

## FACTORS INFLUENCING HEALTH BEHAVIOURS AMONG UNIVERSITY STUDENTS

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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 younger age. Self-efficacy is seen to increase with students' emotional intelligence, together with better health behaviour. Therefore, the purpose of the study was to investigate the relationship between emotional intelligence and self-efficacy (mediator) on health behaviours among university students in Universiti Putra Malaysia, Malaysia. A correlational study was conducted on 400 undergraduates university students who lived on campus and were chosen through stratified random sampling technique using closed ended questionnaires (Schutte's Self Report Emotional Intelligence, General Self Efficacy Scale and a modified version of Health Style Questionnaire). Emotional intelligence, self-efficacy and health behaviour were significantly correlated at  $p < .05$ . Thus, there was an association between emotional intelligence and self-efficacy with health behaviour. Emotional intelligence and self-efficacy can boost positive health behaviour. Such data have important implications for both health practice and policy especially for higher education institutions.*

**Keywords:** *Emotional Intelligence, Self-Efficacy, Health Behaviour, Undergraduate Students*

### ABSTRAK

*Pelajar universiti biasanya memasuki tempoh kebebasan mutlak daripada para ibu bapa yang boleh dikategorikan daripada pelbagai faktor. Faktor-faktor ini yang melibatkan unsur-unsur sosial, kewangan dan alam sekitar, boleh menjadi beban kepada pelajar yang menjadikan mereka berisiko dalam tingkah laku kesihatan yang negatif. Tingkah laku kesihatan yang negatif di kalangan pelajar universiti adalah satu perkara yang membimbangkan kerana berkecenderungan untuk dibawa ke alam dewasa yang mungkin menyebabkan penyakit kronik pada usia yang lebih muda. Keberkesanan diri dilihat meningkat dengan kecerdasan emosi pelajar, bersama dengan tingkah laku kesihatan yang lebih baik. Oleh itu, tujuan kajian ini adalah untuk mengkaji hubungan antara kecerdasan emosi dan keberkesanan*

*diri (mediator) terhadap tingkah laku kesihatan di kalangan pelajar universiti di Universiti Putra Malaysia, Malaysia. Satu kajian korelasional dijalankan ke atas 400 pelajar universiti sarjana muda yang tinggal di kampus dan dipilih melalui teknik pensampelan rawak berstrata menggunakan soal selidik tertutup (Schutte's Self Report Emotional Intelligence, General Self Efficacy Scale dan Health Style Questionnaire yang telah diubah suai). Kecerdasan emosi, keberkesanan diri dan tingkah laku kesihatan berkorelasi dengan signifikan pada  $p < .05$ . Oleh itu, terdapat hubungan antara kecerdasan emosi dan keberkesanan diri dengan tingkah laku kesihatan. Ini menunjukkan bahawa kecerdasan emosi dan keberkesanan diri dapat meningkatkan tingkah laku kesihatan*

**Kata Kunci:** *Kecerdasan Emosi, Efikasi Diri, Tingkah Laku Kesihatan, Pelajar Pra-Siswazah*

## 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 (World Health Organization, 2004). Many studies propose that healthy behaviors reduce morbidity and mortality rates (Hu *et al.*, 2011; Reddy *et al.*, 2011). Moreover, healthy living habits or behavior that is portrayed in the early childhood or youth would be adopted later in adulthood (Lansberg *et al.*, 2010). Even though, bad habits such as unhealthy behaviors are hard to change, 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 (Gall *et al.*, 2009). 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 morbidity and mortality (Spring *et al.*, 2012). At least five (5) categories of behavior have been consistently found to correlate with high morbidity and mortality (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) that includes (1) being (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 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, and physical activities are important to combat multiple stress 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 behaviour (Roxana Dev, *et al.*, 2014). According to Li, Lu, & Wang (2009), good emotion handling is a motivating factor for most human behaviour. Furthermore, 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 mechanism that was responsible for positive changing behavior that associated with physical activity participation. This was also seen in a Malaysian study done by Roxana Dev *et al.*, (2012).

Self-efficacy refers to a person's belief in his/her ability to organise 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, behaviours and attitudes (Faulkner & Reeves, 2009; Hagger, Chatzisarantis & Biddle, 2001; Yalcinalp, 2005; Schwarzer & Fuchs, 2009; Salami, 2004; Salami & Ogundokun, 2009). It is, expected that self-efficacy will be related to students' health behaviours. 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, 1994). Perhaps for an individual who has low emotional intelligence, having high self-efficacy will help him/her in displaying appropriate health behaviours.

Identification of factors influencing health behavior should be based on the theory that is applicable to a variety of health behaviours. However, most health-influential studies that were done previously was done in single health behavior and not staged as multiple health behaviours. Hence, the researcher have chosen self-efficacy (SE) and emotional intelligence (EI) as independent variables where EI is termed as distal variable and SE as proximal variable from the Theory of Triadic Influence (TTI) (Flay & Petraitis, 1994) to fill in the missing gap. Thus, this study aims to investigate the relationship of self-efficacy (SE) and emotional intelligence (EI) on health behaviors (HB) among university students in a public university in Malaysia.

## METHODOLOGY

This study is a quantitative correlational research. Pen and pencil, self-assessed survey form and 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 three main instruments used in the study; The Assessing Emotions Scale (TAES), 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 .87.

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 this study.

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= always. This study gain Cronbach alpha of .87 which fall in acceptable range. Previous studies have reported by Jackson (2007) to have Cronbach alpha of .78 to .95.

The participants administered the questionnaires which consisted of the measures described above at their college. Informed consents of the students and the college authorities were obtained. Of the 400 questionnaires, 400 were returned and all were properly filled and wused for data analysis. The data were collected within eight weeks and the questionnaires were completed anonymously with some additional information on gender, age, races, study program, and student's current year of study (first year, second year, third year or fourth year). The data collection of the study was done in the first semester of 2015-16 (October to December 2015). IBM Statistical Package for Social Science Statistics (version 20.0) was used for data analysis. Correlation analysis between EI, SE and HB was also analyzed.

## FINDINGS

### ***Relationship between emotional intelligence, self-efficacy and health behavior.***

Correlation analysis was used to attain the relationship between variables. Based on table 1.1, all the variables are positively correlated. Emotional intelligence is significantly correlated with self-efficacy ( $r = .398, p = <.001$ ) and health behavior ( $r = .354, p = <.001$ ). In addition, self-efficacy is significantly correlated with health behavior ( $r = .395, p = <.001$ ).

**Table 1: Emotional Intelligence, Self-Efficacy and Health Behavior Correlation Analysis**

		<b>Emotional Intelligence</b>	<b>Self-Efficacy</b>	<b>Health Behaviour</b>
Emotional Intelligence	Pearson Correlation	1		
	Sig. (2-tailed)			
Self-Efficacy	Pearson Correlation	.398***	1	
	Sig. (2-tailed)	.000		
Health Behaviour	Pearson Correlation	.354***	.395***	1
	Sig. (2-tailed)	.024	.011	

Notes : \*\*\* =  $p < .001$  (2-tailed); \* =  $p < .05$  (2-tailed)

## DISCUSSION

The primary aim of this study was to investigate the relationship between emotional intelligence and self-efficacy on health behaviors. It was found that the independent variables significantly have positive relationship with the students' health behaviors. These findings support the work of previous researches who found that both cognitive variables (emotional intelligence and self-efficacy) were positive correlated with students' behavior specifically health behavior. This study found that there was a positive moderate correlation between emotional intelligence (EI) and health behavior (HB). This is aligned with the study by Roxana *et al.*(2014) that stated high EI increases physical activity (an element of health behavior). Moreover, Syqit-Kowalkawska *et al.*(20145) 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 and personality. This study showed that higher participation

in EI decreased the negative aspects of psychological and in consequence with that increases health promoting behavior.

Next, it was also found that there was a significant positive moderate correlation between SE and health behavior. Association between SE and health behavior has 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.

This study also found that there was significant positive moderate relationship between EI and self-efficacy. 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 in adolescents.

In conclusion, it was found that higher level of EI can promote healthy behavior. This means that high EI individuals did not only increase their emotional health but also in health behavior. Furthermore, this study also found that EI was positively correlated with SE. Higher level of EI 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, acquired immune deficiency syndrome (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). Thus, EI skill becomes an important aspect of university student's healthy development. It addresses individuals to understand authentic ways of living. It helps young people to become useful members of the society.

In conclusion, current research indicates that students' emotional intelligence and self-efficacy have direct impact on resolving problems. Hence, the result justifies that emotions help make intelligent decision which one would be able to connect better with others. Besides that, it increases self-efficacy in one self and as a result, better decisions can be made (Behjat & Chowdhury, 2012) especially in connection with stress management among university students. Therefore EI should be addressed and nurtured among students in higher educational institutions for the holistic development of individuals. This can be achieved by adopting EI skills in collegiate programs and activities.

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