

DEVELOPMENT OF MINDFULNESS MODULE FOR PROMOTING HEALTHY LIFESTYLE AMONG FEMALE STUDENTS IN HIGHER EDUCATION INSTITUTION

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ABSTRACT

This study introduces the development of a mindfulness-based module named as The Journey to Healthier Me: Be Mindful, Be Healthy, & Be Happy (TJHM) according to the counselling intervention or module standard. The main objective of this module was to promote healthy lifestyle and wellbeing among female students at university. The Cognitive Behaviour Therapy (CBT) approach, Mindfulness approach and Sidek's Module Development Model (SMDM) were applied as guidelines in developing the mindfulness module. The validation stage was carried out by four expert counsellors, and Cronbach's alpha index 0.85 was obtained. A group of eighteen female participants aged between 20 to 25-year-olds had undergone the module in order to measure the module's reliability, where the reliability index was 0.95. As a result, the module is ready to be implemented as guidance and intervention for counsellors and health practitioners to enhance their client's wellbeing and quality of life.

Keywords: Mindfulness Module; Cognitive Behaviour Therapy; Well-being; Counselling Intervention; Female.

1. INTRODUCTION

A report by the World Health Organisation (WHO) on obese showed that more than 1.9 billion adults, above 18 years old were overweight and over 600 million were obese. Obesity is a growing global epidemic yet most neglected health problem around the world. Overweight and obesity poses a major risk for serious diet-related non-communicable diseases, and also linked with

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psychological disorder such as stress, depression and anxiety. For both, it reduces the overall quality of one's life (WHO, 2016).

Asia Pacific Cohort Studies Collaboration (2007) reported that the burden of overweight and obesity are increasing in the Asia-Pacific region which includes countries such as Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Mongolia, Philippines, Singapore, South Korea, Taiwan and Thailand. In 2014, the prevalence of obesity in Malaysia is about 45% of the citizens is recognized as obese and ranked as the Southeast Asia's fattest country (Berita Harian, 2014). Based on the National Health and Morbidity Survey (NHMS) by the Institute for Public Health (2015) showed that the national prevalence of obese Malaysian makes up 17.7 per cent, overweight is 30 percent of the population and had increased by 2.6% and 0.6% respectively as compared to the previous findings of NHMS 2011.

Past studies shown that woman have higher prevalence of overweight and obesity than man (Gouda & Prusty, 2014; Cai et al., 2014). The tendency for women who experiencing weight issue will likely use foods in order to cope with the negative emotions such as stress and also higher chance to engage in maladaptive coping behaviours (Bahl, Milne, Ross & Chan, 2013). In addition, it also could trigger psychological stress (Daubenmier et al., 2011), self-esteem and depression (Kim & Kim, 2001) and affect the quality of life. Kuan, Ho, Shuhaili, Siti & Gudum (2011) reported female students are more concerned with their weight and body image than male students. A study that been carried out on working women in Klang Valley, Malaysia, showed that most women regained weight after significant weight loss (Sena, Hasanain, Zaleha & Norimah, 2014). Moreover, obese female also spent lots of money when they purchase the expensive weight loss products without aware that the products may contain drugs or dangerous ingredients that could potentially give an adverse side impact to the user (Bellows & Moore, 2013).

The Malaysian government has organized lots of campaign and programs as an effort to promote healthy lifestyle and preventions to tackle obesity issues. Unfortunately, the governments' effort does not seem paid off as expected (Tee, 2011). The government also suggested that the clinicians should play a role in offering intensive counseling and behavioral interventions. There are numerous methods and programmes in reducing weight especially for people who intend to lose weight in Malaysia. However, there are none specific dietary or weight loss program conducted for overweight and obese people are proven successful, maintained for a long term and able to intervene eating behavior that caused by psychological distress or could cause psychological distress. This situation brings to a statement written by Heng (2004) in his study, Malaysia is still lacking of published studies regarding weight interventions that take psychological aspect into account.

The researchers suggested that to use mindfulness approach for practitioners to assist clients who wish to manage their weight and daily lives well. In fact, in Malaysia context, there is no well-established studies yet that aim to increase quality of life of an overweight and obese people through mindfulness approach. Recent studies show high interest in associating cognitive behavior therapy and mindfulness-based approaches to health and weight management to intervene both psychological and behavior parts. Kabat-Zinn (1994) describing mindfulness as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (p.4). Mindfulness is how an individual being aware or notice what is happening as a way to identify habitual patterns of thoughts, emotions, and one's behaviors in order to allow more positive changes to occur (Shaira Parveen & Siti Norazilah, 2015). Earlier studies (Hasson, 2013; Murphy, Mermelstein, Edwards &

Gidycz, 2012) also reviewed on how concepts of mindfulness help to foster positive changes in healthier eating practices and well-being of an individual. Studies found that mindful eating promotes assurance that it is an effective approach for people who wants to manage their weight effectively and improve the level of their health-care (Miller, Kristeller, Headings, Nagaraja & Miser, 2012).

Therefore, the researcher sees that there is a need to develop an intervention strategy specifically tailor for women who encounter weight issues which is through mindfulness approach. The aim of this study was to develop a mindfulness module for overweight and obese female students in order to give knowledge and improving their wellbeing and practicing healthy lifestyle.

2. MATERIALS AND METHODS

In order to construct or develop an effective mindfulness module, the researchers referred The Sidek Module Development Model (SMDM) by Sidek (2005) as a module development guidance in Amalia and colleagues (2013). As proposed by Sidek (2005), there are two phases in order to develop a research standard counselling intervention effectively. In the model, researchers are advised to choose a suitable theory/approach or model before developing an effective module. The theoretical module development works as a platform for trainer to develop modules that related and the evaluation of the module is divided into three parts which are reliability, validity and effectiveness. Selecting the appropriate and related materials, components and elements beforehand is also a significant stage in developing modules. For that reason, in this study, the researcher develops mindfulness modules, model framework and constructs questionnaires as suggested and emphasized (Sidek, 2005; Amalia & Sidek, 2013).

2.1. Procedure

There are two phases carry out in developing a counselling module. The first phase is to validate the module by expert panels (i.e. counsellors). The second phase is to check the reliability of the module among the female students.

(a) First Phase: Validation Process

To determine the content of mindfulness modules, four expert panels were invited to assess the validity of mindfulness modules and also to get their opinion through the questionnaires that have been adapted from Sidek (2005). The experts were given a complete set of mindfulness modules validity form. The experts were required to fill in the validity form which has five items rated on a five point of Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The following formula in Figure 1 was used to calculate the scores given by the experts in order to obtain the validity percentage:

Figure 1: Formula to Obtain Content Validity

$$\frac{\text{Total score of the expert (x)} \times 100\%}{\text{Maximum score (25)}} = \text{Achievement of content validity}$$

Source: Sidek and Jamaludin (2005).

A total score given by the experts through the Likert Scale were summed up and the scores were divided with the maximum score of the Likert Scale and was multiplied afterwards. If the obtained percentages are more than 70%, the modules have a good validity and otherwise if the score obtained is lower than 70%. The percentage will be covert into decimal point with 100 percentage as 1.00 and 0 percentage as 0.00, known as correlation value. Through this method, if the module content has 80 percentage of validity then it is considered as content validity of coefficient 0.08.

(b) Second Phase: Reliability Measuring Process

In order to assess the reliability of mindfulness modules, the participants were given a set of questionnaires after the completion of training session. Each item from the questionnaires were constructed based on the questionnaires from Sidek and Jamaludin (2005). The questionnaires generally covered regarding mindfulness such as definition of mindfulness, mindfulness techniques, emotional eating, mindful eating, and also the participant's future plan relating to mindfulness. The questionnaire forms were collected afterwards and the data obtained was analyzed using Cronbach's Alpha coefficient value to assess the reliability of the module.

2.2. Participants

The sample of participants in this study involved eighteen undergraduate female students of Universiti Malaysia Sarawak (UNIMAS). Participants were recruited through advertisement on campus such as program flyers and information sheets. The participants were selected by using purposive technique because this method chose participants who fulfilled the requirement and objective of the study which was among the undergraduate female students and ranging age was between 20 to 25 years old. The single group took participation and attending a two days program of counselling intervention named as 'The Journey to Healthier Me: Be Mindful, Be Healthy, & Be Happy (TJHM)' which use mindfulness as the main approach to promote well-being among the participants.

There are five mindfulness-based sub-modules which written for TJHM program. The modules is based on the mindfulness therapies such as Mindfulness-based Cognitive Therapy (MBCT), Acceptance and Commitment Therapy (ACT), and Dialectical Behavior Therapy (DBT) with integration of Cognitive Behavior Therapy (CBT). Plus, the intense discussion among module developers on how mindfulness approach is interrelated with CBT. The module development standard was based on Sidek's Module Development Model. The first stage started from objective development until the completion of the module draft, whereas the second stage included the validity and the reliability of the module.

3. RESULTS AND DISCUSSION

Based on the finding of this study, it has been proven that there is a need to develop a mindfulness module with the purpose of providing knowledge and skills, as well as to nurture positive well-being among the target participants. The development of mindfulness module has gone through several phases which include analyze the content and requirement needed of the module, design phase, evaluate the validity before implement the pilot study. This process provides a data to identify the strength and weaknesses of the module and the final phase was to evaluate the reliability as well as the effectiveness of mindfulness module. Therefore, the content and activities

in each of the mindfulness submodules are proven effective and can be used as a guidance in order to encourage an individual to practice mindfulness in everyday life for the sake of his or her well-being enhancement.

According to Othman (2000), researchers validate a module means that it measures and test what are supposed to be measured and tested. The result indicates that the mindfulness module possesses high and good content validity after the calculation of total score given by four expert panels involved in this study is 85%. As mentioned by Tuckman and Waheed (1981), if the module has content validity of 70% or more, it is considered as high mastery and achievement level. Therefore, the validity result verified that the mindfulness module can be implemented to increase knowledge and could change an individual's attitude towards positivity.

Russell (1974) has stated that in order to determine the reliability of a module, the module developer need to see how far and constant the participants able to participate during the delivery of the module content. This is because the activities conducted and the module's content delivery will determine whether the participants achieve the target objectives of the module or not. As mentioned by Mohd. Majid (2004), the coefficient value for reliability of an instrument must be at least 0.60. to present that the module shows a consistency in measuring the items. Since the TJHM module has high reliability which is 0.95 means that the module has good consistency in measuring the intended items.

3.1. Results of Validation Analysis

Four expert panels were recruited based on their expertise in teaching, research, and clinical experience in the similar studies and approach, have been invited to determine the content validity of mindfulness module. The Table 1 below show the scoring percentages and overall comment as well as suggestion from four different expert panels after they have validated the content of mindfulness module:

Table 1: Validity Index of TJHM Module

Expert Panels	Percentage (100%)	Score (25)	Comment and Suggestion
Expert Panel I	100%	25	Module development is well-written as objectives are achievable which the objectives are soundly knowledge-sharing.
Expert Panel II	80%	20	Activities are good and please reflecting more on behavior and affective
Expert Panel III	76%	19	My suggestion is please including expectation outcomes and significant in selecting target group.
Expert Panel IV	84%	21	Mindfulness diary activity is good in order to see on how participants able to apply mindfulness in real life.
Total of Average		21.25	

Therefore, in order to assess the validity of mindfulness module, the formula adapted from Sidek and Jamaludin (2005) was used to calculate the score given by the module expert panels as in Figure 2.

Figure 2: Total Module Content Validity (%)

$$\left(\frac{\text{Total score from expert panels}}{\text{Maximum Likert score}} \right) \times 100 = \text{Module Content Validity (\%)}$$

$$\frac{25+20+19+21}{4} = 21.25$$

$$4$$

$$\frac{21.25}{25} \times 100 = 85\% = 0.85$$

$$25$$

Based on the calculation above, the final score for the mindfulness content validity is 85%. According Tuckman and Waheed (1981) and Abu Bakar (1995), the mastering level of 70% and above is said to be an achievement of higher level. Since the TJHM module scored 85%, therefore it can be concluded that the TJHM module has high level of content validity.

3.2. Results of Reliability Measure Analysis

The reliability form of TJHM module were distributed to the participants after the researchers had finish conducted and delivered all of the sub-modules during the second day of TJHM program. There were 25 total items included in the reliability form and all of the items were related to the content of five sub-modules of TJHM involved in the program. The data gathered from the reliability forms have been analyzed in order to obtain the coefficient value of Cronbach Alpha. The coefficient value obtained from the module reliability was determined based on the internal consistency measurement of Cronbach’s Alpha.

3.3. Reliability Index

Table 2: Reliability of TJHM Module

Cronbach's Alpha	N of Items
.945	25

The researcher constructs the reliability items in Likert scale and based on the objectives content from five (5) TJHM sub-modules. Table 2 shows that the total items in mindfulness module has 0.945 of Cronbach’s Alpha value. In George and Mallory (2003) (as cited in Gliem & Gliem, 2003, p. 84) stated that alpha value ranging of 0.9 are considered excellent in internal consistency and high level of reliability. Therefore, the value obtained which is 0.945 indicates that the reliability scale for the mindfulness module has high coefficient value.

4. CONCLUSION

The Journey to Healthier Me: Be Mindful, Be Healthy & Be Happy module is successfully developed, and have obtained high validity and reliability indexes. The module is ready to use and applicable for female students, especially whom having issue with practicing healthy lifestyle. It is hoped that the module will improve students’ lifestyle into healthy lifestyle. The practitioners

and counsellors can implement the TJHM module at the organization or any other setting such as hospitals with the purpose of assisting an individual especially women who encounter weight and psychological issue. Further works need to be done in a bigger scale and with control group in order to identify the effectiveness of the TJHM module. This study focusing on women participants, therefore, it would be great if the same study replicate to the men group. In addition, it was advisable to conduct the program continuously for more than one month and the follow-up session duration at least had to be conduct one month after the program ended.

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