Depression	**Normal**	71 (67.0%)	35 (33.0%)	**<0.001**
	Depressed	16 (21.6%)	58 (78.4%)	

People who are stressed, anxious or depressed are more likely to be unhappy compared to those who are not. *Similar results between OHQ and RHI with mental health*

Discussion

Prevalence of Happiness

- The *prevalence of happiness* in the residents of PPR Seri Pantai were *48.3%* and *57.2%* as determined using the RHI and OHQ respectively.
- People who are happy and unhappy are *almost equal.*
- Prevalence is *lower compared to previous studies.*

Possible reasons for lower prevalence of happiness:
- *Different study population*
  - *Boo et al. (2016) → Malaysians* (Data adopted from 6th WVS (World Values Survey 2010-2014)) → *96.2%*
  - *Cheah & Tang (2013) → Penangites → 92.0%*
  - *Lee & Lai (2020) → Malaysian teachers → 99.3%*
- Many studies found significant relationship between *income and happiness → PPR Seri Pantai has lower happiness levels*
- Our study is conducted in the midst of the *COVID-19 pandemic*

Happiness and demographics

Ethnicity

- ***Significant relationship between ethnicity and happiness.***
- ***Malays are much happier than Indians.***
- This finding could be due to the ***unequal sample size*** and also the ***lack of Chinese and Indian participants*** in this study
- ***Cheah & Tang (2013)*** → ***Significant relationship between ethnicity and happiness***; Chinese are less likely to be very happy compared to other races and Chinese women are more unhappy
- ***No Chinese respondents*** → Cannot refute or support Cheah & Tang's (2013) findings

Happiness and demographics

Age

- *Majority* of participants are *older adults (76.1%)*
- *Older adults*
  - Spend *less* time on *stressful events*; *More* time on *emotionally lifting* ones (e.g. family time) **(Bell, 2019)**
  - Better at *avoiding situation or people who makes them feel bad* and focus more on *positive images and situations* **(Bell, 2019)**
  - More *financially secured*
- *Younger adults*
  - Recent graduates → COVID-19 → *Lesser job opportunities* → Pressured to find job → Unhappy

Association Happiness and demographics

Marital Status

- *Marital status has a significant association with happiness.*
- *Similar to previous studies* by *Cheah & Tang (2013), Lim et al. (2017), Tokuda et al. (2008).*
- *Married people are much happier* than people who are single
- Single people → Lonely + No partners to share their burden

Association Happiness and demographics

Education level

- ***Education level was found to have a significant association with happiness***
- Unlike previous studies (Zaremohzzabieh et al., 2019; Cheah & Tang, 2013), we ***found a negative correlation***
- ***Those with lower level of education were happier (52.9%)***
- Could be due to those with higher education are **more aware** of the of the **inequality** and **injustices** that contribute to their present situation

Association between Happiness and QOL

- *QOL and happiness are positively and significantly correlated* (p=<0.001) **through both the RHI and OHQ in all four domains**, which is similar to prior studies (Abolghasem et al., 2016; Ismail et al., 2014; Khormehr et al., 2019; Susniene & Jurkauskas, 2009)

- The *physical domain has the weakest correlation to happiness* which was demonstrated before (Abolghasem et al., 2016).

- This differs when using *RHI* as an indicator for happiness where *psychological and social aspects of QOL are the most significant* which is supported by prior studies (Abolghasem et al., 2016; Medvedev & Landhuis, 2018)

Association between Happiness and Mental Health

- Similar to previous studies (Clark et al.; 2018, Yiengprugsawan, 2013; Yıldırım & Güler, 2020), we found that *those with mental health issues are unhappier than those without*
- Mental health has a strong influence on an individual's happiness and life-satisfaction since it greatly *affects their perception of the events and interactions they experience*.
- This study found that *more than half of the population has mental health issues, to a certain degree.*
- The World happiness report describes that *eliminating mental health can be more effective than monetary aids* in raising happiness levels (Clark et al., 2018).
- Therefore, we agree that *solving mental health issues will have a significant increase in happiness levels of more than half of the population.*
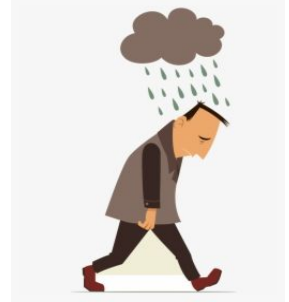
Conclusion

- *Prevalence* of happiness in PPR Seri Pantai is *lower* (compared to the general population of Malaysia.

- *Ethnicity, age, marital status, and education level* has a significant association with happiness whereas **gender** and **employment status** did not have a significant association.

- *Happiness is also found to be associated with QOL and mental health.*

Limitations

- There is **no Chinese** who participated in this study and also a **lack of Indian participants**

- Cross sectional study → **Cannot establish causal relationship**

- Convenience sampling → **Sampling bias**

- Questionnaires cannot be given to participants **physically** due to the Movement Control Order

Future studies

- Future studies are recommended to include a *larger population of study* and also preferably *contain each of the major ethnic groups* in Malaysia (i.e. Malay, Chinese and Indian).

- More studies should focus on studying *happiness and its predictors in the low income community particularly in the context of COVID-19* as there is a lack of studies on them.

- Lastly, future studies may further *explore the relationship between demographics, QOL and mental health with happiness* or take another step further in *establishing a causal relationship among them.*

References

1. Oxford Advanced Learner's Dictionary[Internet].HAPPINESS NOUN - DEFINITION, PICTURES, PRONUNCIATION AND USAGE NOTES. [cited 3 February 2021]. Available from: https://www.oxfordlearnersdictionaries.com/definition/english/happiness

2. Zaremohzzabieh Z, Samah AA, Samah BA, Shaffril HAM. Determinants of happiness among youth in Malaysia. Int J Happiness Dev. 2019;5(4):352.

3. Impacts of COVID-19 disproportionately affect poor and vulnerable: UN chief [Internet]. United Nations. 2020 [cited 2021 Feb 5]. Available from: https://news.un.org/en/story/2020/06/1067502

4. Lee MF, Lai CS. Mental Health Level and Happiness Index among Female Teachers in Malaysia. Ann Trop Med Public Heal. 2020;23(13 A).

5. Boo MC, Yen SH, Lim HE. A note on happiness and life satisfaction in Malaysia. Malaysian J Econ Stud. 2016;53(2):261–77.

6. Ismail, M., & Laidin, J. (2020). Public Happiness and Its Causes in Malaysia. *FBM Insights*, *1*, 58–61.

7. Ismail R, Hafezi MH, Nor RM. The effect of demographic characteristic to quality of life and happiness in Malaysia. Res J Appl Sci Eng Technol. 2014;7(1):198–205.

8. Susniene D, Jurkauskas A. The concepts of quality of life and happiness - Correlation and differences. Eng Econ. 2009;3(63):58–66.

9. Yıldırım M, Güler A. Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID- 19 . The COVID-19 resource centre is hosted on Elsevier Connect , the company ' s public news and information . 2020;(January).

10. Doğan T, Akinci Çötok N. Adaptation of the Short Form of the Oxford Happiness Questionnaire into Turkish: A Validity and Reliability Study. Türk Psikolojik Danışma ve Rehb Derg. 2011;4(36):165–70.

References

11. Cheah YK, Tang CF. The socio-demographic determinants of self-rated happiness: The case of Penang, Malaysia. Hitotsubashi J Econ. 2013;54(1):1–16.

12. Bell S. Happiness Across the Life Span: Not a Slippery Slope after all. USC Dornsife [Internet]. 2019 Nov 25; Available from: https://dornsife.usc.edu/news/stories/3117/happiness-across-the-life-span-not-a-slippery-slope-after-all/#:~:text=Research shows that life satisfaction,our 40s and early 50s.

13. Yiengprugsawan V. Europe PMC Funders Group Happiness , Mental Health , and Socio-Demographic Associations Among a National Cohort of Thai Adults. 2013;13(6):1019–29.

14. Clark AE, Flèche S, Layard R, Powdthavee N, Ward G. The Origins of Happiness [Internet]. Princeton University Press; 2018 [cited 2021 Feb 5]. Available from: https://press.princeton.edu/books/hardcover/9780691177892/the-origins-of-happiness

15. Abolghasem P, Dehghankar L, Badiee SE, Jafarisani M, Tadayyon H, Khalafi A. Studying the Association of Quality of Life and Happiness among University Students.

16. Tokuda Y, Inoguchi T. Interpersonal mistrust and unhappiness among Japanese people. Soc Indic Res. 2008;89(2):349–60.

17. Khormehr M, Honarmandpour A, Adineh M, Jahangirimehr A, Shahvali EA. A Survey on the Relationship between Quality of life and Happiness among Children and Adolescents under the Supervision of Welfare Organization of Ahwaz in 2017. J Pharm Res Int. 2019;28(2):1–8.