SYSTEMATIC REVIEW

Prevalence, Types and Belief of Complementary and Alternative Medicine (CAM) Use Among Patients With Chronic Diseases: a Systematic Review

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ABSTRACT

Introduction: Chronic disease has been known as a long-term disease requiring patients to adhere to continuous medication treatment. In a bid to treat and cure chronic diseases, there are patients that practices complementary and alternative treatment (CAM) without or alongside conventional medication as it is believed to have health benefits in treating this non-communicable disease. The purpose of this study is to review on the prevalence, types, and beliefs of CAM among Malaysians with chronic diseases. **Methods:** This study followed the guidelines set by the "Preferred Reporting Items guidelines for Systematic Reviews and Meta-Analysis" (PRISMA) group. Studies were identified using electronic databases that included Science Direct, Scopus, SAGE, Springer, CINAHL, MEDLINE, and Google Scholar. **Results**: 13 articles that met all the eligibility criteria were reviewed in this study. Among all types of chronic diseases, patients with hypertension recorded a high number of CAM usage, followed by diabetes with natural products or biological-based therapies as the most common CAM used type. Most patients with chronic diseases believed that CAM was effective and much safer than conventional medicine. **Conclusion**: CAM treatment is a common means of treatment among the Malaysian population with chronic diseases to treat their illness depending on the health problem. The patients' belief and conviction play a vital role in their decision to employ CAM as an alternative treatment. However, it is worth noting that the literature was limited to several types of common chronic diseases among the Malaysian population.

Keywords: : Belief, Complementary and alternative medicine (CAM), Chronic disease (s), Non-communicable disease (s), Traditional and complementary medicine (TCM)

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INTRODUCTION

Chronic diseases are commonly described as disorders lasting one year or longer that require continuous medical treatment or limit activities of daily living or both (1). Chronic diseases, also known as non-communicable diseases (NCDs), which comprise cardiovascular diseases, diabetes, stroke, malignancy, and chronic respiratory illness, are collectively responsible for almost 41 million (70%) of all deaths globally, mostly in developing countries (2). Chronic diseases have become the top cause of death in Asia, specifically in Southeastern Asia where around 8.5 million deaths have been recorded annually. The majority of these incidents are premature, occurring in their late 60's (2). Consequently, many patients with chronic diseases have been driven by the debilitating existence of their illness and lifelong care regiment to search for an alternative in the hopes of managing their medical condition (3).

Complementary and alternative medicine (CAM) is any medical procedure that is beyond the norm of standard allopathic medicine (4). The words 'complementary' and 'alternative' therapies can be used interchangeably, but there is an important difference that needs to be considered. Complementary therapies can be combined

with conventional medical treatment, while alternative therapy is a therapy that is used instead of conventional therapy (5). In some countries, including Malaysia, traditional and complementary medicine (TCM) or alternative treatment is often known as CAM (6). The National Centre for Complementary and Alternative Medicine (NCCAM) has classified CAM into five main groups, which are: "natural products", "mind-body medicine", "manipulative and body-based practices", "energy therapies" and "whole medical system". This practice is influenced by age, sex, educational level, income (7,8), and socio-cultural factors (8). CAM has been used in primary health care since the Alma Ata Declaration, and approximately 80% of the world population uses CAM (9). According to World Health Organization (WHO), CAM includes various approaches, the knowledge that involves chemical, mineral, animal, physical workouts, spiritual healing that can be used individually or as a combination to maintain health and general well-being specifically for disease detection, care, or prevention (10). It has been reported that almost 70% of Malaysian population utilised CAM in their lifetime in 2010 (11).

The nature of chronic diseases' long-term therapies has increasing patient tendencies for seeking CAM (12), where it has been reported in several studies that the CAM practice is common among patients with chronic disease (13,14). Its usage is also associated with dissatisfaction with conventional medicine, beliefs on the effectiveness of CAM, and consumer preference for natural therapies (15). As a result of predominant CAM use among locals in Malaysia who had been diagnosed with chronic diseases (16), in 2007, the Malaysian government has sanctioned a policy suggesting that CAM should coexist with conventional medicines to enhance and increase the quality of life for Malaysians (17).

Research gap; existing studies related to prevalence, types, and belief of CAM among the Malaysian population with chronic diseases

Although there were many studies on the use of CAM among Malaysians population with different types of chronic diseases was published, nonetheless, to the best of our knowledge, there is still no systematic literature review published that focused on the prevalence, types, and beliefs of CAM among patients with chronic diseases. The purpose of the systematic literature review is to classify, interpret, and analyse all individual studies' results on a health-related topic, rendering the relevant data more open to decision-makers (10). Although there are a few studies aimed at systematically analysing CAM use among patients with chronic conditions in Malaysia, their focus is not on the frequency of CAM use among the Malaysian population or chronic diseases in general. A study by Yusoff et al., (18) for example, focused on CAM used among Malay, Chinese and Indian populations in Malaysia, while Nagashekhara et al., (19) focussed on CAM treatment among cancer patients in the country.

This systematic review is guided by one central research question – What are the practice patterns of prevalence, types, and beliefs of CAM use among patients with chronic diseases in Malaysia?

This study aimed to fill the gap by systematically reviewing previous related quantitative studies to understand better the recognition and description of the prevalence, types, and beliefs of CAM use among patients with chronic diseases in Malaysia. This systematic review mainly focused on Malaysia due to several reasons. A study was done by Peltzer & Pengpid (20) in 2015 on CAM usage among ASEAN countries reported that CAM usage was the highest in Malaysia compared to other ASEAN countries of which a majority used it to treat chronic diseases. Apart from that, there is a significant number of studies done in Malaysia that focused on CAM usage among patients with chronic diseases (21–24). This review may offer several significant contributions regarding the practical and current knowledge on CAM among the Malaysian population and provide insights on the future research approach on the use of CAM among patients with chronic diseases.

MATERIALS AND METHODS

Source

This systematic literature review followed the guidance set by the "Preferred Reporting Items for Systematic reviews and Meta-Analysis" (PRISMA) group (25). The selection for related articles was done based on the identification, screening, eligibility and included stages of the process as recommended in the PRISMA guideline.

Formulation of the Research Question

The formulation of the research question for this study was based on PICO mnemonic. It has been used most frequently in quantitative systematic reviews and centred on four key concepts: Population or Problem, Intervention or Exposure, Comparison and Outcome Measures (26). Based on these principles, in which the comparison aspect is not applicable, studies must include three main aspects in the review, namely patient with chronic diseases in Malaysia (Population or Problem), use of CAM in the treatment (Intervention or Exposure) and prevalence, types, and beliefs of CAM (Outcome Measures), which will then guide this study to formulate its main research question - What are the patterns of prevalence, types, and beliefs of CAM use among patient with chronic diseases in Malaysia?

Information Sources

The articles search through online databases was performed on June 15, 2020, using keywords shown in Table I. The search was conducted in ScienceDirect, Scopus, SAGE, Springer, CINAHL, MEDLINE, and Google Scholar. Articles from early 2010 until June 2020 were included as part of the review process.

Table I. Literature search strategy on seven databases

Database	Keyword	Results
Scopus	TITLE-ABS-KEY ("complementary and alternative medicine" OR "CAM") AND TITLE-ABS-KEY ("Prevalence" OR "Practice pattern") AND TITLE-ABS-KEY ("Treat chronic diseases" OR "Chronic diseases") AND TITLE-ABS-KEY ("Beliefs of CAM use" OR "Beliefs")	14
Science Direct	KEY ("complementary and alternative medicine" OR "CAM") AND KEY ("Prevalence" OR "Practice pattern") AND KEY ("Treat chronic diseases" OR "Chronic diseases") AND KEY ("Beliefs of CAM use" OR "Beliefs")	48
CINAHL	("complementary and alternative medicine" OR "CAM") AND ("Prevalence" OR "Practice pattern") AND ("Treat chronic diseases" OR "Chronic diseases") AND ("Beliefs of CAM use" OR "Beliefs")	9
SAGE	("complementary and alternative medicine" OR "CAM") AND ("Prevalence" OR "Practice pattern") AND ("Treat chronic diseases" OR "Chronic diseases") AND ("Beliefs of CAM use" OR "Beliefs")	5
MEDLINE	("complementary and alternative medicine" OR "CAM") AND ("Prevalence" OR "Practice pattern") AND ("Treat chronic diseases" OR "Chronic diseases") AND ("Beliefs of CAM use" OR "Beliefs")	6
Springer	("complementary and alternative medicine" OR "CAM") AND ("Prevalence" OR "Practice pattern") AND ("Treat chronic diseases" OR "Chronic diseases") AND ("Beliefs of CAM use" OR "Beliefs")	6
Google Scholar	("complementary and alternative medicine" OR "CAM") AND ("Prevalence" OR "Practice pattern") AND ("Treat chronic diseases" OR "Chronic diseases") AND ("Beliefs of CAM use" OR "Beliefs")	54

Search Strategy

The search was conducted using the keywords "complementary and alternative medicine", along with "prevalence", "treat chronic diseases", and "beliefs of CAM use". The search strategy was conducted by assessing the title of the articles, the study's setting, the types of CAM, purpose, and belief of CAM use. Studies were included based on the year of publication from 2010 onwards and in English, should involve a cross-sectional quantitative study design, and should be conducted in Malaysia as shown in Table I. The reference lists in the included articles were also screened for a more comprehensive review on the selected topic.

Selection Process

In the search for articles published in English from 2010 to 2020, a total of 142 articles were obtained from the mentioned online databases, of which 18 duplicated. The title and abstract of 124 were screened by two reviewers (AFZ and ASK), and 98 articles were excluded as it did not adhere to the inclusion criteria tabulated in Table II. The full text of 26 articles was screened further, and 13 articles were further excluded in view of insufficient detail and out of review scope. The remaining 13 articles were then incorporated in the present study. Subsequently, a second set of reviewers assessed the selected articles to determine the quality of the articles. The number of articles retrieved from each database is as follows: Science Direct 48 articles, Google Scholar 54 articles, CINAHL 7 articles, SAGE 7 articles, Scopus 14 articles, MEDLINE 6 articles, and Springer 6 articles. The PRISMA 2009 Flow Chart (25)

Table II. Numbers of excluded articles and reasons for exclusion for each database

Database	Numbers of articles retrieved	Numbers of excluded articles	Reasons for exclusion
Scopus	14	9	Duplicate: 2 Study setting beyond Malaysia: 2 Not cross-sectional study: 3 Publish year <2010: 2
Science Direct	48	41	Duplicate: 10 Study setting beyond Malaysia: 8 Not cross-sectional study: 12 Publish year <2010: 5 Out of scope:6
CINAHL	9	6	Study setting beyond Malaysia: 3 Out of scope: 3
SAGE	5	4	Duplicate: 1 Study setting beyond Malaysia: 2 Not cross-sectional study: 1
MEDLINE	6	4	Out of scope: 1 Not cross-sectional study: 3
Springer	6	3	Study setting beyond Malaysia: 2 Not cross-sectional study: 1
Google Scholar	54	49	Duplicate: 5 Study setting beyond Malaysia: 21 Not cross-sectional study: 8 Publish year <2010: 15

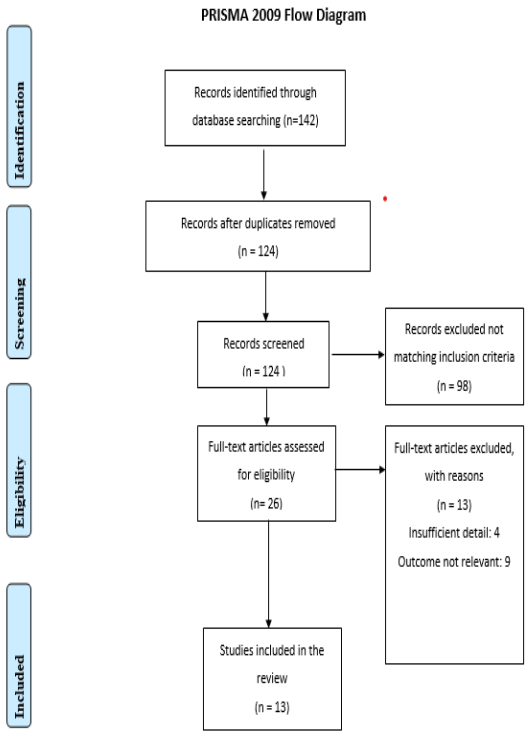

Fig. 1: PRISMA 2009 Flow Diagram. Flow chart to summarise the selection of potent articles for the review

was adopted to summarise the selection of articles for the study, as shown in Fig. 1.

Eligibility Criteria

The articles selection requirements for this review are as follows: published in English (IC1), deal with prevalence, types, and beliefs on the use of CAM (IC2), concentrating on the Malaysian population with chronic diseases (IC3) and should be a cross-sectional quantitative study (IC4). This study only selected articles written in English for publication purposes, while other inclusion criteria were incorporated to answer the research question on the practice pattern of CAM among patients with chronic diseases in Malaysia.

Quality Appraisal

The 13 articles that met all inclusion criteria were critically assessed using the "Joanna Briggs Institute (JBI) Critical Appraisal Checklist" for cross-sectional studies to evaluate the articles' quality. The purpose of this appraisal is to assess the methodological quality of a study and to determine the extent to which a study has addressed the possibility of bias in its design, conduct, and analysis (27). Table III provides a summary of the JBI cross-sectional studies appraisal. Selected articles for this study were appraised critically to obtain the respective outcomes are summarised in Table IV.

RESULTS

A total of 142 articles were obtained from several databases, of which 18 were duplicates and 98 were excluded due to the article's title, objective, target population, and beyond the Malaysian setting. The remaining 26 articles were then appraised for its eligibility; 13 full articles were excluded, and 13 met all inclusion criteria. The 13 eligible articles conducted in Malaysia were thoroughly read and analysed to gather suitable outcome measures for this study which includes prevalence, types, and beliefs of CAM among the selected studies population. In this review, four studies

Table III. Quality Appraisal

Author (year)	Inclusion criteria	Study subject and setting	Validity and reliability of the study	Risk of bias	Identify confounding factors	Strategies to deal with confounder	Outcome measure	Statistical analysis
Johny et al. (22)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Al-Naggar et al. (31)	No	Yes	Unclear	No	Unclear	Unclear	Yes	Yes
Farooqui et al. (30)	Yes	Yes	Yes	No	Unclear	Unclear	Yes	Yes
Fairuz Ali et al. (33)	Unclear	Yes	Yes	No	No	Unclear	Yes	Yes
Kew et al. (24)	Yes	Yes	Yes	No	No	No	Yes	Yes
Islahudin et al. (34)	Yes	Yes	Yes	Unclear	Unclear	No	Yes	Yes
Mitha et al. (23)	Yes	Yes	Yes	No	Unclear	Unclear	Yes	Yes
Siew-Mooi et al. (35)	Yes	Yes	Unclear	No	Unclear	Yes	Yes	Yes
Gan et al. (29)	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	Yes
Ching et al. (28)	Yes	Yes	Unclear	Unclear	Unclear	Unclear	Yes	Yes
Alshagga et al. (32)	Yes	Yes	Yes	No	Unclear	Yes	Yes	Yes
Shah (36)	Yes	Yes	Yes	No	No	No	Yes	Yes
Abdullah et al. (21)	Yes	No	Unclear	No	Yes	Yes	Yes	Yes

from a total of 13 focused on multiple types of chronic diseases, three on cancer, two studies on hypertension, two studies on diabetes and one studies each on asthma and stroke, respectively. Table IV provides a summary of reviewed articles that includes the author, objectives of the study, study sample size, prevalence, types,

Table IV: Results of the prevalence of CAM, types of CAM, the purpose of CAM, and belief of CAM use among the Malaysian population

Author (year)	Study objective	Sample size	Prevalence of CAM	Types of CAM	Purpose of CAM use	Belief of CAM use
Islahudin et al. (34)	To assess their knowledge, awareness and attitude towards garlic supplement	202 respondents	45% of the respondent admitted taking garlic supplements	Garlic 18.3% admitted taking other supplements such as vitamins, herbal pills, fish oils, bovine placenta, gingko biloba, ginger supplements, alfalfa, honey, dates and black cumin seed	To treat hypertension	18.7% belief that it was effective 2.7% noted the adverse effects 87.1% wanted to know about garlic to treat hypertension
Abdullah et al. (21)	To identify the factors of CAM usage for general health and to determine the factors associated with the usage of different types of CAM after the diagnosis of chronic disease	97492 individuals participated in the study	62.8% patients with cancer 53.3% with hypercholesterolemia 49.4% with hypertension 48.6% patients with diabetes	1.3% to 46.8% natural productS 1.4% to 43.8% energy therapy 1.6% to 41.6% whole medical system 1.3% to 44.5% manipulative body system 25% mind body	To treat chronic diseases such as diabetes, hypertension, cancer, and percholest-erolemia	Respondent beliefs CAM can be used to treat chronic diseases and maintain health well-being
Ching et al. (28)	To understand the prevalence, types, expenditures, attitudes, beliefs, and perceptions of CAM use among patients with diabetes mellitus visiting outpatient primary care clinics	252 were eligible 240 diabetics patients participated	62.5% prevalence of CAM use	50% biological-based therapy 9.6% manipulative-body based system 8.8% energy system 4.6% alternative medicine systems 1.7% mind-body system	To treat diabetes	58% believed CAM can better control blood glucose 17.3% better value for money 17.3 follow the steps of other CAM users 32.1% learned about CAM from friends, 13.8% from family, and 13.3% from media
Alshagga et al. (32)	To determine the knowledge about asthma and the prevalence, disclosure and evaluation of the use of CAM among asthmatic patients	95 Patients participated in this study	61.1% prevalence of CAM use	39% rubs 16.9% food 16.9% herbs	To treat asthma	75.8% Asthmatic patients' believed that CAM was good to manage asthma 62.1% CAM user did not inform their doctors 46.6% sources of information were family and relatives
Shah (36)	To determine the prevalence of CAM usage and to identify the types of CAM commonly used by patients with type II diabetes in Negeri Sembilan	828 respondents were interviewed	58.5% prevalence of CAM use among type II diabetes patient	54.5% Momordi-cachaantia (Peria) 20.5% Ortosiphon-staming (Misai Kucing) 12.2%Andrographi-spaniculata (Hempedu Bumi) 10.4% Azadicrachtaindica (Daun Semambu) 6.2% Morindacitrifolia (Mengkudu)	To treat type II diabetes	62.2% believed that CAM was effective 44.4% used CAM as an additional treatment for type II diabetes 21.5% use CAM according to culture and tradition 0.8% believed CAM is more effective

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Table IV: Results of the prevalence of CAM, types of CAM, the purpose of CAM, and belief of CAM use among the Malaysian population (CONT.)

Author (year)	Study objective	Sample size	Prevalence of CAM	Types of CAM	Purpose of CAM use	Belief of CAM use
Gan et al. (29)	To determine the prevalence of CAM and type of CAM used in group of patients with haematological cancers	250 patients 245 patients participated	70.2% prevalence of CAM use	90.2% biological-based therapies 42% mind-body intervention 35% alternative medical system 9% manipulative and body-based methods	To improve immune system and treat cancer	65% believed that CAM was effective 60% did not inform physicians regarding CAM use
Johny et al. (22)	To determine the disclosure of traditional and complementary medicine (TCM) use and its associated factors to medical doctor among primary care clinic attendees in Kuching Division, Sarawak	1,130 patients participated	80.2% prevalence of TCM used	43.6% biologically-based (nutritional therapy) 18.43% traditional Malay medicine (Malay herbs and Malay massage) 5.96% traditional Chinese medicine (Chinese herbs, acupuncture, and Tai Chi)	85.1% hypertension 62.7% diabetes mellitus 50.6% hypercholes-terolemia	9.6% disclosed the used of TCM within 12 months Perceived benefits: 1) TCM can prevent complication of illness (AOR = .999,95% CI: 1.850, 8.644) 2) CAM is safe (AOR = 4.537, 95% CI: 2.332, 8.828)
Al-Naggar et al. (31)	To determine the use of CAM among cancer patients in Malaysia	200 Cancer patients	14% of CAM used among cancer patients	22% Sea cucumber (Gamat) 10.5% Homeopathy 0.5% Green tea	19.5% for cancer pain relief 16.5% for cancer symptoms relief	65.5% believed that CAM was beneficiary to them 92% believed that CAM has no side effect 80% were satisfied with CAM
Siew-Mooi et al. (35)	To assess prevalence and patterns of CAM used in Klink kesihatan Salak, a suburban outpatient clinic in Selangor in Malaysia	294 patients participated	62.6% prevalence of CAM usage	76.9% herbal products (bitter gourd, garlic, Misai Kucing, Ular Hempedu) 4.8% alternative medical system (Ayurveda, acupuncture) 1.7% energy therapies 19.8% manipulative body-based system (reflexology and massage) 2% mind-body interventions	To treat hypertension	37.1% tried a new alternative treatment to improve blood pressure 11.2% used CAM when there are good examples from other users 30.6% sources of information were friends, 15.3% family and 13. 9% advertisement.
Mitha et al. (23)	To explore the types of CAM and reasons for using CAM among elderly Malaysians.	256 Individuals participate	64% prevalence of CAM used among elderly Malaysian	31% traditional Chines medicine 18% supplement 14% traditional Indian medicine 10% faith healing 9% nutritional therapy 8% massage 4% acupuncture 2% herbs 2% homeopathy 2% reflexology	To treat chronic diseases and promote health	55.1% believed that CAM is more effective than allopathy medicine 69.5% believed CAM is safer than allopathy medicine 78.5% believed that CAM has less side effect compared to allopathy medicine 82.8% agreed that CAM

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Table IV: Results of the prevalence of CAM, types of CAM, the purpose of CAM, and belief of CAM use among the Malaysian population(CONT.)

Author (year)	Study objective	Sample size	Prevalence of CAM	Types of CAM	Purpose of CAM use	Belief of CAM use
						is good to maintain overall health and wellbeing 44.1% believed that allopathy medicine is less effective
Farooqui et al. (30)	To evaluate the patterns of CAM use among cancer patients from a local hospital in Malaysia.	393 patients	46.1% prevalence of CAM for cancer	72.8% biological based therapies 40.8% mind-body medicines 36.9% whole medical system 1.6% energy medicines 1.0% manipulative and body-based therapies	To treat cancer	43% disclosed to the healthcare provider 34.2% did not disclose to the oncologist 75.5% friends and family members were sources of information
Kew et al. (24)	To investigate the prevalence of TCM use, treatment preference and substitution of conventional medicines among population with cardiovascular risk factors	2,776 respondents	31.7% prevalence of TCM used among respondents with cardiovascular risk factors	13.8% Misai Kucing (Orthosiphon Stamineus, Benth)	To treat hypertension, diabetes, and hypercholes-terolemia	49% substituted conventional medicines with CAM and did not disclose to the clinician 57.9% with cardiovascular risk factors would not substitute conventional medicine with CAM if their medication could be simplified to one tablet
Fairuz Ali et al. (33)	To determine the prevalence, practice, and perception of TCM use among stroke survivors attending an outpatient rehabilitation program in a teaching hospital	104 patients participated	66% Stroke patients admitted concurrent used of TCM while attending conventional rehabilitation	2.9% mind-body medicine (prayer, meditation, yoga, exercise) 7.7% biological-based (herbs and vitamins) 40.4% whole medical system (acupuncture, homeopathy and traditional Chinese medicine) 40.4% manipulative and body therapy (massage)	To treat stroke	74% believed it was safe because it has natural sources 68.3% believed that it relieved stroke symptoms 57.6% no significant side effect 62.5% considered it dangerous to use together with conventional medicines

purpose, and beliefs of CAM used across the studies.

Prevalence of CAM

The selected studies showed a high frequency of patient with chronic conditions been practicing CAM in Malaysia, especially patient with hypertension, cancer, and diabetes (22,28–30). The prevalence ranged from 49.4% to 85.1% amongst patient with hypertension 31.7% to 62.7% among patient with diabetes ,14% to 70.2% among patient with cancer, and 50.6% to 53.3% among patient with hypercholesterolemia (21,22,24,29,31).Single studies on both asthma and stroke patients attending an outpatient rehabilitation program in a hospital recorded a prevalence of CAM use of 61.1% and 66%, respectively, amongst the studies population (32,33).

Types of CAM

The most common types of CAM to treat chronic diseases reported in selected studies were biological or natural products as it was mentioned in all reviews, with examples such as garlic, honey, dates, vitamins (34), and

also in the form of various herbs such as Misai Kucing, Sea Cucumber and Momordicachaantia (24,31,35,36). It was then followed by the manipulative and body-based system (traditional massage, reflexology), mind-body approach (prayer, meditation, yoga), and the least were energy therapy and whole medical systems (acupuncture and homoeopathy). Biological and natural products were primarily used by most of the respondents throughout the selected articles, including patients with cancer, hypertension, diabetes, asthma, and hypercholesterolemia as their primary choice of alternative treatment for their illness compared to other types of CAM. However, patients with stroke favoured traditional massage, homoeopathy, and traditional Chinese medicine to treat their condition (33).

Beliefs of CAM

The study demonstrated that 18.7% to 74% of the patients believed that CAM was effective and safe (23,29,33,34,36), and 57.6% to 92% believed that CAM had little or no side effects (23,31,33). Among diabetic patients, 58% believed that CAM could better control their blood glucose than conventional medicine (28). Besides, 75.8% of asthmatic patients believed that CAM was appropriate in managing asthma (32), where 68% believed that it relieved symptoms of a stroke (33). It was identified that 21.5% of the study population used CAM according to cultural and traditional beliefs (36). Overall, 82.8% agreed that CAM maintains health and well being. The primary information resource about CAM were friends, family members, and the media.(27,30,32). Approximately 61% of the patients did not reveal their CAM treatment to their healthcare professionals (29,32), and 49% substituted western medicines with CAM without disclosing to their physicians (24). Some patients used CAM concurrently with conventional therapies, while other patients considered it dangerous (33).

DISCUSSION

Prevalence of CAM

The selected studies constitute a significant prevalence of CAM use amongst patient with common non-communicable diseases. This result once again correlated with Peltzer & Pengpid (20), who reported a high prevalence of CAM practice among the Malaysian population of which the majority used it in treating chronic diseases. Hassan et al., (37) have also reported the high prevalence of CAM use among patients with chronic diseases in a Malaysian public hospital. The use of CAM was significantly the highest among patients with hypertension (49.4% to 85.1%) and diabetes (31.7% to 62.7%). Hypertension and diabetes are currently the leading health issue in Malaysia; according to the National and Health Morbidity Survey done in 2019, it was estimated around 20% (6.4 million) of the Malaysian population have hypertension, and 12.5% (3.9 million) have diabetes in Malaysia (38). Thus consequently increasing the frequency pattern of CAM usage among patients with hypertension and diabetes.

Types of CAM

The most frequently reported types of CAM used to treat chronic diseases among the Malaysian population were biological and natural products. The increase in the use of various herbs and natural products such as Garlic, Misai Kucing, Gingko Biloba, and honey and their widespread availability in this country have made it the first option for Malaysia's alternative treatment (39). Herbs and natural products are known to display therapeutic potential against a variety of chronic diseases, including inflammation and cancer (40). It has been reported that Malaysians consume approximately RM1.2billion worth of imported herbal products annually (39). Besides biological and natural products, traditional massage (manipulative and body-based system) has been commonly used by patients as an alternative to cure their illness. The majority of the Malay ethnic community believed that conventional massage could boost circulation and muscle tone, thereby accelerating the healing process in patients with stroke (41). Massage therapy has been shown effective in treating chronic pain and diseases, including pain and fatigue in cancer patients, hypertension, autoimmune conditions including asthma and multiple sclerosis, and immune conditions including HIV and breast cancer (42).

Beliefs of CAM

Due to the debilitating and life-long nature of the treatments for chronic diseases such as hypertension, diabetes, and cancer, those suffering from chronic diseases tend to engage in the use of CAM. There are many factors influencing patients in choosing CAM as a treatment for their illness. The perception and belief expressed in many studies on the usage of CAM in chronic diseases treatment were; CAM is effective and safe, and it has fewer or no side effects. CAM is also readily available, accessible, and affordable. These beliefs and perceptions may eventually lead to poor adherence to standard conventional medications prescribed by health care providers (43). It is essential to determine whether an individual is taking CAM or any other medications other than those prescribed to recognise the causes for lower compliance to medication among patients with chronic diseases (44). Although complementary medicine, herbal products, in particular, are believed to be harmless among the users, they might have side effects and have the potential to cause drug interactions (45). A significant number of those who used CAM based their information on friends and family members or knowledge passed down by culture or practice from one generation to another without any supporting evidence. Jasamai et al., (17) in 2017 reported that 52% of the Malaysian adults main reason for CAM use is from the recommendation of friends and family members based on their personal experiences using CAM.

Limitation of the Study

The selected articles used in this study were limited to a particular type of common chronic diseases and did not cover all types of chronic diseases for a more decisive result and conclusion toward CAM usage. Apart from that, the studies were also were limited in identifying the types of CAM used as only the types of CAM group used in general is reported but not in the method or choice of CAM treatment specifically for several articles.

CONCLUSION

CAM treatment is common among the Malaysian population with chronic diseases, especially hypertension, followed by diabetes. Various types of CAM were used to treat these chronic diseases depending on the health problem. Biological and natural products were the most used CAM treatments to treat chronic diseases among the Malaysian population. This review also discussed the influencing factors in using CAM treatments where patients' cultural beliefs and ethnicity were among the key findings of CAM use. Family members and friends factors also convinced a majority of CAM users with chronic diseases. Consistent use of CAM among patients with chronic diseases without disclosing them to their healthcare providers might endanger their safety, especially when they are not sufficiently literate on the CAM they use and their illness. Additional exploration on the safety and benefits of CAM is decisive to minimise the disastrous effects and secure CAM products' effectiveness.

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