

Confirming the Factors that Contribute to Graduates' Emotional Wellness at Malaysian Higher Education Institutions

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Abstract

Purpose: Due to the COVID-19 pandemic, schools and colleges all over world transitioned into online classes. It's clear that the ongoing pandemic has utterly disrupted students' education, impacting the mental and physical health of countless students. This study proposed a research framework on graduate's emotional wellness which employs Health Belief Model that comprises perceived susceptibility, perceived severity, perceived benefits, perceived barriers and self-efficacy. The aim of this paper was to examine the reliability and validity of the five constructs that contribute to graduate emotional wellness at Malaysian Higher Education Institutions.

Design/methodology/approach: This study used a questionnaire with a cross-sectional survey design. Questionnaires were distributed online to graduates from selected private and public Higher Education Institutions. Partial Least Square Equation Model (PLS-SEM) was used to analyse the results in this study. The general validity testing of the model was carried out in the framework of the SEM (structural equation modelling) approach by applying the Confirmatory Factor Analysis (CFA) method. This paper was merely focusing on the convergent and discriminant validity of the measurement scales.

Findings: Findings from this study have verified that the instrument and variables used in this study are valid and reliable in measuring the graduate emotional wellness (perceived

susceptibility, perceived severity, perceived benefits, perceived barriers, and self-efficacy). The results also show very essential and significant elements in one of the main concepts in the graduate emotional wellness. Overall, from a total of sixty-one measurement items, four items were eliminated from scale measurement.

Research limitations/implications: This study involved a small number of samples; thus, it is suggested to involve a larger number of samples for future research.

Practical implications: The outcome of this study gives several impacts to the management, academics, counsellors and other entities which include Students' Representative Council on how to improve services and upgrade the necessary facilities to enhance the graduate emotional wellness.

Originality/value: This study adopted measurement from previous studies and tested it among graduates in private and public Higher Education Institutions in Malaysia.

Paper type: Research paper

Keywords: Graduate emotional wellness, Perceived susceptibility, Perceived severity, Perceived benefits, Perceived barriers, Self-efficacy, Higher education institutions

Introduction

Around the world, the concept of "health and well-being" is gaining popularity in the public health sector (Rehman, Habib, & Fatima, 2014). Healthy people are free of sickness (Owen, 1999). Wellness is the ability to become aware of and make lifestyle choices that are compatible with work situations (Firth-Cozens, 2001). This study defines wellbeing as the dynamic interaction of physical, psychological, spiritual, social, intellectual, and occupational health (Lawson, Venart, Hazler, & Kottler, 2007). In a condition of wellbeing, one's concept of living (life goal) becomes a purposeful lifestyle or way of being that leads to optimal functioning (Smith, Robinson III, & Young, 2007). Wellness is a dynamic and evolving process that grows and adapts (Hill, 2004). Emotional well-being is the ability to value feelings and channel them constructively. Emotions also influence a person's mood, ideas, attitudes, determination, and interests at all times of day and night, assisting them in making decisions. Ability to connect body and sentiments, accept guidance and intuitions for existence and acceptable configuration. Emotional wellness is predicated on self-respect, confidence, and dignity. A person in good emotional health can cope with stress and adjust to changing circumstances. A life devoid of worries and worry, vision, inspired action, and inner creativity are all possible with emotional equilibrium. Emotional health is linked to mental health and affects daily functioning. A stress-free, anxiety-free, despair-free, grief-free life will be possible for graduates who recall their priorities. It is widely known that prevention is preferable to post-mortem intervention. In this way, emphasising emotional well-being can help graduates live in the social environment by improving their ability to regulate lifecycles.

Mental health problems among graduates are common, but understudied, as has been reported in both the public press and academic literature (Bernstein, LeBlanc, Bentley, Barreira, & McNally, 2021). A common source of suffering as a result is social comparison that is not positive, self-consciousness and judgmental fears, perseverance in the face of failures and challenges, fear of failure, and general uneasiness (Di Pierro, 2017; Troop, 2011). Graduate students across a wide range of fields of study are more prone than the general public to suffer from anxiety and depression than the general public (Amanda, Garcia, Lauren, & Nadine, 2014; Di Pierro, 2017; Levecque, Anseel, De Beuckelaer, Van der Heyden, & Gisle, 2017). Loneliness and a lack of social support, the competitiveness of the academic programme, a poor work-life balance, a lack of advisor support, the number of semesters spent in school, financial concerns, being identified as female, transgender, or no binary, and being a member

of a sexual minority or an international student have all been linked to mental health problems among graduate students (Amanda et al., 2014; Di Pierro, 2017; Hyun, Quinn, Madon, & Lustig, 2006; Rummell, 2015).

The Health Belief Model (HBM) is a psychological model that has been developed to explain and predict health-related behaviours, according to scholars. Changes in health behaviours are influenced by a variety of factors, including perceived vulnerability, perceived severity, perceived advantages, perceived barriers, and self-efficacy (Park, 2011). This paper's primary goal is to explore the validity and reliability of five constructs that are associated with graduate emotional wellness in Malaysian higher education institutions, as well as the reliability and validity of the constructs altogether (HEIs). Hypotheses testing for any constructs is beyond the scope of this study due to the small sample size available because a pilot study research.

Literature Review

Health Belief Model

The Health Belief Model (HBM) is a conceptual framework for encouraging behavioural changes at the individual level (Green, Murphy, & Gryboski, 2020). According to the HBM, a health-specific social cognitive model or psychological model is required to anticipate and explain why individuals alter or maintain specific health-related behaviours, particularly when it comes to the utilisation of health services (Laranjo, 2016; Nasir & Almahdi, 2020). The HBM focuses on the individual's attitudes and beliefs. It states that in order for an individual to change their behaviour, they must have sufficient individual motivation to make the change, as well as the belief that the change is both attainable and beneficial (Green et al., 2020). The HBM can be used to assist individuals in moving toward flourishing by encouraging the development of protective factors for positive mental health and coping with negative mental health risk factors (Green et al., 2020).

Such occurrences or cues in health might be internal (e.g., the awareness of physical symptoms) or external (e.g., the perception of environmental cues) (e.g., interpersonal interactions or influence from others or media communication). Several factors drive changes in health behaviours according to this model. These include perceived vulnerability, perceived severity, perceived advantages, perceived barriers, and self-efficacy (Park, 2011). According to the findings of this study, the HBM was used as a theoretical framework in order to gain a better understanding of the ways in which graduates' perceived vulnerability, perceived severity, perceived advantages, perceived barriers, and self-efficacy were all used as factors that influenced their emotional health. All the variables that were used are depicted in the following figure (Refer Figure 1).

Perceived Susceptibility

People's perceptions about their risks of developing a sickness or condition are referred to as perceived susceptibility (Zare et al., 2016). As a result, the HBM predicts that people who believe they are at risk of becoming unwell will participate in behaviours that reduce their chances of contracting the illness (Champion & Skinner, 2008). Many people underestimate their own vulnerability to disease, despite evidence that perceptions of susceptibility are predictive of engaging in health-promoting behaviours such as a healthy diet and exercise regimen, quitting smoking, self-examinations, and dental treatment (Abraham & Sheeran, 2005). Graduates who have endured significant educational stress usually report symptoms such as depression, anxiety, behavioural disorders, impatience, and other challenges, among other things (Verma, Sharma, & Larson, 2002). In this study, the perceived susceptibility is the stress factor.

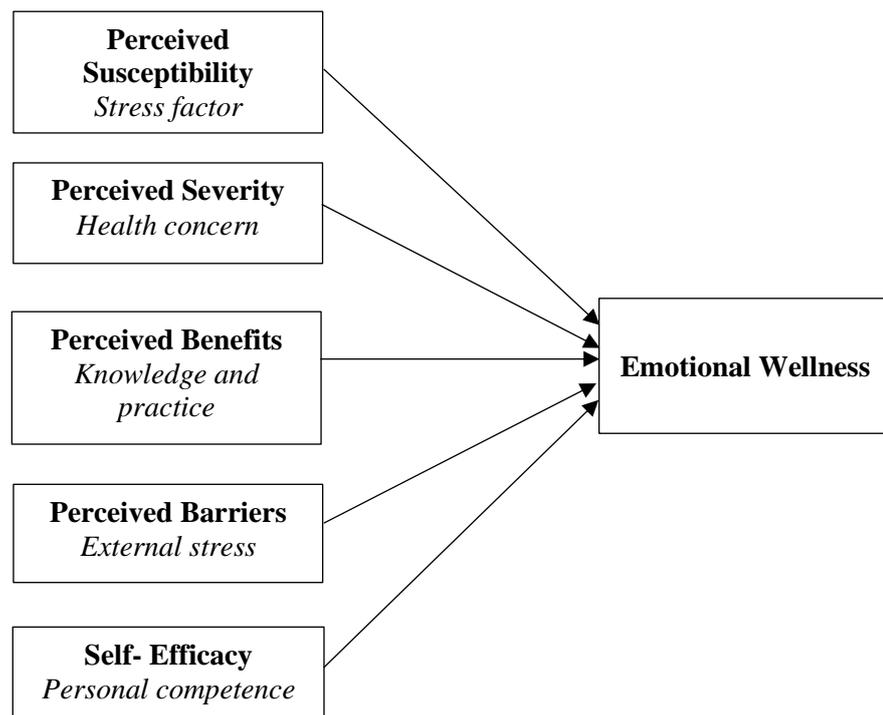


Figure 1: Research Framework

Perceived Severity

Perceived severity is a term that refers to how terrible or severe a sickness or condition is perceived to be by the one who is experiencing it (Champion & Skinner, 2008). The severity of an illness is perceived differently by each individual. Emotional responses to the potential dangers of getting or neglecting to treat an illness include assessments of the anticipated medical and clinical consequences of doing so (Zare et al., 2016). In the same way that some expectations about the harmful impact of a sickness on one's lifestyle have evolved over time, certain attitudes toward medical competence and information have changed over time. Job loss, financial issues, familial challenges, and pain or suffering, to name a few factors, can all have an impact on one's perception of the significance or severity of an illness (Aris, 2016). In this study, health stress, which can rise among graduates and is a significant driver of health and well-being status, is examined as one of the health and risk behaviours of graduates (Papadopoulou et al., 2014).

Perceived Benefits

When it comes to health-promoting behaviours, perceived benefits are an individual's judgement of the utility or efficacy of engaging in such behaviours in order to minimise the risk of disease (Kim & Kim, 2020). Perceived benefits are additional advantages that people believe a specific activity will have over and beyond the perceived threat that they believe it will have. Even if they know objective facts about how successful their actions were, the more likely it is for them to continue with that behaviour (Champion & Skinner, 2008). Therefore, concentrate on the efficiency of healthy behaviour in minimising the threat of developing the illness (Zare et al., 2016). According to the findings of this study, knowledge and practise are two perceived benefits that may assist graduates in promoting behaviours that minimise the risk of illness.

Perceived Barriers

Expected complications associated with a certain health action that prevent people from engaging in recommended behaviours are referred to as perceived barriers (Louis II, 2016). As an example, costs, a perceived risk of inconvenience (such as the side effects of a medical procedure), and discomfort (such as suffering from physical pain or emotional disturbance) associated with engaging in a given behaviour are all instances of perceived obstacles (Kim & Kim, 2020). Therefore, in order for behaviour to change, the perceived benefits must surpass the perceived constraints (Champion & Skinner, 2008). The features of perceived benefits and perceived barriers are completely contrary (Kim & Kim, 2020). In this study, it was discovered that external stress was seen as a barrier to emotional well-being. During which the graduate will have to cope with concerns such as ignorance, humiliation, neglect, fear, being young, forgetfulness, a lack of time, and previous experience, among others.

Self-efficacy

Self-efficacy is defined as a person's confidence in his or her own ability to carry out a particular behaviour successfully (Glanz, Rimer, & Viswanath, 2008). Self-efficacy judgements made by individuals about their own levels of self-efficacy may have an impact on their feelings, thoughts, and motivation. Individuals with varying levels of self-efficacy can exhibit considerable behavioural differences as a result of these differences. Strong or high self-efficacy individuals have a strong belief in their own skills, and they perceive problems as tasks to be completed rather than threats to be avoided, according to the research (Bandura, 1977). According to this study, personal competency is synonymous with self-efficacy. Moreover, it acknowledges that having confidence in one's ability to affect change in outcomes is critical to modifying one's health behaviour (Champion & Skinner, 2008; Glanz et al., 2008).

Emotional Wellness

A successful lifestyle is described as one that involves self-awareness and healthy lifestyle choices. Wellness is defined as a dynamic and continuing process that includes self-awareness and healthy lifestyle choices. This is contingent on the physical, emotional, intellectual, social, and spiritual realms being in a state of equilibrium (Thimmapuram et al., 2017). Emotional wellness, according to the Vanderbilt University Wellness Center, is defined as "the understanding of one's own feelings and the appropriate expression of those feelings with mood stability, a sense of one's own worth, a positive attitude toward others, and the ability to cope with stress" (Zhang, Zhao, Lester, & Zhou, 2014). When it comes to one's emotional well-being, one must be conscious of their positive feelings, express them in a healthy way, maintain their mood stability, have a sense of well-being, have a positive attitude toward others, and be able to deal with stress when it arises, among other things (Habib, Riaz, & Akram, 2012; Rehman, Nadeem, Hussain, Khan, & Katpar, 2015). The degree to which a person possesses self-control and self-awareness determines his or her emotional well-being (Foster, Keller, & Boomer, 2007). It is hammered out in this study that having a happy view on life, being able to deal with stress, and being able to sustain satisfying connections with others are all important (Foster et al., 2007).

Methods

The data was analysed using the partial least approach after conducting a cross-sectional survey via an online survey. The data collected were purely quantitative and were obtained from graduates in a faculty at public and private HEIs in Malaysia.

Instruments

This study's instruments use a 5-point Likert Scale, with responses ranging from (1) strongly disagrees to (5) strongly agree. The measures in the questionnaires were adapted and adopted from previous studies, enabling differences in findings (Punch, 2005; Saunders et al., 2007). The purpose of employing an established measurement from previous studies was to link with them and fill the research gap that was identified in the theoretical framework. The quality of the adapted items regarding their reliability and validity has already been examined in prior studies (Bryman & Bell, 2007). Therefore, it gives the researchers confidence that these items are likely to produce satisfactory reliability and validity as well as increasing the likelihood of expanding the use of the construct to a larger context. Table 1 below shows the constructs used, a sample of the items used for each construct, the number of items used for each construct and the referred author/s.

Table 1: Instruments

Construct	Sample Item	Number of items	Author/s
Perceived Susceptibility	"I am concerned about my risk of getting mental health problem"	6	Greene, J. A. (2018)
Perceived Severity	"Having mental health problem would negatively affect my work"	6	Greene, J. A. (2018)
Perceived Benefits	"Getting health therapy can improve my perspective on mental health problem"	6	Greene, J. A. (2018)
Perceived Barriers	"I would prefer to get help from a family member or friend rather than a therapist"	10	Greene, J. A. (2018)
Self-Efficacy	"I believe health therapy will help me cope with mental health problem"	7	Greene, J. A. (2018)
Emotional Wellness	"I suffer frequent mood swings and attacks of anxiety"	10	Rehman, R., Nadeem, S., Hussain, M., Khan, R., & Katpar, S. (2015)

Data Analysis

The data in this study were analysed using Partial Least Square Equation Model (PLS-SEM) version 3.2.9. SEM (structural equation modelling) was used to verify the model's general validity by using confirmatory factor analysis (CFA) to compare it to two alternative models: the measurement model and the structural model, which were both suggested by Afthanorhan (2013). The measurement model conceptualised the sub-construct of Health Belief Model: perceived susceptibility - stress factor, perceived severity - health concern, perceived benefits - knowledge and practice, perceived barriers - external stress, and self-efficacy - personal competence. Graduate emotional wellness is a second order construct as illustrated in Figure 2. As a result, no hypotheses will be explored at this point in the research. It solely focuses on the measurement scales' convergent and discriminant validity. Due to the fact that all data was gathered from a single source, the first step in the analysis was to check for Common Method Bias by assessing the full collinearity as suggested by Kock (2015) and Kock and Lynn (2012). In this method all the constructs will be regressed against a common variable and if the VIF values > 5.0 , then indicates a potential collinearity problem. Table 2 presents VIF values for the dimensions of the graduate emotional wellness.

Table 2: VIF Value

External Stress	Health Concern	Knowledge & Practice	Personal Competence	Stress Factor
1.449	1.081	1.531	1.818	1.047

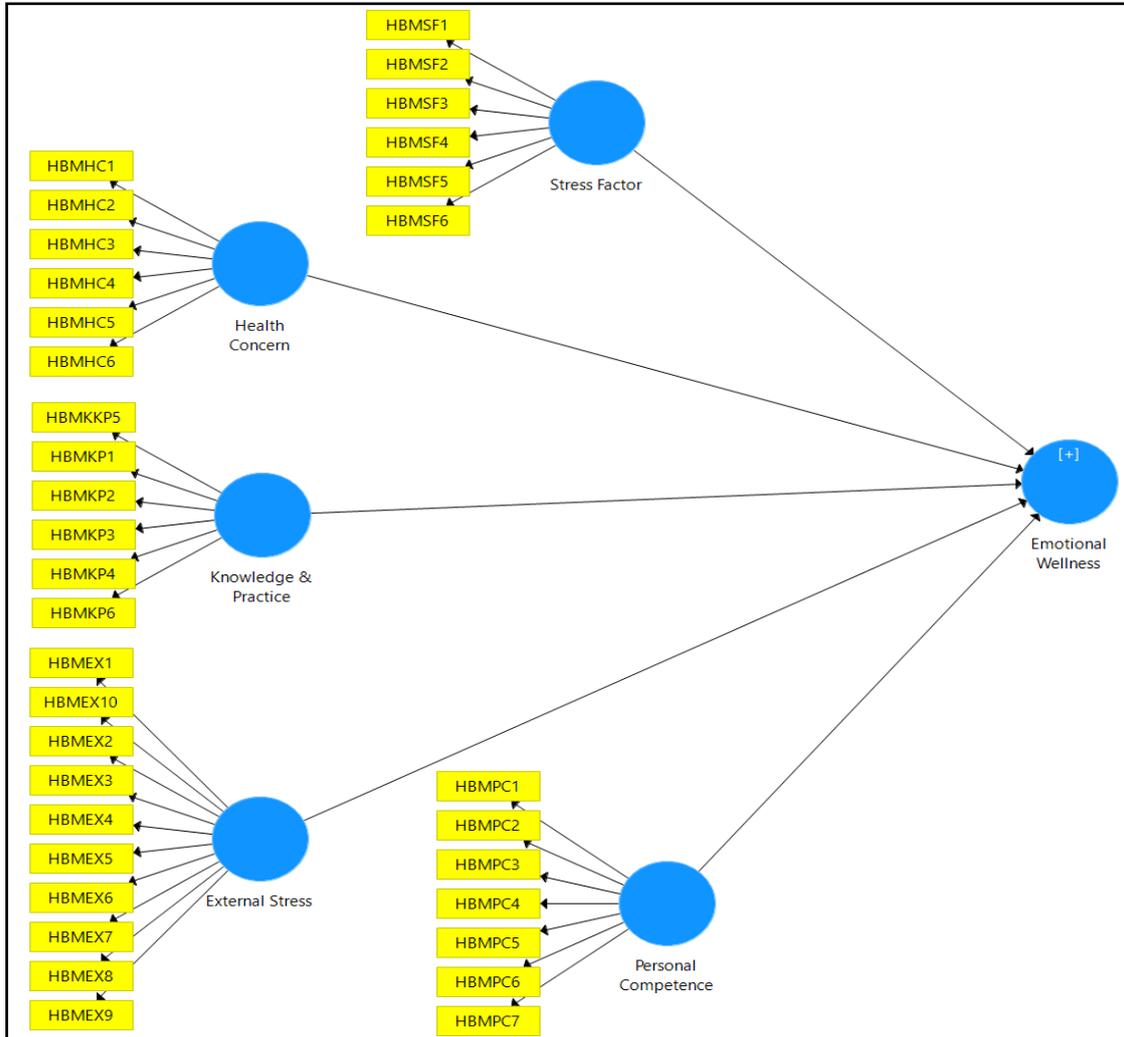


Figure 2: The Measurement Model

Findings

Respondent Profile

This study included 40 respondents from Malaysian HEIs, both private and public. There were 21 males and 19 females all together. In terms of age, the majority of the respondents were 21 years old. As for religion, 32 respondents were Muslims, 3 respondents were Buddhists, 1 respondent were Christians, and 4 respondents were Hindus. All respondents took various courses like pure science (5 respondents), applied science (3 respondents), technology and engineering (8 respondents), art and applied arts (2 respondents), and social science (22 respondents).

Measurement Model

The measuring model was tested by looking at its consistency, reliability, and content validity, as proposed by Hair, Matthews, Matthews, and Sarstedt (2017). Loadings of 0.4, 0.5, and 0.6

can be approved if they result in an Average Variance Extracted (AVE) of greater than 0.5, according to Hair et al. (2017). Overall, four items were removed from scale measurement - one item from perceived severity, one items from perceived barriers, one item from self-efficacy and one item from emotional wellness. As present in Table 3 below, the convergence criteria was reached. This means the indicator reliability was confirmed. Next, to quantify construct internal consistency in PLS, the composite reliability (CR) value should be higher than 0.7 thresholds (Khuong & Linh, 2020). CR values above 0.95 are undesirable as this may indicate that respondents have redundancy in their answers (Hair et al., 2017; Porto, 2019). AVE values, on the other hand, should be greater than 0.50, indicating that the dimension accounts for more than half of the variance in its indicators on average (Porto, 2019). As shown in Table 3 below, all values for CR and AVE exceed the recommended threshold value.

Table 3: Reliability and Validity

Construct	Item	Loading	CR	AVE
Perceived Susceptibility (Stress Factor)	HBMSF1	0.66	0.805	0.543
	HBMSF2	0.84		
	HBMSF3	0.85		
	HBMSF4	0.68		
	HBMSF5	0.74		
	HBMSF6	0.74		
Perceived Severity (Health Concern)	HBMHC1	Deleted	0.658	0.531
	HBMHC2	0.77		
	HBMHC3	0.54		
	HBMHC4	0.91		
	HBMHC5	0.95		
	HBMHC6	0.67		
Perceived Benefits (Knowledge & Practice)	HBMKP1	0.80	0.923	0.669
	HBMKP2	0.90		
	HBMKP3	0.69		
	HBMKP4	0.80		
	HBMKP5	0.87		
	HBMKP6	0.83		
Perceived Barriers (External Stress)	HBMEEX1	0.56	0.805	0.543
	HBMEEX2	0.63		
	HBMEEX3	0.44		
	HBMEEX4	0.66		
	HBMEEX5	0.53		
	HBMEEX6	0.77		
	HBMEEX7	0.72		
	HBMEEX8	deleted		
	HBMEEX9	0.74		
	HBMEEX10	0.44		
Self- efficacy (Personal Competence)	HBMPC1	deleted	0.891	0.544
	HBMPC2	0.70		
	HBMPC3	0.83		
	HBMPC4	0.83		

	HBMPC5	0.65		
	HBMPC6	0.73		
	HBMPC7	0.80		
Emotional Wellness	EW1	0.56	0.711	0.283
	EW2	0.63		
	EW3	0.44		
	EW4	0.67		
	EW5	0.54		
	EW6	0.77		
	EW7	0.72		
	EW8	deleted		
	EW9	0.74		
	EW10	0.44		

Note: Item remove due to loading less than 0.4; HBMCH1 (-0.02), HBME8 (-0.17), HBMP1 (0.39), and EW8 (-0.17)

Discriminant validity in this study was performed using the Heterotrait-Monotrait ratio of correlations (HTMT) criteria. It is recommended that HTMT values should ideally be below 0.85 (Henseler, Ringle, & Sarstedt, 2015). As shown in Table 4 below, all values were less than 0.85, verifying that there is validity discrimination according to this criterion.

Table 4: HTMT – Discriminant Validity

	Emotional Wellness	External Stress	Health Concern	Knowledge & Practice	Personal Competence	Stress Factor
Emotional Wellness						
External Stress	0.76					
Health Concern	0.32	0.34				
Knowledge & Practice	0.51	0.51	0.18			
Personal Competence	0.60	0.60	0.23	0.66		
Stress Factor	0.50	0.34	0.21	0.21	0.24	

The “Original Sample (O)” column in Table 5 below shows the original HTMT values for each combination of dimensions. The average values of the 500 HTMT subsamples obtained using the bootstrap method are displayed in the “Average Sample (A)” column. The upper limit of the confidence interval is shown in the UL 97.5 percent column. The values of the upper HTMT limit were found to be below 1.0, indicating discriminant validity according to (Henseler et al., 2015). The values of the model dimensions do not correlate with other dimensions, and so, it is assumed that the model may differ.

Table 5: Confidence Interval for HTMT for 500 Subsamples

	Original Sample (O)	Average Sample (A)	Confidence Interval (CI)	
			IL 2.50%	UL 97.50%
External Stress -> Emotional Wellness	-0.546	-0.452	-0.859	0.676
Health Concern -> Emotional Wellness	-0.004	0.005	-0.281	0.262
Knowledge & Practice -> Emotional Wellness	0.013	0.035	-0.295	0.433
Personal Competence -> Emotional Wellness	0.159	0.154	-0.226	0.52
Stress Factor -> Emotional Wellness	-0.282	-0.154	-0.523	0.382

Discussion and Conclusion

It is undeniable that the ongoing pandemic has made a huge impact on graduates' education and opportunities, as well as the emotional and physical health of a large number of graduates. Graduates who are having mental health challenges are less likely to complete and/or pass a course or module, are more likely to drop out of university, and are less likely to achieve higher academic marks than other graduates (Mojtabai & Jorm, 2015; Richardson et al., 2015). As present in the findings section of this study, the results indicate that the factor loading, composite reliability, average variance extracted and the convergent validity of the instruments were valid and reliable as they follow the recommended value (Hair, Risher, Sarstedt, & Ringle, 2019).

Additionally, the discriminant validity of items, which is the degree to which items differentiate between sub-constructs, was determined and reported. This study's statistical results indicate the validity of the constructs studied, which include perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and self-efficacy, as extremely important and significant aspects that contribute to graduate emotional wellness. This finding could contribute to the growing body of literature on emotional wellness, which is now focusing on recent graduates. It is also supported by earlier findings that the HBM model may be applied in a variety of circumstances (Deb, Strodl, & Sun, 2015; Guilford, 2011; Musemwa, 2011; Salina, Wan Noordiana, Wan Mohammad Taufik, Nurul Nadiah, & Siti Norhidayah, 2020; Verma et al., 2002).

Theoretical, Practical and Social Implications

To conclude, this study sheds some light on the graduate emotional wellness. The outcome of this study gives several impacts to the management, academic, counsellors, and other entities which include Students' Representative Council. The model used in this study is reliable for testing the graduate emotional wellness at Malaysian HEIs and the findings can assist in improving the services and in upgrading the necessary facilities. The findings could also facilitate the graduates in coping with the transformation of education landscape that might enhance the graduates' emotional wellness.

Limitations and Suggestions for Future Research

Despite the contributions, this study has its limitation as well. This study involved a small number of samples, which means that the result narrowly contextualises in implication. Thus, a deeper discussion involving a larger number of samples is suggested for future research.

Other than that, a comparative study could also be conducted to identify graduate emotional wellness between different programmes, and between public and private HEIs in Malaysia.

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References

- Abraham, C., & Sheeran, P. (2005). The Health Belief Model. Predicting Health Behaviour: Research and Practice with Social Cognition Models. Eds M. Conner, P. Norman. Maidenhead. In: Open University Press.
- Afthanorhan, W. (2013). A comparison of partial least square structural equation modeling (PLS-SEM) and covariance based structural equation modeling (CB-SEM) for confirmatory factor analysis. *International Journal of Engineering Science and Innovative Technology*, 2(5), 198-205.
- Amanda, G., Garcia, W., Lauren, M., & Nadine, J. (2014). Mental health status and suicide behavior among graduate students. *Academic Psychiatry*, 38, 554-560.
- Aris, A. (2016). *Predicting self-care practices and glycaemic control using health belief model (HBM) in patients with insulin-treated diabetes in Malaysia*. University of Nottingham.
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.
- Bernstein, E. E., LeBlanc, N. J., Bentley, K. H., Barreira, P. J., & McNally, R. J. (2021). A single-session workshop to enhance emotional awareness and emotion regulation for graduate students: A pilot study. *Cognitive and Behavioral Practice*, 28(3), 393-409.
- Champion, V. L., & Skinner, C. S. (2008). The health belief model. *Health behavior and health education: Theory, research, and practice*, 4, 45-65.
- Deb, Strodl, & Sun. (2015). Academic stress, parental pressure, anxiety and mental health among Indian high school students. *International Journal of Psychology and Behavioral Sciences*, 5(1), 26-34.
- Di Pierro, M. (2017). Mental health and the graduate student experience. *The Journal for Quality and Participation*, 40(1), 24.
- Firth-Cozens, J. (2001). Medical student stress. *Medical education*, 35(1), 6-7.
- Foster, L. T., Keller, C. P., & Boomer, J. (2007). Defining wellness and its determinants. *British Columbia atlas*.
- Glanz, K., Rimer, B. K., & Viswanath, K. (2008). *Health behavior and health education: theory, research, and practice*: John Wiley & Sons.
- Green, E. C., Murphy, E. M., & Gryboski, K. (2020). The health belief model. *The Wiley Encyclopedia of Health Psychology*, 211-214.
- Guilford, K. (2011). *Breast cancer knowledge, beliefs, and screening behaviors of college women: utilisation of the health belief model*: The University of Alabama.
- Habib, S., Riaz, M. N., & Akram, M. (2012). Emotional intelligence as predictor of life satisfaction among nurses: Mediating role of spiritual wellness. *FWU Journal of Social Sciences*, 6(1), 73.
- Hair, Matthews, L., Matthews, R., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123.
- Hair, Risher, Sarstedt, & Ringle. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*.

- Henseler, Ringle, & Sarstedt. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Hill, N. R. (2004). The challenges experienced by pretenured faculty members in counselor education: A wellness perspective. *Counselor Education and Supervision*, 44(2), 135-146.
- Hyun, J. K., Quinn, B. C., Madon, T., & Lustig, S. (2006). Graduate student mental health: Needs assessment and utilisation of counseling services. *Journal of College Student Development*, 47(3), 247-266.
- Khuong, M., & Linh, U. (2020). Influence of work-related stress on employee motivation, job satisfaction and employee loyalty in hospitality industry. *Management Science Letters*, 10(14), 3279-3290.
- Kim, S., & Kim, S. (2020). Analysis of the impact of health beliefs and resource factors on preventive behaviors against the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 17(22), 8666.
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (ijec)*, 11(4), 1-10.
- Kock, N., & Lynn, G. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, 13(7).
- Laranjo, L. (2016). Social media and health behavior change. In *Participatory Health through Social Media* (pp. 83-111): Elsevier.
- Lawson, G., Venart, E., Hazler, R. J., & Kottler, J. A. (2007). Toward a culture of counselor wellness. *The Journal of Humanistic Counseling, Education and Development*, 46(1), 5-19.
- Levecque, K., Anseel, F., De Beuckelaer, A., Van der Heyden, J., & Gisle, L. (2017). Work organisation and mental health problems in PhD students. *Research policy*, 46(4), 868-879.
- Louis II, J. P. (2016). *Examining constructs of the health belief model as predictors of Haitian men's intention regarding prostate cancer screening*. Barry University.
- Mojtabai, R., & Jorm, A. F. (2015). Trends in psychological distress, depressive episodes and mental health treatment-seeking in the United States: 2001–2012. *Journal of affective disorders*, 174, 556-561.
- Musemwa, S. (2011). *Factors Influencing University Students' use of HIV Voluntary Counselling and Testing Services: An Analysis Using the Health Belief Model*.
- Nasir, E. F., & Almahdi, H. A. (2020). Study of the Sudanese perceptions of COVID-19: Applying the Health Belief Model. *medRxiv*.
- Orji, R., Vassileva, J., & Mandryk, R. (2012). Towards an effective health interventions design: an extension of the health belief model. *Online journal of public health informatics*, 4(3).
- Owen, T. R. (1999). The reliability and validity of a wellness inventory. *American Journal of Health Promotion*, 13(3), 180-182.
- Papadopoulou, K., Tsermidou, L., Dimitrakaki, C., Agapidaki, E., Oikonomidou, D., Petanidou, D., . . . Giannakopoulos, G. (2014). A qualitative study of early childhood educators' beliefs and practices regarding children's socioemotional development. *Early Child Development and Care*, 184(12), 1843-1860.
- Park, D.-Y. (2011). Utilising the Health Belief Model to predicting female middle school students' behavioral intention of weight reduction by weight status. *Nutrition research and practice*, 5(4), 337-348.

- Porto, A. (2019). *Áreas da vida no trabalho como preditoras da síndrome de burnout: tradução, adaptação transcultural e validação do modelo AWS-MBIGS*. Universidade Federal de Santa Maria,
- Rehman, R., Habib, M., & Fatima, S. S. (2014). A take on social wellbeing attributes by first year medical students. *Journal of Pakistan Medical Association*, 64(6), 679.
- Rehman, R., Nadeem, S., Hussain, M., Khan, R., & Katpar, S. (2015). Exploring emotional wellness: The art of being cheerful about life at medical campus. *European Journal of Psychology and Educational Studies*, 2(2), 57.
- Richardson, R., Trépel, D., Perry, A., Ali, S., Duffy, S., Gabe, R., . . . Manea, L. (2015). Screening for psychological and mental health difficulties in young people who offend: a systematic review and decision model. *Health Technology Assessment (Winchester, England)*, 19(1), 1-128.
- Rummell, C. M. (2015). An exploratory study of psychology graduate student workload, health, and program satisfaction. *Professional Psychology: Research and Practice*, 46(6), 391.
- Salina, D., Wan Noordiana, W. H., Wan Mohammad Taufik, W. A., Nurul Nadiah, A., & Siti Norhidayah, T. (2020). Applying Health Belief Model in Assessing Malaysian Graduate's Emotional Wellness Post COVID 19 Outbreak: A Conceptual Paper. *Global Business & Management Research*, 12(4).
- Smith, H. L., Robinson III, E. M., & Young, M. E. (2007). The relationship among wellness, psychological distress, and social desirability of entering master's-level counselor trainees. *Counselor Education and Supervision*, 47(2), 96-109.
- Thimmapuram, J., Pargament, R., Sibliss, K., Grim, R., Risques, R., & Toorens, E. (2017). Effect of mindfulness meditation on burnout, emotional wellness, and telomere length in health care professionals. *Journal of community hospital internal medicine perspectives*, 7(1), 21-27.
- Troop, D. (2011). Paranoid? You must be a grad student. *The Chronicle of Higher Education*.
- Verma, S., Sharma, D., & Larson, R. W. (2002). School stress in India: Effects on time and daily emotions. *International Journal of Behavioral Development*, 26(6), 500-508.
- Zare, M., Ghodsbini, F., Jahanbin, I., Ariaifar, A., Keshavarzi, S., & Izadi, T. (2016). The effect of health belief model-based education on knowledge and prostate cancer screening behaviors: a randomised controlled trial. *International Journal of Community Based Nursing and Midwifery*, 4(1), 57.
- Zhang, J., Zhao, S., Lester, D., & Zhou, C. (2014). Life satisfaction and its correlates among college students in China: A test of social reference theory. *Asian Journal of Psychiatry*, 10, 17-20.