

RESEARCH ARTICLE

Perception of Acupuncture Compared with Biomedicine among Health Practitioners

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Abstract

Compared with biomedicine held by medical experts, perspectives on acupuncture may impact how the general populace uses acupuncture. Therefore, research on the opinions of medical professionals regarding acupuncture therapy is crucial. This cross-sectional study was conducted from July to September 2022 using a questionnaire. The study participants are doctors and nurses from three clinics in Bali province who had at least one year of working experience and were willing to be research respondents. Descriptive analysis and multiple logistic regression are used to determine the participants' perceptions and predictors of their perception. Of 155 participants, the majority (64%) have a positive perception of acupuncture compared with biomedicine. Participants with prior acupuncture usage were 9.01 times more likely than those without previous acupuncture use to have positive perceptions of acupuncture compared to biomedicine (Adj OR=9.01; 95% CI; p=0.001). The results of this study show that acupuncture is seen positively by health practitioners as an effective modality, has few side effects, and is supported by science. Health practitioners' perceptions are affected by their prior acupuncture experience. It is crucial to understand how medical professionals feel about acupuncture. Medical professionals' opinion impacts every patient's decision to seek therapy because one of their duties as specialists is to offer patients clinical judgment, information, and suggestions.

Keywords: Acupuncture, biomedicine, complementary and alternative medicine, health practitioners, perceptions

Introduction

As patient-centered care, integrative medicine blends the utilization of biomedicine based on scientific evidence with complementary and alternative medicine (CAM) modalities, like acupuncture.¹ The World Health Organization has recognized acupuncture, one of traditional Chinese medicine's (TCM) main procedures, as a successful treatment for some ailments.²

Acupuncture therapy is a treatment therapy by inserting needles at mapped acupuncture points in the human body. Acupuncture points (acupoints) are electrically active cells with low electrical resistance and high electrical conductivity, so acupuncture points will conduct electricity faster than other cells.³ Acupuncture is beneficial when used with conventional medicine to treat cancer, pediatric pain, and knee osteoarthritis. Improvements in physical and psychological symptoms, quality of life, and the doctor-patient relationship were all associated with these benefits. Reports have also been of improving immunological function, lowering

medicine adverse effects, and taking charge of patient well-being.⁴⁻⁷

The World Health Organization (WHO) has acknowledged acupuncture's efficacy and urges the National Health Systems (NHS) to adopt it to alleviate the burden of some conventional therapies' high prices. It is also believed to be beneficial in response to the rise in chronic and degenerative illnesses.⁸ Despite its numerous advantages, the viewpoint of health practitioners may affect the utilization of acupuncture by the general population.⁹

The general public's usage of acupuncture can be influenced by health professionals' perspectives, particularly in Indonesia. The view of health professionals plays a significant part in every patient's choice to seek treatment because one of their jobs as experts is to give clinical judgment, information, and recommendations to patients. Therefore, studying how healthcare professionals feel about acupuncture therapy is essential. Only a few studies have examined how health professionals think about acupuncture therapy.⁸⁻¹⁰ Most studies just concentrated on the

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therapeutic effects of acupuncture.

This research is designed to overcome these gaps. This is the first study that examines the perceptions of health professionals related to acupuncture compared to biomedicine in Indonesia, especially in the province of Bali. The purpose of this research is to identify the perceptions of health workers about acupuncture compared to biomedicine.

Methods

This cross-sectional study used a three-part questionnaire from July to September 2022. The questionnaire was adapted and obtained permission from a previous study in Hong Kong by Chan et al.¹¹ The questionnaire was then translated by a certified translator and distributed via Google Forms to all respondents in three clinics. The first part of the questionnaire is demographic characteristics, the second part is previous experience with acupuncture, and the third part is the ten statements assessing the perceptions of acupuncture compared with biomedicine. All those ten items used a Likert scale of strongly agree, agree, neutral, disagree, and strongly disagree to assess the perception. The health practitioner's perception was classified into positive and negative categories.

The study population involved all doctors and nurses from three clinics in Bali province who had at least one year of working experience and were willing to be respondents. Doctors and nurses who did not fill out the questionnaire completely were excluded. SPSS version 26 was used to enter data and analysis. The characteristics of participants and perception of health practitioners were presented as frequency and proportion using descriptive statistics. The chi-square test analyzed the association between the independent and dependent variables, and the determinant factors affecting the health practitioners' perceptions of acupuncture compared with biomedicine were analyzed by multiple logistic regression.

This research was approved by the Committee of Research of the Institute of Technology and Health Bali with an ethical clearance letter number 04.0458/KEPITEKES-BALI/VII/2022.

Results

Based on the results of this study, from a total sample of 255 health workers consisting of doctors and nurses, 155 health workers were

willing to fill out the questionnaires that had been distributed. The response rate of this study was 60.78%. Table 1 shows that among 155 health workers, the majority of participants are 29 years old and above (52.3%), female (67.7%), have an education level bachelor's or above (80.6%), have a job as a nurse (65.8%), never used acupuncture previously (75.5%) and never learned acupuncture once (80.0%). The Figure shows that, out of 155 health practitioners, most participants have a positive perception of acupuncture compared with biomedicine 64%. An analysis of related factors affecting the perceptions of acupuncture compared with biomedicine is presented in Table 2. Among several factors that were analyzed,

Table 1 General Characteristics of the Health Practitioner

Characteristics	n=155 (%)
Age (years)	
<29	74 (47.7)
≥29	81 (52.3)
Gender	
Male	50 (32.3)
Female	105 (67.7)
Education	
Diploma	30 (19.4)
Bachelor or above	125 (80.6)
Job	
Doctor	53 (34.2)
Nurse	102 (65.8)
Used acupuncture previously	
Yes	38 (24.5)
No	117 (75.5)
Learned acupuncture previously	
Yes	31 (20.0)
No	124 (80.0)

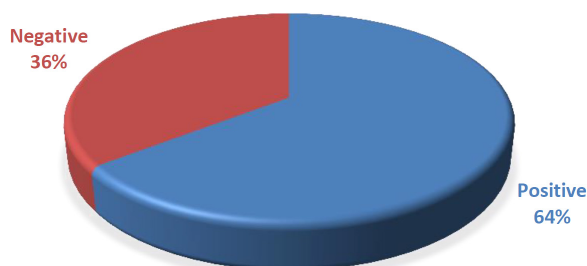


Figure Perceptions of the Health Practitioners of Acupuncture Compared with Biomedicine (n=155)

Table 2 Related Factors Affecting Participants’ Perception of Acupuncture Compared with Biomedicine

Factors	Perception		χ ²	p
	Positive n=100 (%)	Negative n=55 (%)		
Age (years)				
≥29	44 (59.5)	30 (40.5)	1.58	0.20
<29	56 (69.1)	25 (30.9)		
Gender				
Male	31 (62)	19 (38)	0.20	0.65
Female	69 (65.7)	36 (34.3)		
Education				
Diploma	20 (66.7)	10 (33.3)	0.07	0.78
Bachelor or above	80 (64)	45 (36)		
Job				
Doctor	28 (52.8)	25 (47.2)	4.80	0.02*
Nurse	72 (70.6)	30 (29.4)		
Used acupuncture previously				
Yes	35 (92.1)	3 (7.9)	16.73	0.00*
No	65 (55.6)	52 (44.4)		
Learned acupuncture previously				
Yes	22 (71)	9 (29)	0.70	0.40
No	78 (62.9)	46 (37.1)		

Note: *p<0.05 significant

two factors related significantly to participants’ perceptions of acupuncture compared with biomedicine: participants’ jobs and experience of using acupuncture previously. Both showed significant relationships (p<0.05).

Furthermore, these factors relating to the participant’s perception of acupuncture compared with biomedicine are analyzed by multiple linear regression, and the result is shown in Table 3. Participants who had experience using acupuncture previously were 9.01 times more likely to have positive perceptions of acupuncture compared with biomedicine than those who never used acupuncture before (Adj OR=9.01; 95% CI; p=0.001).

Discussion

This research found that most health practitioners

(64%) perceived acupuncture more positively than biomedicine. This finding also aligns with a previous study where health professionals viewed acupuncture favorably. They stated that acupuncture completes conventional medicine shortages by providing preventive and individualistic treatments and a patient-centered approach.^{8,9} The perceptions of acupuncture compared with biomedicine in this study included trust in acupuncture compared to biomedicine, the effectiveness of acupuncture, and side effects and costs.

Trust in acupuncture is assessed because this modality has a scientific basis and is under government regulation. Many studies have been conducted to give scientific evidence related to the therapeutic effect of acupuncture. According to a recent analysis of acupuncture systematic reviews, acupuncture had a moderate to considerable efficacy with medium to high confidence evidence in eight diseases or conditions out of the 77 ailments examined: improvement in functional communication of patients with post-stroke aphasia; relief of neck and shoulder pain; relief of myofascial pain; relief of fibromyalgia-related pain; relief of non-specific lower back pain; increased lactation success rate within 24 hours of delivery; reduction in the severity of vascular dementia symptoms; and improvement

Table 3 Factors Affecting Participants’ Perception of Acupuncture Compared with Biomedicine

Characteristics	Adj OR	p
Job	0.49	0.06
Used acupuncture previously	9.01	0.001*

Note: multiple logistic regression analysis, *p<0.05 significant

of allergic rhinitis nasal symptoms.^{12,13}

Besides the fact that this modality had been scientifically proven, trust in acupuncture was also earned because this therapy is under government regulation. Acupuncture practice is regulated under the Indonesian Ministry of Health decree No. 34 of 2018 regarding the licensing and training of acupuncture therapists. This regulation stated that acupuncture treatment can only be delivered by an acupuncturist with a minimum of three years of formal education. Acupuncture health professionals who hold practice licenses can be considered qualified and competent since they have completed at least three years of school, passed the competence exam, and participated in seminars and workshops to further their education.¹⁴

Related to a side effect of this modality, the fact that acupuncture experiences fewer adverse effects than pharmaceuticals is one of its benefits.¹⁵ A review study also supports it shows that acupuncture for migraine prevention is just as effective as many of the presently prescribed pharmaceuticals and has fewer adverse effects.¹⁶ Not only fewer side effects, but the mean costs of acupuncture treatment are also less than the cost of biomedicine in treating specific illnesses, for instance, chronic low back pain. Regarding usefulness and overall cost, acupuncture significantly differs from non-steroidal anti-inflammatory drugs (NSAIDs). The results show that acupuncture has a better cost-effectiveness ratio than NSAIDs, making it a viable alternative treatment for CLBP with a good cost-utility ratio.¹⁷

This current research reveals that among several related factors that might affect the perception of acupuncture compared with biomedicine, two factors are associated with participants' perception: job and acupuncture experience. However, based on logistic regression analysis, the most significant factor that affected the participants' perception was the experience of using acupuncture previously. It was found that health practitioners who used acupuncture once had a more positive perception of acupuncture than biomedicine.

People who have a positive perception are more likely to adopt healthy behaviors.¹⁸ In this study, health practitioners with a positive perception of acupuncture compared with biomedicine might encourage them to integrate acupuncture into their practice. Acupuncture attitudes and practices have been influenced by

a variety of circumstances, according to previous research. One of the main determinants is clinical or individual exposure to acupuncture therapy.¹⁹ The individuals' prior acupuncture treatment experiences influenced their present acupuncture usage.²⁰ The use of acupuncture was also influenced by prior success with the treatment. According to a recent study from New Zealand, people who have successfully used acupuncture are more inclined to do so in the future for a comparable problem.²¹ According to a different study, those who have had successful acupuncture treatments are more likely to benefit from acupuncture for chronic pain.²²

According to the findings of this study, acupuncture was seen by the participants who have a positive perception as a modality that is efficient, has few adverse effects, and is validated by science. Previous acupuncture experience has become the predictor that affected the health practitioners' perception of acupuncture compared with biomedicine. Health professionals who have used acupuncture in the past have a higher favorable perception of it than those who have never tried it.

Conclusions

In conclusion, this study found that most health practitioners had a positive perception of acupuncture compared with biomedicine. Experience of using acupuncture previously is a factor that influences participants' perceptions. Health practitioners' perception of acupuncture is essential, affecting how patients use acupuncture.

Conflict of Interest

The authors affirm that they don't have any conflicts of interest in this research.

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