ORIGINAL ARTICLE

Use of complementary and alternative medicine: Prevalence and health literacy among patients attending a Health Centre in Universiti Teknologi MARA Selangor

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Abstract:

The used of Complementary and Alternative Medicine (CAM) has gained worldwide trust in developed and developing country. CAM used is associated with self-care decisions making in obtaining treatment and various benefits and possible adverse effects. Although CAM used is popular among Malaysian users, however, limited published studies related to their health literacy of CAM among this population. This study determines the prevalence and health literacy of CAMs among patients in a Health Centre, Universiti Teknologi MARA (UiTM) Selangor. A cross-sectional study was conducted at a Health Centre, UiTM Selangor from April 2019 to May 2019. A questionnaire consisting of demographic data, health status and the Montana State University Complementary and Alternative Medicine Health Literacy Scale was distributed to a total of 306 respondents. Descriptive analysis and inferential analysis were analysed for the study. The result shows the prevalence of CAM used was 35.6% and 27% of participants reported feeling satisfied with the CAM used. This study also reported a high literacy level of CAM among patients attending the Health Centre (Mean=61.784, SD=5.403). There was a weak positive relationship between health literacy and age (r_s=0.199, $p<0.001$). These study also found that health literacy for female is statistically significantly higher (Mean=62.053, SD=5.261) than male (Mean=60.140, SD=6.006); [$t(304)=-2.166$,$p=0.031$]. These results suggest female gender, being older, had better health literacy regarding CAM. This emphasizes that there is a need for the healthcare provider to keep on assessing and educate their patients especially among men and younger population with adequate information regarding CAM use.

Keywords: alternative**(s)**; complementary; health, literacy; medicine

1. INTRODUCTION

Complementary and Alternative Medicine (CAM) is defined as a group of diverse medical and health care system, practices, products that are not presently considered part of conventional medicine such as herbal product and dietary supplement [1]. Besides, the user has been known to self-prescribed CAM for health conservation, treatment or prevention of non-serious disease [2]. Some of scientific evidence showed a majority of the patient felt the CAM was sufficient for the specific condition. Even though the use of CAM is well known, the prevalence and health literacy associated with it is still mostly unknown. Meanwhile, the term of health literacy can be explained as 'the degree to which individual can obtain, process, and understand basic health information and services needed to make appropriate health decisions' [3].

Health literacy is crucial in making complex health care decisions and is also related with consumers understanding of associated risks and benefits of various treatment options [4]. Based on previous study in United States, health literacy is considered as a critical problem, with nearly 9 out 10 adults having difficulty using routine everyday health information from providers, retail outlets, and the media [5].

In addition, although CAM used is popular among Malaysian user, previous study in Malaysia reported that there is a paucity of baseline data on the usage of CAM by the Malaysian community [6]. Based on the five studies conducted in Malaysia, there are high prevalence of CAM users particularly in the used of herbs-based therapies for both health issues and health maintenance [6]. A study conducted in a General Hospital in Kuala Lumpur revealed that Malay (P=0.026) and female (P=0.006) were significantly associated with high prevalence of CAM use [7].

Previous study reported that a higher percentage of participants consulted neither health care professional (81%) nor CAM practitioner (78%) before using CAM [8]. Moreover, one study showed that participant who obtained tertiary level education (89%) was more likely to use CAM compared to others [9]. Next, a minority of less than 10% patient disclosed the used of CAM to their physicians [10]. However, if we look through these studies from 2009-2016, there is a gap in this area such as not much has been discussed about health literacy of CAM in Malaysia, the setting of study which is generally conducted in the area of Kuala Lumpur rather than other location.

The vision of Health Centre of Universiti Teknologi MARA (UiTM) is to create a healthy physical, social and spiritual university community [11], therefore, it is hoped this study will benefit the Health Centre in delivering their best healthcare services. Therefore, the study aims to determine the prevalence and health literacy of CAM used, to examine the relationship between demographic data and health status with health literacy of CAM among patients attending a Health Centre in UiTM Selangor.

2. MATERIALS AND METHODS

2.1 Study Design

A cross-sectional study was used.

2.2 Study Setting and Population

This study was conducted at Health Centre of UiTM Selangor, Puncak Alam Campus. Currently, the number of patients attending the Health Centre was reportedly 1500 per month [12]. The target participants were specifically to all patients who received treatment in the Health Centre. Based on the inclusion criteria, 306 target participants were selected [13] by using purposive sampling technique.

2.3 Inclusion and Exclusion Criteria

The inclusion criteria included an adult of age 18-year-old and above, Malaysian and able to understand English and Malay. The exclusion criteria were patients who involved in direct selling or drop-shipping CAM product and those who are unwilling to give a good cooperation, prior of data collection, were excluded from the sample.

2.4 Instruments

The questionnaire consists of three sections. Section A was Demographic Data consist of three items; Section B was a Health Status consists of seven items and Section C was adapted from The Montana State University Complementary and Alternative Medicine Health Literacy Scale [14], regarding Health Literacy of CAM that consist of 21 items. This section asked about health literacy toward CAMs, specifically related to person's basic knowledge about the conceptual component of CAM health literacy, dose, effect, safety, and availability. A 4-point Likert scale was used in this section (agree strongly, agree somewhat, disagree somewhat, and disagree strongly). The scoring ranged between 21 (lowest) and 84 (highest) and the higher scores indicate a better health literacy toward CAM [14].

2.5 Ethical Considerations

The survey was approved by UiTM Research Ethics Committee on 25th February 2019 with reference number 600-IRMI (5/1/2019). The Health Centre was approached with the ethical approval letter of study and a permission letter to carry out the survey in the Health Centre. Verbal permission was given from the Health Centre committee to conduct the study before the questionnaires been distributed to the patient.

2.6 Analysis

All data were analyzed by using Statistical Package for Social Science (SPSS) Version 21.0. The descriptive statistics was used and frequencies were shown in percentages, means and standard deviation and summarized in the tables. Next, data analysis was performed using inferential statistics which including of Spearman's Correlation Coefficient, independent t-test and Analysis of Variance (ANOVA) to answer the research objectives.

3. RESULTS

Of 310 patients approached for participation, 306 (98.71%) completed the questionnaires. In this study, majority of the participants were female 85.90% (n=263) and 14.10% (n=43) were male. The mean age of the participant was 22.35±1.282 years (range 20 to 26 years). The race distribution for Malay participant was 95.40% (n=292), with the balance of 4.6% (n=14) non-Malay. For the health status analysis, from these 306 respondents, more than half of them have normal BMI 58.2% (n=178) and 96.1% (n=294) were never smoked.

The questionnaires also asked about individual's health condition. Based on the result, it was found that only a substantial number of patients 77.8% (n=238) did not have any health condition, while 22.2% (n=68) of the balances have a health condition. Those with health problem (8.8%) were suffering from back pain, (3.3%) depression followed by small numbers of patient with anemia (1.6%) and gastritis (1.6%) respectively while other problems (6.9%) included anxiety disorder, allergy, eczema, diabetes, hypertension, hyperthyroidism, kidney, ganglion cyst and asthma.

This study found that only those with health condition were reported to seek for hospital treatment with main reason (10.8%) for symptoms relief, followed by desire for control (6.5%), for management of chronic illness (1.3%), and other medical problem (3.6%).

3.1 Prevalence of CAM used

The prevalence of CAM used among participants in Health Centre UiTM Selangor is 35.6% with the frequency of 109. Among those who used CAM, 85 participants claimed satisfaction with the CAM used (27.8%), leaving 24 participants choosing no satisfaction (7.8%).

A total number of 85 participants had used CAM, with most of the CAM user used mind and body therapy (16.7%), followed by alternative and manipulative therapy (12.4%), while least choose for biological therapy (6.5%).

3.2. Level of health literacy

The finding revealed the total level of health literacy at a minimum score of 45.00 and a maximum score of 78.00. The result presented that all the patient attending the Health Centre have adequate health literacy toward CAM used (M=61.784, SD=5.403).

3.3. The Relationship between health literacy and demographic data

3.3.1. The Relationship between health literacy and age

The result of the Spearmen's correlation reported that there was a significant weak association between age and health literacy (rs=0.199, p<0.001). This can be interpreted as the health literacy is directly proportional to age. However, it was weak positive relationship as can be seen via the scatter plot in Figure 1.

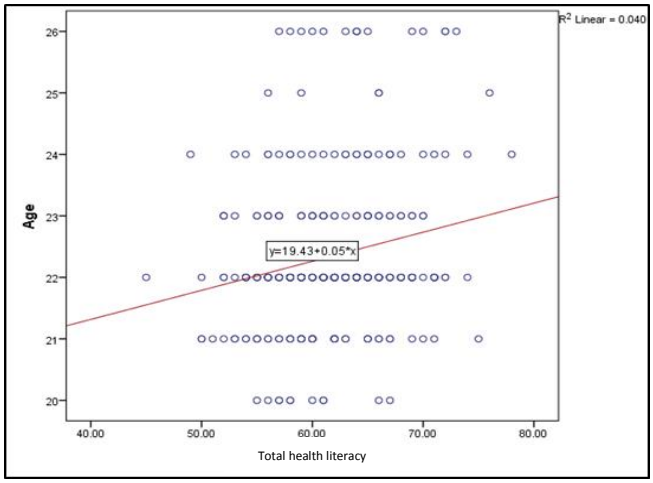

Figure 1: Scatter plot between variable of health literacy and age

3.3.2 The relationship between Health Literacy with Race

Based on the independent samples t-test, the variance was homogeneous as assessed by Levene's Test for Equality of Variances for races and gender group. For races, there was no significant for Malay (M=61.80, SD=5.40) and non-Malay (M=61.57, SD=5.70) conditions; t(304)=0.151, p=0.880 with a difference of 0.233(95% CI, -2.69 to 3.14). This result suggests that races of Malay and non-Malay do not affect health literacy.

3.3.3. The Relationship between health literacy and gender

The result for gender found that health literacy for female was statistically significantly higher (M=62.053, SD=5.261) than male (M=60.140, SD=6.006) conditions; (t(304)=-2.166, p=0.031) with a difference of -1.914 (95%CI, -3.652 to -0.175). Hence, this result suggested that the gender of female and male affect health literacy.

3.4. The Relationship between health literacy and health status

Based on ANOVA test, the result reported that there was no statistically significant difference between health literacy and BMI, F(3, 302)=0.889, p=0.447. Besides, the relationship between health literacy and smoking habits also showed that there is no statistically significant difference with [F(2,303)=0.412, p=0.663] since p=0.663 (>0.05). This may be due to small data collection among smoker participants.

The finding presented only 68 (22.22%) of participant having health problem, whereas most of them were suffering back pain problem (8.8%). This result showed that there was no significant difference between those with a health problem (M=62.0.15, SD=5.290) and health literacy, t(304)=0.398, p=0.6910. Next, this test also analyzed the relationship between hospital treatment and health literacy. As only 68 (22.2%) of participant were having health problem, thus all of them (22.2%) were reported seeking for hospital treatment. The result also showed that there was no significant difference between a participant who is seeking hospital treatment (M=62.118, SD=5.299) and health literacy, t(304)=0.576, p=0.565.

4. DISCUSSION

4.1. Prevalence of CAM Used

This study found that the prevalence of CAM used among patients attending to the Health Centre was 35.6%. This figure was lower than the prevalence reported by other study [15]. In contrast, a study conducted in Malaysia with a total of 1601 participants, found 542 (33.9%) were reported to use the complementary therapies [2]. The variances in the prevalence and number of CAM used by the participants in this study and previous research might be due to the differences in CAM types or the differences in the study setting.

4.2. Level of Health Literacy

In this study, the possible range of health literacy is between 21 and 84, where the greater level of CAM health literacy is shown when the participants obtain a value more than 42 [16]. In overall, surprisingly, this study found that all patients attending the Health Centre of UiTM Selangor were having the right level of health literacy. This is evident by the minimum statistic of 48. From the researcher view, this result may be due to the population sample where most of the participants were a student studying in UiTM Selangor. Therefore, this can be concluded that having good health literacy level is influenced by educational background. Previous researchers had mentioned that poor health literacy was significantly associated with less education [17].

4.3. The Relationship between health literacy and demographic data

The third objective of this study was to examine the relationship between demographic data (age, race, gender) and health literacy of CAM used among patients in the Health Centre.

4.3.1. The relationship between health literacy and age

The results of this study show that there was a significant association between health literacy and age. It can be said that when the variable of age increased, the health literacy of CAM used among participant attending the Health Centre also improved. This can be related to the cognitive status that shown to be significant predictors of health literacy among matured people. Indeed, an increase in age, indicate the individual may have better health literacy to make appropriate health decision. Some of the literature stated that age had been associated with health literacy as well [15].

4.3.2. The Relationship between health literacy and race

Concerning the relationship between health literacy and race, these findings were somewhat surprising given the fact that the result of the current study did not support the previous research. Contrary to expectations, this study did not find a significant difference between health literacy and race. The present study findings revealed that health literacy does not influence races. The health literacy towards CAM used was found to be equal between the races due to the majority of the Malay participants. This may be due to the location of the Health Centre in UiTM Selangor, where current research primarily has a significant Malay population. Moreover, in this study, Malay contributed to the highest percentages in terms of races group. It is possible that this result could be a statistical imbalance. Therefore, further study is needed to clarify this finding.

4.3.3 The relationship between health literacy and gender

This study revealed female participant had slightly better health literacy in CAM used compared to the male participant. As being expected based on the last review, female gender had been associated with good health literacy toward CAM used. Regarding the relationship between health literacy and gender, the finding was consistent with the 2003 National Assessment of Adult Literacy, which indicated that lower health literacy was associated with male gender [18]. It was found that female was indeed significant variables influencing CAM use. The same finding was found in Singapore and Malaysia [8]. This showed that the health literacy indeed related to gender. However, some of the published literature failed to establish a consistent pattern. Thus, further research is required to verify this finding.

4.4 The relationship between health literacy and health status

The fourth objective of this study was to examine the relationship between health literacy and health status consisting of body mass index (BMI), smoking habits, health problems and hospital treatment. Although systematic review on relevant literatures reported that health literacy had been associated with reduced health status [19], surprisingly, this study found that there was no significant difference between health literacy and health status. This result may be due to the population setting as the result may be affected by small data of smoker, respondents that getting hospital treatment that may lead to bias. In addition, smokers with lower health literacy in fact were more challenging to recruit [18]. Research is needed to gain a better understanding of the relationship between health literacy and health status.

5. CONCLUSION

To conclude, this study found female gender, being older, had better health literacy regarding CAM. Although the level of health literacy among patient attending the Health Centre is good, there is still a need for the healthcare provider to keep on assessing and educate their patients especially among men and younger population with adequate information regarding CAM use. Further research is required to replicate these findings so that a fuller picture and understanding of CAM used in Malaysia can be further discovered.

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