

## Exploring Patient Perspectives: Embracing Complementary Therapies for Chronic Conditions within Public Health Centers

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### Abstract

**Introduction:** Using complementary therapies among individuals with chronic illnesses has resulted in positive and negative outcomes. Nevertheless, patients exhibit reluctance to discuss these therapeutic options with healthcare professionals. As a result, delving into perceptions and involvement with complementary therapies becomes of utmost importance, establishing a fundamental reference for medical practitioners and ensuring the well-being of patients during the implementation process. This study aimed to meticulously examine the viewpoints of individuals suffering from chronic diseases regarding integrating complementary therapies within Public Health Centres.

**Methods:** This study used a cross-sectional approach. This investigation employed survey techniques and guided interviews conducted through the G-form platform. The questionnaire's validity, established at 0.89, and reliability, spanning from 0.37 to 0.76, have been verified.

**Results:** The study encompasses a participant pool of 328 individuals. Within the array of diverse complementary therapies, herbal therapy gains prominence, embraced by 260 respondents (79.3%), while massage therapy garners favor from 225 participants (31.4%). The majority of respondents hold a favorable perception that these therapies are innocuous and characterized by minimal side effects. Additionally, they emphasize the necessity for healthcare practitioners to acquaint themselves with complementary therapies, dispense informative guidance, and contemplate both complementary and conventional approaches when delivering healthcare services.

**Conclusions:** Herbal therapy emerges as a prevalent and comparably low-risk choice, contingent upon its prudent application tailored to specific ailments. Thus, equipping healthcare providers with a comprehensive understanding of complementary therapies assumes a pivotal role, enabling the amalgamation of traditional and alternative strategies to heighten the overall effectiveness of healthcare provision.

**Keywords:** Complementary therapy, chronic disease, Diabetes Mellitus, and Hypertension

### 1. Introduction

Non-communicable diseases, often referred to as chronic diseases, pose a significant threat to global health in the contemporary era. The incidence of chronic diseases has reached alarming levels, ranking as the leading cause of mortality worldwide. In the Southeast Asia region, a staggering 69 percent of total mortality is attributed to non-communicable diseases. These encompass ailments like heart disease, stroke, cardiovascular conditions, cancer, chronic obstructive pulmonary disease (COPD), and metabolic disorders such as diabetes, with cardiovascular disease emerging as the primary culprit (WHO, 2023).

For individuals grappling with chronic conditions such as hypertension and diabetes, affordable access to treatment becomes a matter of survival. While there is a global target to halt the rise of diabetes and obesity by 2025, it is evident that achieving this objective necessitates concerted and substantial efforts (Sun et al., 2022). Among the strategies adopted by individuals with diabetes to enhance their well-being and regulate blood sugar levels, complementary therapy has gained prominence (Ligita et al., 2019). According to the World Health Organization, (2023). Complementary and Alternative Medicine (CAM) has been practiced for centuries, encompassing a diverse array of therapies including dietary supplements, botanical remedies, traditional Chinese medicine, acupuncture, mind-body practices, and therapeutic massage. Remarkably, around 80% of the global population embraces at least one form of complementary therapy.

Motivations for engaging with CAM vary based on geographical location and the availability of conventional healthcare. A study by Adenyi, 2021 in Jamaica revealed that over half of patients diagnosed with Type 2 diabetes mellitus (T2DM) or hypertension (HTN) for over a decade reported utilizing complementary therapies. Particularly in regions where healthcare resources are scarce and costs are escalating, CAM provides a cost-effective and accessible alternative to conventional medical care. The World Health Organization (WHO) indicates that 30-40% of global healthcare modalities belong to conventional medicine, while the remainder falls under the category of complementary and alternative therapies (WHO, 2023). Traditional medicine is extensively employed across 170 WHO Member States, encompassing practices like acupuncture, herbal medicine, indigenous traditional medicine,

homeopathy, traditional Chinese medicine, naturopathy, chiropractic care, osteopathy, Ayurveda, and Unani (Greece alternative therapy).

However, it is imperative to exercise caution regarding inappropriate utilization of complementary and alternative therapies due to potential risks. The concurrent use of multiple anti-diabetic drugs, for instance, can lead to perilous drug interactions and adverse effects (Zhu et al., 2019). Despite the positive impact demonstrated in various studies, such as controlling blood sugar levels in patients with Type 2 diabetes, individuals remain reticent to discuss their use of complementary therapies with healthcare practitioners. Encouraging patients to openly communicate about their engagement with complementary therapies holds the potential to provide valuable insights to healthcare professionals, facilitating informed pharmacological treatment decisions and ensuring safety. Consequently, comprehensive research investigating the perceptions and usage patterns of complementary therapies among patients with chronic diseases is indispensable, serving as a foundational resource for healthcare providers and safeguarding patient well-being. This study thus endeavors to explore the perceptions of chronic disease patients regarding the incorporation of complementary therapies within the realm of Public Health Centres.

## **2. Methods**

### *2.1. Study design*

The research in this study employs a cross-sectional survey approach. The study is conducted at the Public Health Centres (PHCs) in Padang city. Data collection involves the use of open-ended questions aimed at gathering insights into complementary therapies and individuals' perceptions of these therapies concerning chronic diseases. The data collection method utilizes questionnaire sheets focusing on complementary and alternative therapies, which underwent validity testing with the obtained results.

### *2.2. Participants*

The study's population comprises patients with chronic diseases from 11 Public Health Centres (PHCs) in Padang City, Indonesia. The sample size was computed using the G\*Power application, resulting in a total of 328 samples. The sampling technique employed was purposive sampling, guided by inclusion criteria that excluded patients with cognitive or mental impairment.

### *2.3. Procedure for data collection*

The research team conducted the sampling, spanning a five-week data collection period through guided interviews utilizing Google Forms.

#### *2.3.1. Measurement demographic and clinical information form*

The distributed questionnaire encompasses sociodemographic data and respondent characteristics, encompassing aspects such as age, gender, education level, duration of illness, reasons for employing complementary therapies, duration and frequency of complementary therapy use.

#### *2.3.2. Measurement the complementary and alternative medicine*

The questionnaire draws inspiration from prior research by Heyland 2003, namely the Holistic Complementary and Alternative Medicine Questionnaire (HCAMQ) questionnaire, as well as the Complementary Alternative Medicine Questionnaire developed by Patterson & Arthur, (2009). The original English questionnaire underwent translation and subsequent re-translation by professional translators working independently. The translated version was tested on a sample of 30 individuals, achieving a validity score of 0.89 and reliability ranging from 0.37 to 0.76.

### *2.4. Data Analysis*

The data was analyzed using SPSS version 22 (Chicago, IL USA). The conformity of continuous variable to a normal distribution was evaluated with Kolmogorov-Smirnov test. Descriptive statistics were used to explore the study population and scores obtained from scales.

### *2.5. Ethical Considerations*

This research adheres to the ethical standards established by the Helsinki Declaration for human research. It has undergone ethical assessment and received approval from the Ethics Committee with reference No.041.Iaiketik/kepdkfkepunand. All participants were provided with comprehensive information regarding the study's objectives, procedures, and their rights.

### 3. Results

#### A. Sociodemographic and Characteristics of Respondents

The sociodemographic was performed including of age, gender, education, type of disease, length of disease, health status, purpose of using complementary and alternative medicine, duration of using complementary and alternative medicine, and frequency of using complementary and alternative medicine.

**Table 1**  
 Distribution of sociodemographic and respondent characteristics

No	Characteristics of respondents	f	%
1	Age		
	<40	3	9%
	40-59	111	33,8%
	60-75	199	60,7%
2	>75	15	4,6%
	Gender		
3	Man	58	17,7%
	Woman	270	82,3%
3	Education		
	Elementary	108	32,9%
	Junior High School	57	17,4%
	Senior High School	130	39,6%
4	College	33	15,4%
	Type of Diseases		
	Diabetes	32	9,8%
	Hypertension	230	70,1%
5	Diabetes + Hypertension	66	20,1%
	Length of disease		
	<1 Year	25	7,6%
6	1-5 Years	167	50,9%
	>5 Years	136	41,5%
6	Health Status		
	Excellent	26	7,9%
	Very Good	221	67,4%
7	Good	72	22,0%
	Purpose of using complementary therapy		
	Preventing Disease	29	0,8%
8	Curing Diseases	299	91,2%
	Use of healthcare practices		
9	Only use complementary/alternative therapies	16	4,9%
	Using complementary therapies and medical therapies in healthcare	312	95,1%
9	Duration using complementary/alternative therapies		
	0-6 months	28	8,5%
	7-12 months	69	21,0%
	>1 year	231	70,4%
11	Frequency of using complementary/alternative therapies		
	Every day	71	21,6%
	Every week	157	47,9%
	Every month	84	25,6%
	Once a year	12	3,7%
	less than once a year	4	1,2%

Table 1 presents a breakdown of respondents, indicating a majority being female, comprising 82.3%, with the age group of 60-75 years representing 60.7%. The highest educational attainment is noted in high school graduates (39.6%), followed by those with an elementary school education (32.9%). Regarding the prevalent health

condition, hypertension emerges as the predominant affliction at 70.1%. Most participants have endured their respective ailments for 1-5 years, constituting 50.9% of the cases. Given the study's locale in West Sumatera, a substantial proportion of respondents identify as Muslim, accounting for 98.9% of the sample. Findings further reveal that during the interviews, a significant percentage of respondents reported being in good health, reaching 67.4%.

Nearly all respondents opted for complementary/alternative therapies to address Diabetes Mellitus or hypertension. Notably, a considerable portion of those utilizing complementary therapies simultaneously adhered to medical interventions prescribed by healthcare practitioners. The majority of respondents have employed these therapies for over a year, with a frequency distribution of 47% weekly, 25.6% on a monthly basis, and a cumulative 21.6% of the total respondents.

## 2. Types of complementary therapies used by chronic diseases patients

**Table 2**  
 Type of complementary therapy (n = 328)

No Types of Use of Complementary Therapies	Yes		No	
	F	%	f	%
1 Acupuncture	7	2,1%	321	97,9%
3 Aromatherapy	6	1,8%	312	98,2%
5 Spiritual Healing	16	4,9%	312	95,1%
6 Meditation	2	0,6%	326	99,4%
7 Herbal medicine	260	79,3%	68	20,7%
8 Traditional medicine Chinese medicine	9	2,7%	319	97,3%
9 Yoga	1	0,3%	327	99,7%
10 Touch Therapy	4	1,2%	324	98,8%
12 Qur'anic Therapy	9	2,7%	319	97,3%
14 Electrical therapy	8	2,4%	320	97,6%
15 Cupping Therapy	16	4,9%	312	95,1%
16 Fish Therapy	4	1,2%	324	98,8%
17 Massage	103	31,4%	225	68,6%
18 Relaxation/breathing techniques	58	17,7%	270	82,3%
19 Hypnotic Therapy	1	0,3%	327	99,7%
20 Magnetic therapy	2	0,6%	326	99,4%

Table 2 illustrates the predominant utilization of complementary/alternative therapies, with herbal medicine being the most widely employed, accounting for 260 instances (79.3%). This is followed by the utilization of massage therapy at 31.4%, relaxation therapy/respiratory therapy at 17.7%, spiritual healing at 4.9%, and cupping therapy at 4.9%. Other modalities include Qur'an therapy at 2.7%, electrical therapy at 2.4%, aromatherapy at 1.8%, fish therapy at 1.2%, and meditation as well as magnetic therapy at 0.6%. Conversely, respondents reported never using acupuncture therapy, leech therapy, music therapy, and Thai chi as forms of complementary therapies.

## Perception of the use of complementary therapies for patients with chronic diseases

**Table 3**  
 Perceptions of patients with chronic diseases towards the use of complementary therapies (n = 328)

	Strongly Disagree	Disagree	Neutral	Agree	Very Agree
1. Be well-informed about the use of complementary/alternative therapies and how to maintain a healthy lifestyle	5 (1,5%)	21 (6,4%)	35 (10,7%)	191 (58,2%)	76 (23,2%)
2. There are few side effects when using alternative therapies	7 (2,1%)	85 (25,9%)	46 (14,0%)	142 (43,3%)	48 (14,6%)

3. Obtain information about complementary/alternative therapies from health workers	35 (10,7%)	108 (32,9%)	20 (6,1%)	100 (30,5%)	65 (19,5%)
4. Complementary/alternative therapies contain natural plant formulas, which are healthier than taking drugs given by doctors	5 (1,5%)	20 (6,1%)	50 (15,2%)	188 (57,3%)	65 (19,8%)
5. Patients with DM/hypertension are more likely to use complementary/alternative therapies if there are more complementary/alternative therapy clinics	6 (1,8%)	18 (5,5%)	75 (22,9%)	176 (53,7%)	53 (16,2%)
6. Health workers need to provide opportunities for patients to use complementary/alternative therapies	0 (0%)	0 (0%)	14 (4,3%)	224 (68,3%)	90 (27,4%)
7. Believe that complementary/alternative therapies can build the body's defenses and promote healing	0 (0%)	1 (0,3%)	22 (6,7%)	230 (70,1%)	75 (22,9%)
8. The more knowledge a patient has about complementary/alternative therapies, the more likely the patient is to use them	0 (0%)	5 (1,5%)	18 (5,5%)	232 (70,7%)	73 (22,3%)
9. Patients who believe in the physical, mental, and spiritual aspects of health are more likely to choose to use complementary/alternative therapies	0 (0%)	4 (1,2%)	48 (14,6%)	194 (59,1%)	82 (25,0%)
10. When afraid or uncomfortable with the treatment/care received from health workers, they tend to use complementary/alternative therapies	0 (0%)	7 (2,1%)	14 (4,3%)	228 (69,5%)	79 (24,1%)
11. Believe that using complementary/alternative therapies is harmless	3 (0,9%)	6 (1,8%)	34 (10,4%)	207 (63,1%)	78 (23,8%)
12. The role of health workers is not only to treat diseases but also to promote health	0 (0%)	0 (0%)	6 (1,8%)	208 (63,4%)	114 (34,8%)
13. Health professionals should know about complementary/alternative therapies so that they have more benefits for patients	0 (0%)	0 (0%)	4 (1,2%)	219 (66,8%)	105 (32,0%)
14. When complementary/alternative therapies have more potent efficacy in treating health, health professionals are advised to recommend the use of complementary/alternative therapies	0 (0%)	3 (0,9%)	19 (5,8%)	229 (69,8%)	77 (23,5%)
15. Spiritual beliefs have an important role to play in complementary/alternative medicine	0 (0%)	12 (3,7%)	28 (8,5%)	191 (58,2%)	97 (29,6%)
16. Treatment systems that integrate complementary/alternative therapies with treatment from health workers are more effective.	0 (0%)	1 (0,3%)	51 (15,5%)	203 (61,9%)	73 (22,3%)

17. The disease occurs when the body is unable to heal itself	0 (0%)	4 (1,2%)	9 (2,7%)	229 (69,8%)	86 (26,2%)
18. Complementary/alternative medicine contains beliefs and ideas from conventional medicine	0 (0%)	18 (5,5%)	44 (13,4%)	195 (59,5%)	71 (21,6%)
19. The body's ability to self-heal determines the outcome of treatment	0 (0%)	0 (0%)	6 (1,8%)	228 (69,5%)	94 (28,7%)
20. An open patient-doctor relationship will determine the outcome of the treatment process	0 (0%)	0 (0%)	1 (0,3%)	221 (67,4%)	106 (32,3%)
21. Health workers who provide educational advice about healthy living result in better patient conditions	0 (0%)	0 (0%)	0 (0%)	219 (66,8%)	109 (33,2%)
22. Health workers should always have a positive attitude to be able to improve patient recovery	0 (0%)	0 (0%)	2 (0,6%)	210 (64,0%)	116 (35,4%)
23. Health professionals should consider the use of complementary/alternative therapies if conventional therapies do not produce effective results	2 (0,6%)	5 (1,5%)	21 (6,4%)	239 (72,9%)	61 (18,6%)
24. Complementary/alternative medicine treatments tend to reduce the risk of side effects	3 (0,9%)	10 (3,0%)	47 (14,3%)	205 (62,5%)	63 (19,2%)
25. Positive thinking can help you fight minor illnesses	0 (0%)	0 (0%)	7 (2,1%)	219 (66,8%)	102 (31,1%)
26. Complementary medicine must go through more scientific testing before being used by patients	9 (2,7%)	16 (4,9%)	34 (10,4%)	198 (60,4%)	71 (21,6%)
27. When a person is stressed, it is important for them to pay attention to the lifestyle aspect, as the body is able to cope with health problems on its own	1 (0,3%)	1 (0,3%)	6 (1,8%)	232 (70,7%)	88 (26,8%)
28. Complementary/alternative therapies can be dangerous because they can prevent patients from getting the right treatment	13 (4,0%)	85 (25,9%)	28 (8,5%)	148 (45,1%)	54 (16,5%)
29. Symptoms of the disease can be aggravated by depression	0 (0%)	3 (0,9%)	7 (2,1%)	214 (65,2%)	104 (31,7%)
30. Complementary/alternative therapies are only used as a last resort when conventional therapies have no effect	29 (8,8%)	109 (33,2%)	29 (8,8%)	121 (36,9%)	40 (12,2%)
31. When experiencing a series of stressful events, you will tend to become sick	4 (1,2%)	3 (0,9%)	7 (2,1%)	229 (69,5%)	85 (25,9%)
32. We recommend that patients try complementary/alternative medicine before visiting a health professional	33 (10,1%)	44 (13,4%)	49 (14,9%)	159 (48,5%)	43 (13,1%)
33. Conflicts with others do not affect health	31 (9,5%)	71 (21,6%)	17 (5,2%)	132 (40,2%)	77 (23,5%)
34. Complementary/alternative therapies should only be used in mild disease and not for more serious disease	35 (10,7%)	61 (18,6%)	49 (14,9%)	145 (44,2%)	38 (11,6%)

35. It is important to find a balance between work and relaxation to stay healthy	0 (0%)	0 (0%)	3 (0,9%)	214 (65,2%)	111 (33,8%)
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Table 3 delineates the perceptual dimensions of patients afflicted with chronic diseases pertaining to the application of complementary/alternative therapies. The prevailing consensus among respondents highlights the pivotal role of maintaining a balance between work and relaxation to ensure robust health for individuals grappling with chronic ailments. It is collectively acknowledged that the manifestation of disease is often linked to the body's inability to self-heal, and depressive states can exacerbate the symptoms of illness, particularly during periods of heightened stress. An overwhelming majority expressed the significance of adopting a lifestyle that aids the body in coping with the endured ailment, supplemented by a constructive mindset that aids in combatting minor afflictions. Interestingly, the majority of participants indicated that interpersonal conflicts held no bearing on their health status.

Notably, a majority of respondents perceive complementary/alternative therapies as formulations derived from natural plants, capable of bolstering the body's defences and enhancing overall health. There is a prevailing belief that these therapies are innocuous, engendering minimal side effects while concurrently diminishing the likelihood of adverse effects stemming from other treatment regimens. Respondents also emphasize the multifaceted role of healthcare professionals, encompassing not solely disease treatment but also the promotion of holistic well-being. The provision of educational guidance by healthcare practitioners concerning healthy living was endorsed as pivotal, with the potential to foster improved patient conditions.

Furthermore, the majority expressed the imperative for healthcare providers to acquaint themselves with complementary therapies, enabling them to deliver more comprehensive and beneficial treatment. Particularly, in instances where patients harbor apprehensions or discomfort regarding the treatment or care received from conventional health practitioners, they are inclined towards seeking solace in complementary/alternative therapies.

#### 4. Discussion

This study reveals that patients suffering from chronic diseases actively engage in the utilization of complementary therapies, albeit with mixed perceptions regarding the motivations for their usage. The study also identifies a prevalent form of complementary therapy among patients with chronic illnesses within Public Health Centres (PHCs).

##### Sociodemographic and Respondent Characteristics

The study's findings reflect a majority of female respondents falling within the age group of 60-75 years. These results are consistent with prior research by Sari et al., (2021), wherein a predominant number of female respondents over 50 years of age were observed. Notably, hypertension emerged as the prevailing ailment, with the majority of patients having endured their condition for a span of 1-5 years. This study showed that the majority of respondents who used CAM were in the age group 60-75. The percentage of respondents who used CAM was higher among patients aged over 60. This result is consistent with other studies in South-East Asian countries such as India, Malaysia, and China (Hasan et al., 2009; Huang et al., 2020; Hughes et al., 2022). One possible explanation is that younger people seek alternative and low-cost remedies for mild issues, while elderly patients tend to seek traditional medical aid for severe complications (Shahjalal et al., 2022). The study also demonstrated that the majority of females had a higher tendency to use CAM than males. A previous study conducted in the United States found that females were more likely to use CAM than males (Barnes et al., 2004).

According to a previous study, patients with a high level of education were more likely to use combination CAM. However, patients with an insufficient level of education were more likely to use CAM solely. A previous study conducted in Bangladesh, South Africa, and India found that primary school students were more likely to use CAM than those with a higher degree (Lee et al., 2004; Rafi et al., 2020; Nailwal et al., 2021). In contrast, this study found that the level of education is not related to the use of CAM since it showed that both primary and secondary school levels used CAM.

##### Complementary Therapy Usage

Concerning the utilization of complementary therapies, most respondents exhibited a motive to treat their ailments, employing these therapies for over a year and predominantly on a weekly basis. It aligns with Rasyid et al.'s research (2015), which highlighted participants resorting to a combination of conventional and complementary therapies. Similarly, as outlined by Sari et al., (2021), a substantial portion of users integrated complementary

therapies with conventional medicine, while a small fraction relied solely on herbal remedies. This trend can be attributed to the perception that both modalities synergistically enhance therapeutic outcomes.

#### *Varieties of Complementary Therapies*

In this study, the common of complementary therapy was herbal medicine and massage therapy which is consistent with the research by Hamzah, (2019) emphasizing the popularity of these approaches among chronic disease patients, particularly those with diabetes mellitus. Based an observation was conducted by of Jangid et al. (2017) and Lunyera et al. (2019) nearly 80% of the global population embracing herbal therapies within primary healthcare.

Herbal medicine is notably favored among respondents due to its inherent advantages such as reduced risk of chemical drug side effects, cost-effectiveness, and cultural acceptance (Karimi et al., 2015; Rahayu et al., 2020; Eshete et al., 2021; Hughes et al., 2022). Moreover, it is known that one of the reasons people prefer herbal medicine over other methods is its widespread availability. Herbal medicine companies make these products readily accessible to people, and they are easy to use. A study conducted in Palestine showed that herbal remedies could be effective in slowing down the progression of diseases, relieving disease symptoms, and reducing the side effects of conventional medicine (Ali-Shtayeh et al., 2013). Studies by Farzaei et al. (2017) have demonstrated the efficacy of herbal medicine in enhancing biochemical markers among diabetes mellitus patients, attesting to its value in managing chronic conditions. The relatively low occurrence of severe side effects, coupled with the beneficial attributes stemming from the presence of antioxidants, phytochemicals, polyphenols, vitamins, and minerals, further underscores the appeal of herbal therapies (Sudatri et al., 2022).

This study showed that massage is one of the most commonly used complementary therapies by participants. Globally, it is among the most widespread and safe complementary therapies. Additionally, it has been recommended for managing diabetes for nearly a century. One trial even assessed the improvement in 56% of cases of diabetic neuropathy in the lower extremities through syncardial massage. Several studies have documented the relaxing effects of massage (Pandey et al., 2011). However, Ezzo et al., (2001), found that injected insulin absorption increased after the massage, but they failed to clarify the effect of massage on blood glucose levels and the symptoms of diabetic neuropathy.

#### *Perception of Complementary Therapies*

CAM is widely used around the globe, especially among individuals with chronic conditions. The study indicates that respondents perceive complementary therapies as beneficial for overall health improvement and cost-effectiveness. The study conducted by Shahjalal indicated that chronically ill patients used CAM because it was easy to use, cost-effective, prevented adverse side effects, and managed chronic diseases. Accessibility and affordability are identified as key factors driving the use of complementary therapies, especially among patients in Indonesia who might lack comprehensive access to healthcare or insurance coverage. Additionally, one of the factors driving the use of CAM is the belief that the intervention works and can lead to different health outcomes (Fowler). It's notable that patients often resort to complementary therapies when conventional treatment options are limited (Sari et al., (2021).

Furthermore, this study showed that most respondents believed that CAM tends to reduce the risk of side effects, and many respondents believe that using CAM is harmless. This perception greatly favors CAM, especially if there are no toxic effects, interactions, or interference with conventional treatment (Bahal). According to the data, this study indicated that most respondents believed that CAM from healthcare workers is more effective. Some studies also confirmed that patients with chronic diseases were satisfied with the positive effects of complementary medicine on their health (Hasan et al., 2009; Kaur et al., 2019). Fewer side effects, a better relationship with healthcare professionals, a longer duration of care, and a variety of methods were among the reasons for patients' satisfaction with complementary medicine (Mahmoudian et al., 2012).

The National Center for Complementary and Integrative Health (NCCIH) (2023) classifies most complementary health approaches into one of two subgroups: 1) natural products, including herbs, vitamins, minerals, and probiotics, often sold to consumers as dietary supplements; or 2) mind and body practices, including a large and diverse group of procedures or techniques administered or taught by a trained practitioner or teacher. These include but are not limited to yoga, chiropractic and osteopathic manipulation, meditation, massage therapy, acupuncture, relaxation techniques, tai chi, qi gong, healing touch, hypnotherapy and movement therapies (National Library of Medicine, 2023). Respondents' perceptions emphasize that these therapies are grounded in natural plant-based formulas, capable of bolstering the body's defenses and mitigating treatment side effects.



### *Safety and involvement of health workers*

Safety concerns are highlighted, as certain herbal products may prove ineffective or even harmful, potentially exacerbating complications (Bello et al., 2012). Ensuring safety and quality standards in the use of herbal remedies is essential to safeguard public health (Ekor, 2014). Health workers play a critical role in educating patients about the appropriate and safe use of complementary therapies, necessitating a comprehensive understanding of these therapies and their potential benefits and risks. The study underscores the significance of health workers' involvement in the promotion of complementary therapies. Health workers are perceived as pivotal not only in disease treatment but also in holistic health promotion. Establishing trust, knowledge exchange, and a supportive patient-provider relationship are deemed vital in optimizing the outcomes of treatment (Adeniyi et al., 2021).

Furthermore, this study indicates that health professionals should possess a thorough understanding of complementary therapies, offering assessments of patients' medical history and conditions, addressing queries, and guiding them toward reliable information. The research underscores the necessity for healthcare practitioners to familiarize themselves with these therapies and integrate them effectively into patient care strategies.

In conclusion, the findings underscore the need for patient education on the benefits and safety of complementary therapies. It also advocates for the integration of complementary therapy education into the curriculum for healthcare students. Policymakers are urged to provide guidelines for safe complementary therapy usage while regulating their sale to protect users. Ultimately, healthcare professionals' knowledge and collaboration are pivotal in optimizing the utilization of complementary therapies within holistic healthcare approaches.

### **5. Conclusion**

In conclusion, this study sheds light on the active engagement of patients with chronic diseases in the utilization of complementary therapies, accompanied by varied perceptions regarding their motivations. Notably, prevalent trends of complementary therapy adoption within Public Health Centres (PHCs) were identified, revealing valuable insights into patient preferences and practices. Perceptions of complementary therapies are linked to accessibility, affordability, and perceived safety, with patients often turning to these alternatives when conventional options are limited. The significance of health professionals in facilitating informed usage is evident, necessitating the integration of complementary therapy education into healthcare curricula. Additionally, establishing trust and fostering open patient-provider relationships emerge as crucial factors influencing treatment outcomes.

Overall, the study underscores the dynamic landscape of complementary therapies among chronic disease patients, emphasizing the importance of patient education, healthcare professional involvement, and regulatory guidelines. In recognizing the inherent complexities and potentials of complementary therapies, healthcare systems can better adapt to the evolving preferences and needs of patients seeking holistic and comprehensive approaches to managing chronic diseases.

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### **7. Authors' contributions:**

HM : Writing for proposal, methodology, data collection, data analysis, drafting manuscript

IYK : Data collection, data analysis, drafting manuscript

DPL : methodology, data analysis, drafting manuscript

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### **9. Declaration of competing interest**

The researcher stated that this manuscript had never been published before or was not considered for publication elsewhere.

## 10. Ethics approval

This research has received ethical approval from the institutional research board: Andalas University number: No.041.laiketik/kepkepunand

## 11. Consent to participate

All respondents in the study had described information about the study and signed all statements of consent to participate.

## 12. Consent for publication

The authors give consent to publish publication-related information

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