

Original Research Article

Influence of mental health perception and willingness-to-pay towards intention-to-support inclusion of mental health coverage in health insurance schemes: a cross sectional study in Malaysia

Maaheend R. Kumaran^{1*}, Amuthaganesh Mathialagan², Kayilvezhi Katheravan¹,
Kumaraswamy Kadamane¹, Priyananthini Rajagopal¹, Fuad R. Mahabot¹,
Java K. M. Oblenda¹, Arshad Begum¹, Arulmuli Suppiah¹, Renu Ramalinggam³

¹Department of Medicine, ²Department of Medicine and Public Health, Perdana University, Kuala Lumpur, Malaysia
³International Business Machines, Petaling Jaya, Malaysia

Received: 09 July 2021

Accepted: 14 August 2021

*Correspondence:

Dr. Maaheend R. Kumaran,

E-mail: maaheend123@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Across the globe, there have been many mental health disorders and one of the suggested ways of financing mental health disorders is mental health insurance coverage. This study is aimed at determining the influence of mental health perception (MHP) and willingness- to-pay (WTP) towards supporting inclusion of mental health coverage in health insurance schemes in Malaysia.

Methods: A validated questionnaire was utilized for this study whereby three variables of the study (MHP, WTP and intention-to-support) were measured. The structured questionnaire contained closed ended questions where present of dichotomous (yes/no), multiple choice questions and 7-point Likert scale questions. 800 questionnaires were distributed to target respondents through online platforms. The inclusion criteria were local citizen of Malaysia, those who gave consent to take part in the study, literate in English, aged 21 years old and above. The data were analysed utilizing statistical package for the social sciences (SPSS) software version 23.0.

Results: More than half (87.7%) of the respondents agreed to pay for monthly mental health insurance premiums. Among those who were unwilling to pay (12.4%), were unable to afford the mental health insurance. Similarly, majority of respondents had favourable perception of mental health disorders. Correlation and regression analysis revealed that both WTP and influence of MHP were significant predictors of intention to support.

Conclusions: WTP and influence of MHP are important predictors that should be highlighted in creating equitable mental health care for all.

Keywords: Mental health perception, Willingness-to-pay, Health insurance, Mental health coverage

INTRODUCTION

The burden of mental disorders continues to increase all around the world with a significant collision on health, major social, human rights, and economic consequences.¹ Mental health disorders include bipolar disorder, dementia, depression and other psychoses.² A steady increase in the prevalence of mental health disorders among adults in

Malaysia has been monitored by the national health and morbidity survey.³ 4.2 million out of 14.4 million Malaysian aged 16 and above would suffer from mental illness according to the current prevalence of 29.2%, in which every three in ten adults aged 16 years and above will have some sort of mental health issues in some part of their lives.^{3,4}

Health insurance is a type of insurance coverage that pays for medical expenses due to an illness.^{5,6} The expenses could be the cost of hospitalization, medicine prescription or doctor's consultation fees.⁶⁻⁸ However, insurance industries do not cover mental health in their insurance plan because there are shortages of mental health practitioners in general and mostly in certain parts of the country.⁹ However, a bigger reason for the exclusion of outpatient mental health coverage in existing health insurance schemes is due to the expensive nature of covering such claims.^{10,11}

To accommodate the increased expenditure, insurance premiums need to be increased which is deemed non-marketable by insurance providers.^{12,13} A common rationalisation used by insurance providers is that there is uneven perception of mental health needs among the public which would deter their willingness to pay for such increased premium.^{14,15} Nonetheless, initiatives such as Affordable Care Act in the United States have enhanced their insurance coverage on mental health by showing that some populations have improved perception and welcome the coverage with a higher willingness to pay for the premiums.¹⁶

Such exploration on perception and willingness to pay for mental health coverage in health insurance schemes has not been undertaken in Malaysia so far. Hence, this study is conducted to determine the influence of mental health perception and willingness to pay towards intention to support inclusion of mental health coverage in health insurance schemes with a hypothesis that postulates a direct relationship between the two variables.

METHODS

Study design and sample population

This study was conducted via a cross-sectional survey design among the general public in Malaysia. Sample size was calculated using the Krejcie and Morgan 1970 sampling guide.¹⁷ which deemed a size of 384 respondents as adequate for this study. To account for an acceptable response rate, a target of 800 respondents was decided for this project. An online questionnaire was constructed to be disseminated to target participants for this study. The inclusion criteria were local citizens of Malaysia who gave consent to take part in the study with acceptable literacy in English and aged above 21 years old. Completed questionnaires were scrutinized and incomplete surveys were excluded from the study.

Instrumentation and data collection

There is total of 4 sections in the questionnaire, starting with the demographic profile in section 1 followed by section 2 which examines the perception and knowledge towards mental health disorders with total number of 13 questions using a 5 point Likert scale. Section 3 involves the willingness to pay for inclusion of mental health

coverage in health insurance plans with a total of 11 similar Likert scale questions. The final section involved Intention-to-support inclusion of mental health coverage in health insurance which was represented by 3 Likert scale questions.

The online study survey was distributed through selected messaging platform and social media as well as state government channels to ensure adequate representation from all over Malaysia. Out of the 800 questionnaires distributed, 414 questionnaires were returned completed, yielding a response rate of 51.8%.

Data analysis

A total of 414 completed questionnaires were analysed using statistical package for the social sciences (SPSS) software 23.0. To obtain descriptive information, exploratory data analysis was done first on both individual variables. To analyse the relationship between mental health perception and willingness to pay towards the inclusion of mental health coverage and intention to support, linear regression was utilized accordingly. A p value less than 0.05 was considered statistically significant.

Ethical consideration

Online consent was obtained from participants prior to participating in this study. Ethics approval for this study was obtained from Perdana University institutional review board.

RESULTS

A total of 414 respondents were recruited for this study whereby, 243 (58.3%) were male and 171 (41.7%) were female, with the age range of 21-30 as the highest in number. Majority of the respondents were Malays which comprises 49.5% (205), and the remaining 21.7% (90) were Chinese, 18.2% (75) were Indian and other races comprised of 10.6% (44). Concerning the educational level of the respondents, only 19.8% (82) of respondents' attained postgraduate qualification and (19.3%) were secondary education while the majority, 44.3% (183) were degree holders. Looking into average monthly income, a vast majority of the respondents were paid below RM 2000 which accounted for 46.9% (194) whereas only 18.8% (78) of the respondents were paid with RM 2001-RM 4000. Most of the respondents 35.3% (146) were taking care of father whereas 15.2% (63) of the respondents were not taking care of any of their parents. Moreover, 62.3% (209) of the respondents were not having pre-existing illness at this moment of time.

Most of the respondents "somewhat disagree" that "most people with mental health problems want to have paid employment. A total of, 56.3%, (n=233) "strongly agree" that "if a friend had a mental health problem, they know what advice to give them to get professional help" while

the rest, 43.7%, (n=181) "somewhat agree". Most respondents, 37.4%, (n=154) "strongly agree" that "medication can be an effective treatment for people with mental health problems and many strongly agree that mental illness is a serious health disorder, 51.0% (n=211) "strongly agree". Majority respondents, 48.8%, (n=198) also "strongly agree" that "people with severe mental health problems can fully recover" and "most people with mental health problems go to a healthcare professional to get help". As for knowledge, most respondents strongly agree that depression, bipolar disorder, drug addiction and schizophrenia are mental health disorders while interestingly many were unsure that stress was a mental health issue.

As shown in Table 3 60.9% (n=252) responded "definitely yes" that they are willing to pay for mental health coverage as part of the insurance. Nearly three quarters, 71.8% (297) of the participants agreed that they are willing to pay a premium increase of up to 10%. The majority, 59.7% (247) agreed that mental health should be covered as part of the insurance plan. Around half of the respondents, 42.8% (135) agreed to include psychiatric counselling only if there were no additional premiums while vast majority of respondents 71.8% (304) responded that they did not have adequate mental health coverage under their current health insurance plan. Moreover, most of the respondents, 60.9% (252) indicated that they knew of close acquaintances who have been denied coverage of mental health treatment. Lastly, most of the respondents were "confident" that they could pay the increase in the premium on basis of 48.6% (201).

The results of the Pearson correlation analysis revealed that there was a positive correlation between perception towards mental health disorders and the intention-to-support for the inclusion of mental health coverage in health insurance schemes in Malaysia. ($r=0.357$, $p<0.0001$). The study also shows that willingness-to-pay is also correlated with intention to support ($r=0.345$, $p<0.0001$) (Table 4).

As shown in Table 5, the regression coefficient and determination for perception towards mental health disorder were ($\beta=0.514$, $t=5.927$, $F=34.078$, $R^2=0.312$, and $p<0.001$).

Table 1: Demographic profile of respondents.

Categories	Frequency	Percentage
Age (years)		
21-30	162	39.1
31-40	126	30.4
41-50	93	22.4
51-60	33	8.1
Gender		
Male	171	41.7
Female	243	58.3
Ethnicity		
Malay	205	49.5
Indian	75	18.2
Chinese	90	21.7
Others	44	10.6
Education level		
Primary	69	20.4
Secondary	80	19.3
**Higher education - diploma or degree	183	44.3
Postgraduate qualification	82	19.8
Average monthly income		
Below RM 2000	194	46.9
RM 2001-RM 4000	78	18.8
RM 4001-RM 8000	94	22.7
Above RM 8000	48	11.6
Taking care of parents/parents-in-law		
Father	146	35.3
Mother	125	30.2
Both	63	15.2

The test results showed there was a significant relationship between perception towards mental health disorders and intention-to-support for the inclusion of mental health coverage in health insurance schemes in Malaysia. Similarly, the regression coefficient and determination for WTP were ($\beta=0.669$, $t=8.214$, $F=43.401$, $R^2=0.401$, $p<0.001$). The test results showed there was a significant relationship between WTP towards the inclusion of mental health coverage in health insurance schemes and ITS.

Table 2: Perception and attitudes towards mental health disorders.

Categories	Frequency	Percentage (%)
Most people with mental health problems want to have paid employment		
Strongly agree	40	9.6
Somewhat agree	54	13.0
Neutral	155	37.4
Somewhat disagree	165	40.0
If a friend had a mental health problem, I know what advice to give them to get professional help		
Strongly agree	233	56.3
Somewhat agree	181	43.7
Medication can be an effective treatment for people with mental health problems		

Continued.

Categories	Frequency	Percentage (%)
Strongly agree	155	37.4
Somewhat agree	126	30.4
Neutral	36	8.8
Somewhat disagree	97	23.4
Mental illness is a serious health disorder		
Strongly agree	211	51.0
Somewhat agree	138	33.3
Neutral	53	12.8
Somewhat disagree	12	2.9
Psychotherapy (e.g. counseling or talking therapy) can be an effective treatment for people with mental health problems		
Strongly agree	194	46.9
Somewhat agree	138	33.4
Neutral	47	11.3
Somewhat disagree	21	5.0
Strongly disagree	14	3.4
People with severe mental health problems can fully recover		
Strongly agree	198	48.8
Somewhat agree	143	34.5
Neutral	26	6.1
Somewhat disagree	27	6.5
Strongly disagree	17	4.1
Most people with mental health problems go to a healthcare professional to get help		
Strongly agree	250	60.5
Somewhat agree	124	29.9
Neutral	32	7.7
Somewhat disagree	8	1.9
Depression is a type of mental health disorder		
Strongly agree	268	64.7
Somewhat agree	113	27.3
Neutral	21	5.3
Somewhat disagree	8	1.9
Strongly disagree	4	0.8
Stress is a type of mental health disorder		
Strongly agree	105	25.4
Somewhat agree	185	44.6
Neutral	68	17.3
Somewhat disagree	33	7.9
Strongly disagree	20	4.8
Bipolar disorder is a type of mental health disorder		
Strongly agree	156	37.6
Somewhat agree	117	28.2
Neutral	69	16.6
Somewhat disagree	43	10.4
Strongly disagree	30	7.2
Schizophrenia is a type of mental health disorder		
Strongly agree	297	71.8
Somewhat agree	81	19.5
Neutral	24	5.8
Somewhat disagree	10	2.9
Drug addiction is a type of mental health disorder		
Strongly agree	250	60.5
Somewhat agree	92	22.2
Neutral	47	11.2

Continued.

Categories	Frequency	Percentage (%)
Somewhat disagree	21	5.1
Strongly disagree	4	1.0

Table 3: Willingness and attitudes towards mental health disorders.

Categories	Frequency	Percentage (%)
Will you be willing to pay for mental health coverage as part of your insurance?		
Definitely yes	252	60.9
Yes	117	28.2
No	33	8.0
Definitely no	8	1.9
How much of a premium increase are you willing to pay for mental health coverage in your health insurance plan?		
50% increase	31	7.8
25% increase	83	20.4
10% increase	297	71.8
Should mental health be covered as part of a basic health care plan or should be paid for directly by people who use it?		
Should be covered as part of the insurance plan	247	59.7
Should be paid separately by individual	167	40.3
Should psychological or psychiatric counselling for mental health problems be included in a basic health plan benefit package?		
Include even with additional premiums	134	32.4
Include only if there are no additional premiums	177	42.8
Do not include	36	8.8
Not sure	67	16.0
Do you have adequate mental health coverage under your current health insurance plan?		
Yes	117	28.2
No	304	71.8
Have you, a friend or a family member ever been denied coverage for mental health treatment, whether that be access to affordable medication or consultation with a mental health professional such as a psychiatrist, psychologist or therapist?		
Yes, I have	117	28.2
Yes, I know someone who has	252	60.9
No	45	10.9

Table 4: Correlation analysis between MHP, WTP and ITS.

Variable	Perception towards MPH	WTP	ITS
Perception towards MPH	1	0.504***	0.457**
WTP	0.504***	1	0.577***
ITS	0.457**	0.577**	1

**less than 0.001

Table 5: Summary of direct effect testing using regression analysis for MHP and WTP towards ITS.

Variables	Standardized co-efficient		R2	F	Sig
	Beta	t			
Perception towards MHP	0.522	5.927	0.312	34.078	0.001**
WTP	0.669	8.214	0.401	43.401	0.001**

DISCUSSION

The demographic shown in Table 1 above, is similar to the general population in Malaysia. In terms of ethnicity, educational level and average monthly income, the

respondents in this study mirror the general characteristics of the Malaysian population.^{18,19} This is important as this is a pioneer study looking into both the role of MHP and WTP among Malaysians for inclusion of mental health coverage in health insurance schemes.

MHP

The results from this study demonstrate that most Malaysians have favorable perception and knowledge towards mental health disorders. Most agreed that bipolar disorder, schizophrenia, anxiety, addiction and depression are serious health concerns which is similar to previous studies.^{20,21} However, many felt stress was not a mental health concern and this is probably due to the trivializing attitudes toward stress.²² Stress is one of the most common condition individuals come across daily. So much so, that many do not perceive it as a medical concern.²³ This assumption should be changed because stress is the first indicator of both mental health and metabolic complications.²⁴ The study also showed that many respondents felt that individuals with mental health should not seek paid employment. A similar pattern of results were obtained in a previous study where there are some employees with mental disorders who complained about various work-related stigma and opposition from colleagues about their employment.²⁵ A past study noticed, employment discrimination is one way of shunning people with mental disorders from key areas of life.^{26,27} Employment enables in-society participation and allow people with mental disorder to purposefully engage in the broader community.²⁷ Supportive employment plans can be an aid for individuals with mental disorders and help believe themselves that they are primed for community integration.²⁸ Human perceptions on mental health disorders influences one's work opportunity and it is important these perceptions are informed by facts and not stigma.²⁹

This study also showed that MHPs is a significant predictor of intention to support inclusion of mental health coverage in health insurance schemes. Perception and attitudes are important aspect of behavioural practice. Those with positive perception of mental health are likely to be concerned about future mental health expenses and supportive of mental health coverage. Inversely, those with negative perception or low knowledge on mental health are more likely to avoid any forum or discourse on mental health coverage which inadvertent would become a barrier to their support of mental health coverage inclusion in health insurance schemes in Malaysia.³⁰ In Malaysia, private healthcare is considered a more sensible option for mental health care due to confidentiality and privacy concerns. However, without insurance, patients may choose to lessen treatment or even opt out of it due to tremendous cost.³¹ The Malaysia psychiatric association (MPA) has ensured for mental health treatment to be included in health insurance premiums.³² Our results show that high emphasis on improving perception and knowledge is pertinent to public adoption and acceptance of mental health coverage in health insurance schemes.

WTP

The majority of the respondents were willing to pay a certain additional amount for mental health coverage in

their health insurance schemes. 90% of the respondents were willing to pay between 10%-25% increase in the premium for this particular coverage. A study from Arif has shown that individuals with high educational levels (such as the respondents in this study) are very likely to have higher WTP due to the realization that high cost of medical care cannot be managed by individual income.³³ The higher level of education backs in the understanding of how much to pay for mental health insurance. This study also showed that many respondents were comfortable if psychiatric counselling for mental health problems was included in the basic health plan without any additional premiums. This is because insured individuals who have low incomes may encounter significant financial barriers that make it a burden for them to pay for high additional premium.³⁴ A 10-25% increase was deemed acceptable for many respondents.

Out study also showed that WTP is a strong predictor for intention to support mental health coverage in health insurance schemes. The rationale for this could be attributed to suggestion given by a study done in Iran, which shows that respondents with higher WTP are more likely to be health conscious and concerned on having adequate coverage of themselves.^{35,36} Therefore, those individuals who are more willing to pay for health insurance are also more likely to expect more coverage in their insurance schemes. Couple with the affordability agreed above, this study provide an initial insight into consumer interest in purchasing mental health coverage in their insurance schemes. Malaysian insurance providers should adopt strategies seen in European countries for mental health coverage and develop similar schemes in accordance with Malaysian affordability.³⁷ Insurance companies should have a predetermined premium loading for mental health coverage that also considers not only treatment of mental illness but also inclusive of other interventions such as psychosocial rehabilitation, psychotherapy, and counselling which are likely to go on for months.³⁸

CONCLUSION

In conclusion, this study has shown individual MHPs and WTP play a major role in determining support for inclusion of mental health coverage in health insurance schemes. This study provides a clear insight for policy makers to develop recommendations that improve knowledge and perceptions of mental health disorders to ensure equitable access to health care.^{39,40}

The study also provides an insight into consumer affordability for mental health coverage that could encourage insurance companies to consider including mental health care in their insurance schemes.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

- GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018;392(10159):1789-858.
- Steel Z, Marnane C, Iranpour C, Chey T, Jackson JW, Patel V, Silove D. The global prevalence of common mental disorders: a systematic review and meta-analysis 1980-2013. *Int J Epidemiol*. 2014;43(2):476-93.
- Salleh MR. The burden of mental illness: An emerging global disaster. *J Clin Health Sci*. 2018;3(1):5.
- Ibrahim N, Amit N, Shahar S, Wee LH, Ismail R, Khairuddin R, et al. Do depression literacy, mental illness beliefs and stigma influence mental health help-seeking attitude? A cross-sectional study of secondary school and university students from B40 households in Malaysia. *BMC Public Health*. 2019;19(4):544.
- Schoeps A, Lietz H, Sié A, Savadogo G, De Allegri M, Müller O, et al. Health insurance and child mortality in rural Burkina Faso. 2015;8.
- Mezones-Holguín E, Amaya E, Bellido-Boza L, Mougenot B, Murillo JP, Villegas-Ortega J, Sara JCDC. Cobertura de aseguramiento en salud: el caso peruano desde la Ley de Aseguramiento Universal [Health insurance coverage: the peruvian case since the universal insurance act]. *Rev Peru Med Exp Salud Publica*. 2019;36(2):196-206.
- All you need to know when buying medical insurance. Available at: <https://www.prudential.com.my/en/we-do-pulse/all-stories/all-you-need-to-know-about-getting-medical-insurance-in-malaysia/>. Accessed on 22 February 2020.
- Kalbe P. Neuordnung des BG-lichen Heilverfahrens aus der Sicht eines niedergelassenen D-Arzt [Reform of occupational insurance medical treatment from the perspective of an accident insurance consultant]. *Unfallchirurg*. 2016;119(11):915-20.
- Bogusz GB. Health insurers still don't adequately cover mental health treatment. Available at: <https://www.nami.org/Blogs/NAMI-Blog/March-2020/Health-Insurers-Still-Don-t-Adequately-Cover-Mental-Health-Treatment#:~:text=A%20couple%20of%20reasons%3A%20One,insurance%20companies%20for%20their%20services>. Accessed on 22 February 2020.
- Wong EC, Collins RL, Cerully JL, Roth E, Marks J, Yu J. Effects of stigma and Discrimination Reduction TRAININGS conducted under the California mental health Services AUTHORITY: An evaluation of the National alliance on mental ILLNESS adult programs. *Rand Health Q*. 2016;5(4):9.
- Toohey MJ, Muralidharan A, Lucksted A, Dixon L. Caregiver positive and NEGATIVE Appraisals: Effects of the National alliance on mental Illness FAMILY-TO-FAMILY Intervention. *J Nerv Ment Dis*. 2016;204(2):156-9.
- Stevens M, Manthorpe J, Martineau S, Steils N, Norrie C. An exploration of why health professionals seek to hold statutory powers in mental health services in England: considerations of the approved mental health professional role. *J Ment Health*. 2019:1-7.
- Weil TP. With Additional Insurance Available, Why Are Not More Mental Health Services Being Provided? *J Nerv Ment Dis*. 2015;203(12):906-8.
- The pros and cons of using health insurance for mental health care. On-demand mental health care. Larkr. 2018. Available at: <https://larkr.com/pros-cons-using-health-insurance-mental-health-care/>. Accessed on 22 February 2020.
- Korolenko CP, Kensin DV. Reflections on the past and present state of Russian psychiatry. *Anthropol Med*. 2002;9(1):51-64.
- Maust DT, Moniz MH, Zivin K, Kales HC, Davis MM. Attitudes About Required Coverage of Mental Health Care in a U.S. National Sample. *Psychiatric services (Washington, D.C.)*. 2017;66(10):1101-4.
- Krejcie RV, Morgan DW. Determining Sample Size For Research Activities. *Sage J*. 1970;30(3).
- Arshat H, Tey Nai Peng. An overview of the population dynamics in Malaysia. *Malays J Reprod Health*. 1988;6(1):23-46.
- Tafran K, Tumin M, Osman AF. Poverty, Income, and Unemployment as Determinants of Life Expectancy: Empirical Evidence from Panel Data of Thirteen Malaysian States. *Iran J Public Health*. 2020;49(2):294-303.
- Stahlberg O, Soderstrom H, Rastam M, Gillberg C. Bipolar disorder, schizophrenia, and other psychotic disorders in adults with childhood onset AD/HD and/or autism spectrum disorders. *J Neural Transm (Vienna)*. 2004;111(7):891-902.
- Kingdon D. Everybody gets stressed, it's just the way we react that differs. *Psychiatric Bulletin*. 2009;33(12):441-2.
- Parekh R. What is mental illness? 2018. Available at: <https://www.psychiatry.org/patients-families/what-is-mental-illness>. Accessed on 26 March 2021.
- Herman A, Stein D, Seedat S, Heeringa S, Moomal H, Williams D. The South African stress and Health (SASH) Study: 12- month and lifetime prevalence of common mental disorders. *S Afr Med J*. 2009;99(5):339-44.
- Pervanidou P, Chrousos GP. Metabolic consequences of stress during childhood and adolescence. *Metabolism*. 2012;61(5):611-9.
- Rowan K, McAlpine DD, Blewett LA. Access and cost barriers to mental health care, by insurance status, 1999-2010. *Health Aff (Millwood)*. 2013;32(10):1723-30.
- Rowan K, McAlpine DD, Blewett LA. Access and cost barriers to mental health care, by insurance

- status, 1999-2010. *Health Aff (Millwood)*. 2013;32(10):1723-30.
27. Geoffrey R, Chris L. The Employment of People with Mental Illness. *Australian e-Journal for the Advancement of Mental Health*. 2005;4(2):129-71.
 28. Yasemin C, Hasan C. Social Problems of People with Psychiatric Disorders and Their Families: A Qualitative Study on Patient and Patient Relatives. *International Mediterranean Social Sciences Congress (MECAS)At: Budapest*. 2020.
 29. Harvey SB, Henderson M, Lelliott P, Hotopf M. Mental health and employment: Much work still to be done: *The Br J Psychiatr*. 2018;194(3).
 30. Riffel T, Chen SP. Exploring the Knowledge, Attitudes, and Behavioural Responses of Healthcare Students towards Mental Illnesses-A Qualitative Study. *Int J Environ Res Public Health*. 2019;17(1):25.
 31. Hanafiah AN, Bortel TV. A qualitative exploration of the perspectives of mental health professionals on stigma and discrimination of mental illness in Malaysia. *Int J Ment Health Syst*. 2015;10.
 32. Povera A. Include mental health treatment in insurance coverage, says MPA: *New Straits Times*. 2018. Available at: <https://www.nst.com.my/news/nation/2019/05/490498/include-mental-health-treatment-insurance-coverage-says-mpa>. Accessed on 04 March 2021.
 33. Arif AR. Willingness to Pay For Health Insurance in Sarawak, Malaysia: A Contingent Valuation Method. *Bangladesh J Med Sci*. 2018;17(2).
 34. Churchill C. Insuring the Low-Income Market: Challenges and Solutions for Commercial Insurers. *Geneva Pap Risk Insur Issues Pract*. 2007;32:401-12.
 35. Nosratnejad S, Rashidian A, Akbari Sari A, Moradi N. Willingness to Pay for Complementary Health Care Insurance in Iran. *Iran J Public Health*. 2017;46(9):1247-55.
 36. Hoffmann F, Koller D. Verschiedene Regionen, verschiedene Versichertenpopulationen? Soziodemografische und gesundheitsbezogene Unterschiede zwischen Krankenkassen [Different Regions, Differently Insured Populations? Socio-demographic and Health-related Differences Between Insurance Funds]. *Gesundheitswesen*. 2017;79(1):1-9.
 37. Bernard P, Ellingrud K, Godsall J, Kotanko B, Reich A. The future of life INSURANCE: Reimagining the industry for the decade ahead. 2020. Available at: <https://www.mckinsey.com/industries/financial-services/our-insights/the-future-of-life-insurance-reimagining-the-industry-for-the-decade-ahead>. Accessed on 15 March 2021.
 38. Singh J. Psychiatric and Mental Health Services Operational Policy. Available at: https://www.moh.gov.my/moh/images/gallery/Polisi/PSYCHIATRY_OPERATIONAL_POLICY.pdf. Accessed on 15 March 2021.
 39. Corrigan PW, Watson AC. Understanding the impact of stigma on people with mental illness. *World Psychiatry*. 2002;1(1):16-20.
 40. Subu MA, Holmes D, Elliot JE, Jacob JD. Persistent taboo understanding mental illness and stigma among Indonesian Adults through grounded theory. 1970.

Cite this article as: Kumaran MR, Mathialagan A, Katheravan K, Kadamane K, Rajagopal P, Mahabot FR, et al. Influence of mental health perception and willingness-to-pay towards intention-to-support inclusion of mental health coverage in health insurance schemes: a cross sectional study in Malaysia. *Int J Community Med Public Health* 2021;8:4174-81.