

Emotional Intelligence, Spiritual Intelligence, Self-Efficacy and Health Behaviors: Implications for Quality Health

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Abstract

University students typically enter a dynamic transitional period of new independence from their parents that is characterized by many factors. These factors which involve social, financial, and environment elements, can be a burden to the students putting them at risk in negative health behaviours. Negative health behaviours among university students are a course of concern since they have a tendency to be carried into adulthood which can possibly cause the emergence of chronic disease at a younger age. Emotional intelligence, spiritual intelligence together with self-efficacy are seen to promote better health behaviour. Therefore, the purpose of the study was to investigate the relationship between emotional intelligence, spiritual intelligence and self-efficacy on health behaviours among university students in Universiti Putra Malaysia, Malaysia. A correlational study was conducted on 400 undergraduate university students who lived on campus and were chosen through stratified random sampling technique using closed ended questionnaires (Schutte's Self Report Emotional Intelligence, The Spiritual Self-Report Inventory, General Self Efficacy Scale and a modified version of Health Style Questionnaire). Pearson correlation and structural equation modelling were used to explore association between these aspects. Emotional intelligence, spiritual intelligence, self-efficacy and health behaviour were significantly correlated. Emotional intelligence and self-efficacy showed a partial mediation effect towards the relationship between spiritual intelligence and promoting health behaviour ($p=0.0001$). Thus, there was an association between spiritual intelligence with health behaviour, emotional intelligence with health behaviour, and self-efficacy with health behaviour. It is interpreted that spiritual intelligence can boost positive health behaviour and it is associated with emotional intelligence and self-efficacy relevantly gives benefit to health behaviour. Such data have important implications for both health practice and policy especially for higher education institutions.

Introduction

Health behavior has been recognized as an important determinant of health status (Wang, Xing & Wu, 2012). It has been stated that 60% of a person's health status is dependent on one's health behavior or lifestyle (WHO, 2004). Many studies have proposed that healthy behaviors reduce morbidity and mortality rates (Hu et al., 2011; Reddy et al., 2012). Moreover, healthy living habits or behavior that is portrayed in the early childhood or youth would be adopted later in the adulthood (Lansberg et al., 2010). Even though, bad habits such as unhealthy behaviors are hard to changed, however, if the detection is done early in the schooling years till early adulthood, it is still possible to have the habits or behaviors changed (Epton et al., 2013; Friedman et al., 2008). Thus, youth and school children should be educated about the importance of health lifestyle and behaviors (Roxana et al., 2014; Phongsavan et al., 2005) so that a healthy and responsible generation can be produced.

Health risk behaviors are detrimental actions that increases rate of morbidity and mortality (Shin & Kang, 2013; Spring et al., 2012). At least five categories of behaviors have been consistently found to correlate with high morbidity and mortality, which are; (1) consuming high calorie diet, high fat, high sodium and low in nutrients (Pokhrel et al., 2013; Mente et al., 2009), (2) inactive physically and sedentary (Roxana et al., 2013; Fogelholm, 2010), (3) cigarette smoking (Khan et al., 2015; Caldeira et al., 2012), (4) substance abuse such as consuming alcohol and drugs (Guerra de Andrade et al., 2012; Quinn & Fromme, 2011) and (5) risky sexual behaviors engagement (Poscia et al., 2015; Caico, 2014). Conversely, health promoting or protective behaviours are linked with actions that reduce disease susceptibility and facilitate health restoration (Spring et al., 2012) which are (1) physically active (Deliens et al., 2015), (2) eating fruits and vegetables (Plotnikoff et al., 2015) and (3) adherent with prescribed medication (Rickles et al., 2012)

University students represent a vast component of the youth population (Wang, Xing & Wu, 2013) where most faced a new environment of freedom or independence from their parents (Pullman et al, 2009). They are navigators in the difficult waters that separate adolescence from adulthood as they start to take more responsibility for their daily lives and develop life skills that are vital as any academic coursework. Hence, health promoting behaviors such as proper nutrition or dietary practices, and physical activities are important to combat multiple stressors that will be part of the students' lives in the campus (Roxana et al., 2014).

Emotional intelligence (EI) is known to have a variety of positive effects on the functioning of human beings and also has been recognized as the main factor that can maintain and improve human positive health behavior (Roxana Dev, et al., 2014). According to Li, Lu, & Wang (2009), good emotion handling is a motivating factor for most human behavior. In other words, the ability to verify various forms of emotion in conjunction with thinking process, and use of this ability to manage personal growth is defined as emotional intelligence (Mayer, Salovey, Caruso, & Sitarenios, 2001). Li et al. (2009) showed that EI was one of the psychological mechanisms that were responsible for positive changing behavior that associated with physical activity participation which was also seen in a Malaysian study (Roxana Dev et al., 2012).

Spiritual intelligence (SI) is an ability that portrays the true meaning in various issues of life, namely the ability to deploy behavior and one's life in a more meaningful context for oneself and also others (Zohar & Marshall, 2000). In other words, SI is related to the belief of contact

with the creator (Hablum minallah) and also the means of the highest intelligence (Zohar & Marshall, 2000). A high capacity of SI can improve well-being in which one can deal with stress efficiently and orderly (Koshravi & Nikmanesh, 2014; Santrock, 2002). Moreover, researches from Moalemi (2015) and Cotton et al. (2005) found that students who have high SI were less risky in getting mental disorders such as depression and practice negative health behaviors such as smoking and drinking. Thus, SI should also be given the same attention to curb negative health behaviors among university students.

Self-efficacy refers to a person's belief in his/her ability to organize and execute a required course of action to achieve a desired result (Bandura, 1997). Self-efficacy has been found to be related to academic achievement, behaviors and attitudes (Faulkner & Reeves, 2009; Chatzisarantis & Biddle, 2001; Boorooah & Kotoki, 2017; Salami, 2010; Salami & Ogundokun, 2009). It is expected that self-efficacy will be related to students' health behaviors. However, there is scarcity of research that examined the self-efficacy of college students in relation to their health behaviors. Self-efficacy determines an individual's resiliency to adversity and his/her vulnerability to stress (Bandura, Caprara, Barbaranelli, Gerbino & Pastorelli, 2003). General self-efficacy aims at a broad and stable sense of personal competence to deal effectively with a variety of stressful situations (Adeyemo, 2008; Schwarzer & Fuchs, 2009). Perhaps for an individual who has low emotional intelligence, having high self-efficacy will help him/her in displaying appropriate health behaviors. Therefore, it is expected that self-efficacy will moderate the relationship of emotional and spiritual intelligence with students' health behaviors. Hence, with the combination of these various past studies, this study aims to investigate the relationship of emotional intelligence, spiritual intelligence and self-efficacy on health behaviors. Besides that, the influence of self-efficacy (SE) as the mediator between emotional and spiritual intelligence (EI) on health behaviors (HB) among university students in a public university in Malaysia is also investigated.

There are various theories that apply to health behaviour. Few insist on the cognitive/affective proximal factors such as attitudes, norms beliefs, self-efficacy and intent (Ajzen, 1991; Fishbein and Ajzen, 1975). Meanwhile, few uses the theory that focuses on the ultimate factor or the cause/causes such as the environment (Biglan, 2004), social (Magnusson, 1981), and biological (Frankenhaeuser & Marianne, 1991) or personality (Digman, 1990; Zuckerman et. al., 1990). Others use the theory that focus on more distal factors such as social support and interpersonal, relationship connection process (Elliott, et. al., 1985; Oetting and Beauvais, 1986) or the theory that leverage social learning process factors (Akers, Krohn, Lanza-Kaduce, & Radosevich, 1979; Bandura, 1977). The use of the above theories are suitable for studies in investigating single influential factors, which are proximal, distal or ultimate factors but not a combination of two or three factors (Flay, Snyder, & Petraitis, 2009). Thus, there is a gap in previous studies for not using a comprehensive theory to understand the wholeness factors in health behaviour.

In addition, most of the previous studies did not use a comprehensive theoretical framework in health behaviour as it should be reviewed (Plotnikoff et al., 2009; Sanchez et al., 2007). Mostly using the theory of Health Belief Model (Becker, 1974), Theory of Reasoned Action (Ajzen & Fishbein, 1980) and Theory of Planned Behaviour (Ajzen, 1991) which is a theory that is suitable for specific health behaviours, not comprehensive. This is critical because the identification of factors that influence a variety of health behaviours should be made based

on a theory that could include a variety of health behaviours (Noar et al., 2008). Thus, questions need to be answered through theories such as "why individuals engage in regular physical activity, a balanced diet and not smoking while some are not? but most can only answer "Why does he smoke? Hence, these questions cannot be answered inclusively for multiple health behaviours. Thus, the Theory of Triadic Influence (Flay & Petraitis, 2010; Flay & Petraitis, 1994) which is a comprehensive theory-based on ultimate influence, distal and proximal was used.

Methodology

This study is a quantitative correlational research. Pen and pencil, self-assessed survey questionnaires were the main data collection method. Participants were recruited from 16 dormitories of a Malaysian public university. 400 students participated by using proportionate stratified random sampling technique. There were four main instruments used in the study which were The Assessing Emotions Scale (TAES), Spiritual Self-Report Inventory (SISRI), General Self Efficacy Scale (GSES) and Health Behaviour Questionnaire (HBQ) (a modified version of Health Style Questionnaire).

The Assessing Emotions Scale (TAES), developed by Schutte, Malouff and Bhullar (2009) was used to measure four facets of emotional quotient (Salovey & Mayer, 1990) which are; 1) perception of emotion, 2) managing own emotions, 3) managing others' emotion, and 4) utilization of emotion. TAES comprised of 33-items using a 5-point Likert scale that based on four dimensions of emotional intelligence (EI) which are perceive emotions, utilizing emotions, regulating emotions and managing emotions. The scale ranges from 1=strongly disagree, 2=disagree, 3=somewhat agree, 4=agree, and 5= strongly agree. The Cronbach alpha reported by Schutte et al. (2009) was .90 while this study attain .88.

The Spiritual Self-Report Inventory (SISRI) was adopted that was developed by King and DeCicco (2009) that assessed spiritual intelligence based on four subscales which are critical existential thinking (CET; 7 items), personal meaning production (PMP; 5 items), transcendental awareness (TA; 7 items), and conscious state expansion (CSE; 5 items). The 24 items with 5-point Likert scale ranges from 0=not at all true of me, 1=not very true of me, 2=somewhat true of me, 3=very true of me, and 4 = completely true of me. The Cronbach alpha reported by King (2008) was 0.95 while this study attain 0.91.

Generalized Self-Efficacy Scale (GSES) was developed by Schwarzer and Jerusalem (1995). The GSES is a 10-item scale that assessed self-efficacy based on personality disposition. It is measured on a 4-point Likert scale ranging from 1= Not at all true to 4= Exactly true. The Cronbach's alpha coefficient of GSES range from .75 to .90 for many studies. This study was at 0.88.

Lastly, Health Behaviour Questionnaire (HBQ) was adapted from Lifestyle Self-Test, Department of Health and Human Services, U.S. Public Service. There are 32-items with six constructs which are: 1) smoking, 2) nutrition/eating habits, 3) physical activity, 4) alcohol and drugs, 5) stress management and safety, which had been evaluated with 5-point Likert scale ranging from 0=almost never, 1=rarely, 2=sometimes, 4=often, and 5=almost always. This study gained Cronbach alpha of .91 which fall in an acceptable range, while many previous studies has reported reliability range in between .78 to .95.

The participants administered the questionnaires which consisted of the measures described above in their college. Informed consents of the students and the college authorities were obtained. The questionnaires were prepared in English and Bahasa Malaysia (BM). The BM version was translated to English with the help of language experts from Faculty of Educational Studies, Universiti Putra Malaysia. The translated version was then compared with the original version to ensure validity of the instrument. The internal consistency reliability test was performed on the four of the constructs using Cronbach's alpha values and was at the necessary values of more than 0.7 as stated above. Furthermore, validity test was performed using confirmatory factor analysis (CFA). From the CFA, all constructs were in the recommended values except for health behavior. However, the values are accepted since the measurement model fits. Values are given in Table 1. The convergent and discriminant validities were checked using guidelines prescribed by Hair et al. (2010) where: (1) construct reliability (CR) of all constructs was >0.7 , (2) average variance extracted (AVE) of all constructs was >0.5 and (3) AVE of each construct was greater than the squared correlation of other constructs.

Of the 400 questionnaires, 400 were returned and all were properly filled and were used for data analysis. The data was collected within six weeks and the questionnaires were completed anonymously with some additional information regarding gender, age, races, department, and current year of study. IBM Statistical Package for Social Science Statistics (version 20.0) and IBM Statistical Package for Social Science Amos (version 22.0) were used for data analysis. Correlation analysis between EI, SI, SE and HB, the mediating effect of EI and SE towards the relationship between SI and HB was also analyzed using structural equation modeling (SEM) in AMOS.

Table 1

Results of Reliability and Confirmatory Factor Analysis (CFA)

	No. of items/dimensions	of Cronbach's alpha (n=400)	Validity (CFA)*
Spiritual Intelligence	24/4	0.90	Relative Chi-square=5.0, RMSEA=.10, GFI=.99, CFI=.99, NFI, .99
Emotional Intelligence	33/4	0.88	Relative Chi-square=1.4, RMSEA=.03, GFI=.99, CFI=.99, NFI, .99
Self-Efficacy	10/1	0.87	Relative Chi-square=3.6, RMSEA=.08, GFI=.95, CFI=.95, NFI, .94
Health Behaviour	34/6	0.91	Relative Chi-square=19, RMSEA=.21, GFI=.95, CFI=.93, NFI, .93

Relative Chi-square value (must be <5.0); RMSEA, root mean square approximation (must be <0.08); GFI, goodness of fit index (must be >0.9); NFI, normed fit index (must be >0.9); CFI, comparative fit index (must be >0.9). *CFA was performed using AMOS 22 version. Analysis was performed at the construct-dimension level.

Research Findings

Based on the mean value of the constructs, characteristics of the university students in Universti Putra Malaysia that reside in the dormitory are: majority are Malays 88.6%, while

Chinese are 4.7%, Indians about 2.6% and others at 4.1%. Mean age is 21.3 years, with males at 50.1% and females at 49.9%.

Relationship between Spiritual Intelligence, Emotional Intelligence, Self-Efficacy and Health Behavior

Correlation analysis was used to attain the relationship between variables. Based on Table 2, all the variables are positively correlated. Spiritual intelligence significantly correlated with emotional intelligence at $r=.564$, $p=.000$, self-efficacy at $r=.442$, $p=.000$ and health behavior at $r=.363$, $p=.000$. Emotional intelligence significantly correlate with self-efficacy at $r = .398$, $p = .000$. and health behavior at $r = .354$, $p = .000$. Self-efficacy also significantly correlated with health behavior at $r = .395$, $p = .000$. Therefore, these three variables are suited to be tested in mediation model. Besides that, descriptive statistics such as mean and standard deviation of constructs were also given in Table 2.

Table 2

Mean, Standard Deviations and Correlation between Spiritual Intelligence, Emotional Intelligence, Self-Efficacy and Health Behavior

Variable	Mean	SD	SI	EI	SE	HB	CR	AVE
SI	2.73	.500	1.0	.564**	.442**	.363**	.92	.75
EI	3.67	.41	.564**	1.0	.398**	.354**	.88	.65
SE	3.10	.49	.442**	.398**	1.0	.395**	.89	.50
HB	2.87	.46	.363**	.354**	.395**	1.0	.80	.50

EI, emotional intelligence; SI, spiritual intelligence; SE, self-efficacy; HB, health behavior; CR, critical reliability (>.7); AVE, average variance extracted (>.5)

**Significant at $p < .000$ (2-tailed);

Mediating Effect of Emotional Intelligence and Self-Efficacy toward the Relationship between Spiritual Intelligence and Health Behaviour

Table 3 shows the direct and mediator effect between various constructs. The significant relationships between the (with regression weights) are also shown in Figure 1. Figure 1 also showed the revised structural model with significant and non-significant paths. Besides that, the values of coefficient of determination R^2 for all three endogenous variables (EI, SE and HB). The outcomes of estimation revealed that the predictors of SE (which are SI and EI) could explain 23.4% meanwhile predictor SI could explain 62.9 % of variance of EI. The result of the estimation revealed that predictors of HB (SI, and SE) could explain 29.5 % of its variance. The main contribution was SE ($\beta=.454$, $p<0.000$) followed by SI ($\beta=.453$, $p<0.000$). Among the predictors of HB, SI and SE had direct effect on HB. Meanwhile, EI indirectly influenced HB via SE. As a whole, the proposed model explained 29.5 % of variance in HB among university students of UPM.

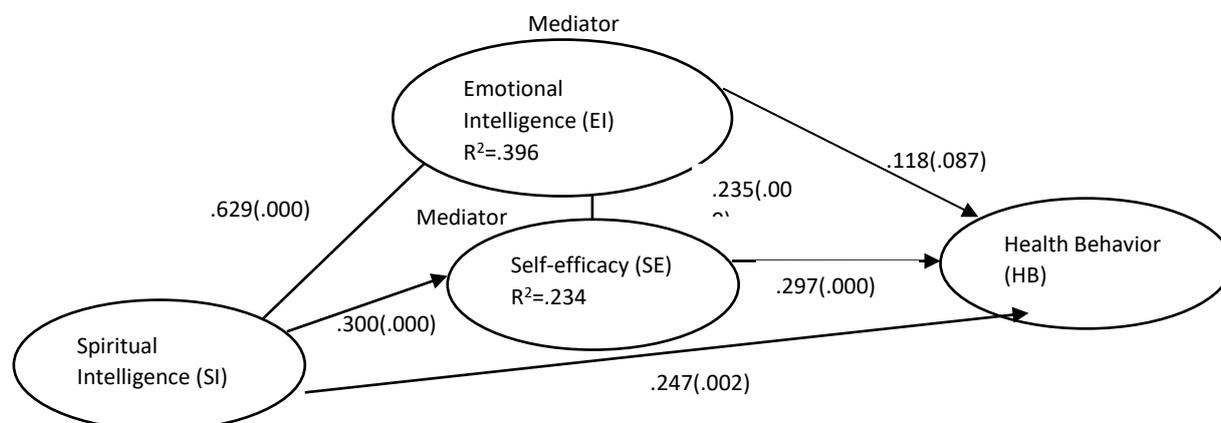


Figure 1 Factors affecting health behavior of university students. All relationships are significant except for EI-HB. Structural model run at the construct level with model fit indices: Relative $\chi^2 = 2.12$ (< 5.0 ; $p = .000$), RMSEA = .053 ($< .08$), CFI = .95 ($> .9$), GFI = .92 ($> .9$), NFI = .92 ($> .9$); analysis with SPSS AMOS, 22.

The role of EI and SE as a mediator between SI and HB was firstly investigated. As Table 3 indicates, the direct model (linking from SI to HB) was significant ($\beta = .453$, $p = .000$). In the full mediation model, the direct effect linking from SI to HB was also significant ($\beta = .247$, $p = .002$). Moreover, the standard indirect effect (SIE) of SI on HB was also significant ($\beta = .207$, $p = .000$). As in the Table 3, in the SIE, zero is outside the range of Lower Bounds and Upper Bounds. Therefore, based on this decision, EI and SE partially mediate the influence of SI on HB.

The role of SE as a mediator between EI and HB was also investigated. As Table 3 indicates, the direct model (linking from EI to HB) was significant ($\beta = .395$, $p = .000$). In the full mediation model however, the direct effect linking from EI to HB was not significant ($\beta = .118$, $p = .087$) but the standard indirect effect (SIE) of EI on HB was significant ($\beta = .070$, $p = .005$). As in the Table 3, in the SIE, zero is outside the range of Lower Bounds and Upper Bounds. Therefore, based on this decision, SE mediate fully on the influence of EI to HB.

Last but not least, the role of EI as a mediator between SI and SE was investigated as well. As Table 3 indicates the direct model (linking from SI to SE) was significant at $\beta = .448$, $p = .000$. In the full mediation model the direct effect linking from SI to SE was significant ($\beta = .300$, $p = .000$) and the standard indirect effect (SIE) of SI to SE was also significant ($\beta = .148$, $p = .006$). Since, zero is outside the range of Lower Bounds and Upper Bounds of the SIE, hence EI partially mediates the influence of SI on SE.

Table 3

Direct and mediation model through Bootstrap Analysis

Hypothesized Path	B	β (beta)	p	95% CI Bootstrap BC	
				LB	UP
Direct Model					
SI→HB	.349	.453	.000		
EI→HB	.391	.395	.000		
SE→HB	.454	.454	.000		
SI→SE	.339	.448	.000		
EI→SE	.420	.425	.000		
SI→EI	.483	.629	.000		
Mediation Model					
SI → HB	.192	.247	.002		
Std. Indirect Effect (SIE)	.160	.207	.000	.127	.299
EI→HB	.119	.118	.087		
Std. Indirect Effect (SIE)	.070	.070	.005	.031	.121
SI→SE	.230	.300	.000		
Std. Indirect Effect (SIE)	.113	.148	.006	.068	.231

Note: SI, spiritual intelligence; EI, emotional intelligence; SE, self-efficacy; HB, health behavior

Discussion

The primary aim of this study was to investigate the relationship of emotional intelligence, self-efficacy and self-efficacy with health behaviors. It was found that the independent variables significantly predicted the students' health behaviors. These findings support the work of previous researches who found that both cognitive variables (emotional intelligence and self-efficacy) and spiritual intelligence (cognitive, moral, emotional and interpersonal variables) influenced students' behavior specifically health behavior. First, SI has a strong correlation (positive relationship) with EI ($r=.564$, $p=.000$). The result of this study is consistent with the theoretical proposition that SI is a general factor of intelligence underlying any other factor of intelligence and therefore has the capability to influence EI (Ronel & Gan, 2008; Zohar & Marshall, 2000). Second, students with higher levels of SI tend to have higher levels of self-efficacy ($r=.442$, $p=.000$) and health behavior ($r=.363$, $p=.000$). SI through its four components enable students to have control in their actions and invest self to the ultimate goal or life target (King & DeCicco, 2009). Third, this study also found that there was a positive moderate correlation between emotional intelligence (EI) with health behavior (HB, $r=.354$, $p=.000$) This study was supported by Roxana et al. (2014) as it stated that high EI increases physical activity (an element of health behavior) and vice versa (Li, et al., 2011) Moreover, Syqit-Kowalkawska et al. (2015) showed that students who had higher EI demonstrated pro-health behavior such as abstinence of smoking and alcohol intake. Next, McPhie and Rawana (2015) stated that emotional intelligence assisted the adolescence to become more relax and conduct their daily lives with a purpose. In addition, Salami (2010) explained that emotional intelligence gave impact towards psychological and cognitive to give a feeling of relaxed, happy, enhance confidence and self-esteem. Hence, health behavior is also in aligned with the positive attitude, personality and high self-efficacy. This study showed that higher participation in EI decreased the negative aspects of psychological and in consequence with that increases health promoting behavior.

Fourth, it was also found that there was a significant positive moderate correlation between SE and health behavior ($r=.395$, $p=.000$). Association between SE and health behavior have been studied globally even though the numbers are still limited. However, this study indicated that there was an association between those variables. Some of the previous research supported the findings in this study. Zlatanovic (2015) found that there was a relationship between SE and health behavior by stating the effect of SE towards mood regulation and health behavior. Moreover, it was also supported by Li et al. (2009) as they found that higher level of SE will lead students to have more positive mood, optimistic attitude and lowering negative mood. Self-efficacy beliefs also influence a number of biological processes that, in turn, influence health and disease. Bandura (1986) has argued that perceived self-efficacy is a crucial determinant of health-related stress reaction, and this general relationship is supported by extensive empirical evidence. It is also found that people with high self-efficacy beliefs respond with more adaptive ways or forms of coping when an illness is experienced; for instance, higher self-efficacy is associated with greater ability to withstand pain, as well as with frequent and successful use the coping strategies directed to problem (instead of using the mechanism of escaping) (Trouillet et al., 2009). Hence, higher SE will in turn have better health behavior.

Fifth, this study also found that there was significant positive moderate relationship between EI and self-efficacy ($r=.398$, $p=.000$). There are a few previous researches supported the findings in this study. Gharetepeh et al. (2015) well supported this study's findings as EI has positively correlated with SE, where promote positive cues and reaction in life. While EI has negatively correlated with negative psychological well-being such as depression, stress and loneliness, and this was found in Loughheed and Hollenstein (2012) reported that low range of emotional regulation lowered the internalizing problems such as depression, anxiety and social anxiety because of low self-efficacy, in part of not having the capability of internalizing problems among university students.

Sixth, there was a significant full mediation effect of SE on the relationship between EI and health behavior (HB). Prior to the collection of data, researcher had reviewed in depth on the role of SE as the mediator for any relationship. Armum and Chellapan (2016) found the potential of SE as the mediator between EI and exercise behaviour. It was found that SE mediated the relationship between personality and exercise behaviour. This showed that SE has the capability to mediate a relationship with HB as variable, thus support the finding in this study where SE was correlated with EI. A partial mediating effect however was seen of SE on the relationship between SI and HB. Self-efficacy helps university students to conduct extraordinary tasks (Soleimani & Howeida, 2013). Thus, self-efficacy is one of the factors affecting good health behaviour that determines the extent to which the students spend their time on conducting their tasks, resist against the problems, and show reflexivity in various situations. In fact, self-efficacy is a critical factor in the success or failure in whole life (Bagheri et al., 2013). Students with low self-efficacy feel they fail to control the life events and therefore feel helpless and incapable of facing various problems and if their primary solutions are ineffective in dealing with the problems, they immediately lose control in their health behaviours (Fritzsche & Parrish, 2005). Bandura (1981) believes that a sense of self-efficacy can play an important role in a person's perspective on the objectives, tasks and challenges (Cain et al., 2008).

Besides that EI through its four components (perception of emotions, managing own emotion, managing others' emotion and utilization of emotion) (Ciarrochi et al., 2012) plays an important role in forging successful human relationships, and hence enables students to have control on their health behavior especially in stress management (Salami, 2010). This study argues that EI and self-efficacy as mediators enhance in health behaviour. The relationship between EI and self-efficacy was emphasized by Levy et al. (2010), who contended that higher levels of EI boost individuals' awareness of how different emotional reactions can result from causal explanations of health outcomes. Consequently, EI can help people generate the causal attributions that are least damaging to their self-efficacy beliefs by regulating the emotions these attributions might produce. For this reason, EI should have an impact on self-efficacy through its influence on the causal reasoning processes and emotions involved in reacting to important health behaviour outcomes.

As indicated earlier, a few researchers have pointed out SI as core ability, a general factor that penetrates into and guides other abilities (Kaur et al., 2013; Ronel & Gan, 2008). This study has clearly established this fact. Based on the results, key findings are: (1) SI influences EI, SE and HB, (2) EI influences SE, (3) SE influences HB. What are the implications of these findings? SI is fundamental to health behavior. SI centers on inner resources of a person, and it manifests in various ways such as positive self-concepts, higher moral character and personal transcendence (King & DeCicco, 2009). Therefore, spirituality is critical among university students as it was found that higher level of SI can promote healthy behavior. This means that high SI individuals did not only increase their spiritual health but also in health behavior. Hence, it is important for spirituality programs should be implemented in the higher institutions' curriculum. Furthermore, this study also found that SI was positively correlated with SE. Higher level of SI elevated SE score thus, having better skills in coping with stressors and likely to take problems that occur as a challenge to succeed. The large body of research on this kind of influence has shown that enhancing self-efficacy beliefs is crucial to the successful change and maintenance of various patterns or forms of health-related behaviours in the face of obstacles and aversive experiences, including the following practices: stress management (stress response and coping), addictive behaviors, reducing sexual risk behavior, AIDS-related health behaviour, smoking cessation, nutrition and weight control, adherence to medication requirements and suggested treatment or rehabilitation, regular physical exercise, healthy decision making and choices of healthy lifestyle, health-protective behavior, and disease detection behaviors such as breast self-examinations (Zlatovic, 2015).

There is a limitation of this study. The study was conducted in a public university in Selangor. Many public university were not included, hence, the results might not be completely generalizable. Besides that, even though the framework in this study has been validated in the context of Malaysia, the findings can be applied to any other country. Therefore, future research is required in different countries to validate the results.

In conclusion, this study has a few implications to the theory and practice of health behavior. First, the importance of role of SI in health behavior literature has been revealed. Second, this study has revealed the process by which SI affects the emotional intelligence and self-efficacy. Third, through this study, self-efficacy was determined as a valid and viable construct into health behavior literature. Fourth, EI was seen to affects self-efficacy and health behavior. Fifth, the importance of EI and SE as mediators between SI and HB. Sixth, this study

makes recommendations about the changes that are needed in the higher institution's curriculum in terms of implementing programs that uphold spirituality on university student's daily life.

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