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RELATIONSHIP OF PERCEPTION OF SELF MEDICATION BEHAVIOR USE OF COMPLEMENTARY ALTERNATIVE MEDICINE (CAM) IN DENPASAR CITY (Observational Study Through Theory Approach Drug Use Health Belief Model)

Putu Eka Arimbawa, Ni Putu Aryati Suryaningsih

Department of Clinical Pharmacy, Health Sciences Institute Medika Persada Bali, Indonesia

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ABSTRACT

Introduction: CAM use in the community for supporting therapy in the treatment of diseases.The use of CAM in the community depends on behavioral factors and can be measured using Drug use Health Belief Model (HBM).

Methods: This research is cross-sectional study. The sample used in the study is around 97 peoples in Denpasar City. The data were collected between November–December 2018 by using questionnaire-based interview and analyzed by using by ordinal logistic test.

Result: There is a significant relationship between health motivation (p=0.02; OR=5.11; CI=0.15-2.11) and perceived benefits (p=0.04; OR=4.19; CI=-2.11-0.047) with the use of CAM. The Perceived Susceptibility (p=0.74; OR=0.10; CI=-0.96-1.34), perceived severity (p=0.68;OR=0.16; CI=-0.89-1.36), perceived barriers (p=0.97; OR=0.001; CI=-0.98-1.02), self efficacy (p=0.90; OR=0.015;CI=-1.02-0.90) does not provide a significant relationship.

Conclusion: .Public perception in using CAM can improve the quality of life which is the essential thing in health motivation. The benefits of using CAM indirectly can provide comfort in treatment even though it has not been clinically proven effective**.**

KEY WORD: Perception**,** Behavior, HBM, CAM.

Corresponding author: Putu Eka Arimbawa

E-mail: eka_apoteker@yahoo.co.id

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INTRODUCTION

Complementary alternative medicine (CAM) is a combination of treatment using primary therapy and additional therapy (vitamins, herbal medicines, and probiotics). Some complementary treatments are proven to cure diseases suffered by the community. The results of the study stated that the use of CAM inhibits the growth of cancer cells [1]. But there are also CAM studies that do not provide treatment success and even cause 53.6% of patients to experience organ damage [2]. However, CAM treatment is still widely used in the community.

The results of the study prove that the use of CAM itself throughout the world has experienced a significant increase (51.7%) [3]. The results of other studies reported 67% of US women reported using CAM in the past year [4]. The results of the study also state that 40% of the people in Indonesia use CAM [5].

Several factors can cause the development of self-management of CAM in the community such as the economy, time, influence of family or friends, and the level of knowledge [6]. The experience and information received will affect the individual's perception in making CAM treatment decisions[7]. One way to measure people's behavior can be to use the HBM method.

METHOD

This is analytic research. The study is conducted with cross-sectional survey design and by taking sample from people in Denpasar city between November-December 2018 with questionnaire-based interview. The sampling is done with Purposive Sampling. The sample which are used in the study is around

$$n = \frac{z^2_{1-\alpha/s} P(1-P)}{d^2}$$

$$= \frac{(1,95)^2\ 0,5\ (1-0,5)}{0,1^2} = 97 \text{ sample}$$

N = Sample
P = Chance
D = Limit error or absolute precision
Z21-α/2= Trust Metric

The minimum sample used in the research is 97 sample. The inclusion criteria of the research is the people by the age of 18-65 years old, live in the city of Denpasar, and Use self-administered CAM products purchased at the pharmacy (Vitamins, Supplements, and Herbal Medicines) for at least the last three months. The exclusion criteria of the research is not working as a health professional,using CAM products from prescription services, and CAM that does not come from pharmacy products. The questionnaire is using community behavior from HBM research (perceived susceptibilitiy, perceived severity, health motivation, perceived benefits, perceived barriers and self-efficacy) [8]. CAM measuring tool in the form regards questions last three months and analyzed by using by ordinal logistic test.

RESULT

Patient Socio-Demographic Characteristic Test Result and HBM.

The distribution frequency result of patient's characteristic shows that the output of female gender is 57.7% and male gender is 42.3%. The marital status shows that the married ones (60.8%) is more than the single ones (39.2%). In contrast, the education level of elementary/junior high/senior high school got a result for about 62.9% and university level has 37.1%. For patient's job level, there are 10.3% unemployed people, 67% private employees, 14.4%government employees and8,2% entrepreneurs.Age level tenageer (32%), adult (54.6%), and elderly (13,4%).the salary level of ≥150 USD/month is 56.7% and <150 USD/month is 43.3%. CAM use is 42.3%, use of Herbs / Supplements / Probiotics only is 7.2% and Synthetic drugs is 50.5%.

Tabel 1: Socio-Demographic Characteristic and HBM

Socio-Demographic Characteristic	F	%
Sex		
Female	56	57.7
Male	41	42.3
Marital Status		
Single	38	39.2
Married	59	60.8
Education		
ES/JHS/SHS	61	62.9
University	36	37.1
Job		
Unemployed	10	10.3
Private Employees	65	67.0
Government Employees	14	14.4
Entrepreneurs	8	8.2
Age		
Teenager	31	82.7
Adult	53	17.3
Elderly	13	13.4
Salary		
<150 USD/month	42	43.3
≥150 USD/month	55	56.7
Last 3 months CAM usage		
Synthetic drugs	49	50.5
Herbs / Supplements / Probiotics	7	7.2
CAM (Synthetic medicine + Herbs / Supplements / Probiotics)	41	42.3

Behavior of HBM	F	%
Perceived Susceptibilitiy		
Low	47	48.5
High	50	51.5
Perceived Severity		
Low	44	45.4
High	53	54.6
Health Motivation		
Low	43	44.3
High	54	55.7
Perceived Benefits		
Low	37	38.1
High	60	61.9
Perceived Barriers		
Low	48	49.5
High	49	50.5
Self-Efficacy		
Low	31	32
High	66	68

Frequency results of behavior based on HBM with values high perceived susceptibilitiy 51,5% perceived severity 54.6 % , health motivation 55.7%, Perceived Benefits 61.9%, perceived barriers 50.5% , and Self-Efficacy 68% .

Ordinal Logistics Test

The ordinal logistic test results are used to see the most influential factors in HBM. Ordinal logistic test results obtained are presented in table 2.

Table 2: Ordinal Logistics Test

Community Behavior Based on HBM	OR	95% CI		*P*
		Lower limit	Upper limit	
Sex	0.18	-1.12	0.70	0.66
Marital status	0.49	-1.05	1,03	0.82
Salary	2.01	-0.30	1.92	0.15
Education	0.22	0.79	1.29	0.63
Age	0.91	-0.45	1.33	0.33
Job	0.50	-0.87	4.40	0.47
Perceived Susceptibility	0.10	-0.96	1.34	0.74
Perceived Severity	0.16	-0.89	1.36	0.68
Health Motivation	5.11	0.15	2.11	0.02*
Perceived Benefits	4.19	-2.11	0.047	0.04*
Perceived Barriers	0.001	-0.98	1.02	0.97
Self Efficacy	0.015	-1.02	0.90	0.90

**significant*

Ordinal logistic test results of community behavior with CAM use have a significant relationship with health motivation (p=0.02; OR=5.11;CI=0.15-2.11) and perceived benefits(p=0.04; OR=4.19;CI=-2.11-0.047). perceived susceptibility (p=0.74; OR=0.10;CI=-0.96-1.34), perceived severity (p=0.68;OR=0.16;CI=-0.89-1.36), perceived barriers (p=0.97; OR=0.001;CI=-0.98-1.02), dan self efficacy (p=0.90; OR=0.015;CI=-1.02-0.90) does not provide significant relationships.

DISCUSSION

Relationship to perceptions of self-medication behavior based on health motivation and perceived benefits with CAM

The results of the analysis of high health motivation give results of 55.7% and provide a significant relationship (P= 0.02). The results of the study show that health motivation is a means to support the use of CAM, especially in pregnant women, to improve security[9]. The effect of health motivation is very instrumental in the use of CAM and reducing conventional medicine [10].The use of CAM is health motivation in the treatment of mild or moderate illness in the initial treatment[11]. CAM treatment can improve quality of life [12]. The resulting research has shown that CAM treatment for minor diseases has better results [13].

The results of the analysis of high perceived benefits give results of 61.9% and provide a significant relationship (P= 0.04). The results of this study are in line with the research of 78.6% of CAM users providing excellent benefits from CAM products[14]. The results of the study showed 80% of the community believed that CAM could provide health benefits [15]. Research results 53,6% of the people using CAM are useful in improving health conditions believing that it is safe and effective [16].The use of CAM by most people increases the results of therapy, reduces or prevents complications from conventional medicine, and improves quality of life [17]. CAM is a component of care that is increasingly important for people with pain, especially for the treatment of headaches [18]. Understanding the pattern of using CAM is useful for improving treatment[19].

Relationship to perceptions of self-medication behavior based on perceived susceptibility, perceived severity, perceived barriers,and self efficacy with CAM

The results of the analysis of high perceived susceptibility give results of 51.5% and provide a not significant relationship (P= 0.10). The results of this study are different from studies regarding the perceived susceptibility of the risk of consuming CAM which is a significant threat to patient safety [20]. The results of the study also stated that there was no

regulation on the use of CAM and differences in perceptions between complementary and conventional health care [21]. The results of this study are in line with CAM research for health promotion reporting that overall health behavior is better overall than those who use CAM treatment [22].

The results of the analysis of high perceived severitygive results of 54% and provide a not significant relationship (P= 0.68). The results of CAM studies are more often considered as additional therapy even though clinical safety does not yet exist [23]. CAM side effects can cause dangerous things even though the incidence is small [24]. The results showed that 90% of CAM users experienced side effects of cancer therapy [25].The results of other studies state that the perceived severity is not related to CAM[26]. People use CAM to increase their confidence in healing without regard to side effects [27].

The results of the analysis of high self efficacy give results of 68% and provide a not significant relationship (P= 0.90).This result is different from the study stating that attitudes and beliefs are part of the self-efficacy that affects CAM usage [28]. Self-efficacy has a positive impact on mental health dimensions in both CAM users and nonusers [29].CAM use is based on experience because side effects are small and do not require special procedures [30]. Another result of the study state that health personnel information can increase CAM selection [31]. The results of other studies state that there is no significant relationship between self-efficacy and CAM [32]. The results of CAM selection research as therapy are due to more external factors than self-efficacy factors [33].

The results of the analysis of high perceived barriers give results of 68% and provide a not significant relationship (P= 0.90). The results of the study are different from CAM research where there is a lack of clinical evidence as a barrier to CAM use by the public [34]. The results of the study show obstacles to using CAM such as access, competence, time, and culture [35]. The results of this study are in line with CAM research where perceived barriers do not provide a significant relationship (P>0.06) [36]. The results of this study are in line with the research of CAM which does not have obstacles, especially in the worrying side effects[37]

CONCLUSION

Health motivation and perceived benefits are perception factors related to CAM. Public perception in using CAM can improve the quality of life which is the essential thing in health motivation. The benefits of using CAM indirectly can provide comfort in treatment even though it has not been clinically proven effective**.**

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