

# What is Bafa Wubu Tai Chi, and Is It a More Effective Medical Technique than the Yang 24 Form? A Preliminary Study

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## ABSTRACT

This study summarizes the content and attributes of the relatively new (2018) Bafa Wubu tai chi form and compares it to the older (1956) Yang 24 tai chi form, which is the most frequently used tai chi form used to treat a wide range of ailments. Since Bafa Wubu is a relatively new form, not many medical studies have been done using this new tai chi tool, prompting the author to seek additional information from sources other than PubMed using Grok3, the newest version of an artificial intelligence assistant. Grok3 concluded that Bafa Wubu can be as effective as the Yang 24 form for treating many ailments, given its similar health benefits. It seems likely that Bafa Wubu is more effective for people with limited fitness, time constraints, or cognitive difficulties, due to its simplicity and lower intensity. The evidence leans toward the Yang 24 form being more effective for conditions needing more physical exertion, like weight management, or for those seeking cognitive stimulation.

**Keywords:** Tai Chi; Qigong; Yang 24; Bafa Wubu; Artificial Intelligence; Grok3

**Abbreviations:** TCM: Traditional Chinese Medicine; RS-fMRI: Resting-State Functional Magnetic Resonance Imaging; SAS: Self-Rating Anxiety Scale; SDS: Self-Rating Depression Scale; IMUs: Inertial Measurement Units

## Introduction

Tai chi and qigong are two old and effective tools of traditional Chinese Medicine [TCM]. Many studies have shown them to be effective in treating a wide range of diseases and ailments [1-50]. The most popular tai chi form used by medical practitioners to treat various ailments is the Yang 24 form [51]. That form was created by a group of tai chi masters in 1956. A newer form, Bafa Wubu, was created in 2018, and is starting to be used to treat some of the same ailments that the Yang 24 form was used to treat. A search of the PubMed database found only four studies that used the bafa wubu form to treat patients [52-55], which does not come as a surprise, given the fact that it is a relatively new form. The purpose of the present study is two-fold, first to introduce the reader to this relatively new form, and second to attempt to determine whether the new form is more effective in treating various ailments than the Yang 24 form. A prior study found that the Yang 24 form was more effective in treating fall prevention than three other kinds of tai chi [46]. Thus, it has been shown

to be one of the more effective forms of tai chi for treating various maladies. Since Bafa Wubu is relatively new, and since it takes time for a new treatment method to make it into medical journals, it was thought that using an artificial intelligence assistant might be a useful tool to find recent literature on this topic, since it might be able to find more information on this topic than what could be found in the PubMed database.

Artificial intelligence has become an acceptable tool to use in medical research in recent years [56-83] and will become more popular as AI develops and evolves.

## The Study

There are many good artificial intelligence assistants available for use these days, and many of them are updated frequently. The present study uses Grok3, which was updated a few days before the start of this study. The following instruction was given to get started.

**Instruction**

What is the origin and history of the bafa wubu tai chi form? Why is it an important form?

**Grok3 Reply (Edited)**

Grok gave a detailed reply. The form of the reply was not quite suitable for merely copying and pasting. Thus, its reply had to be edited. The next few paragraphs summarize the information Grok3 provided. The Bafa Wubu Tai Chi form, also known as “Eight Methods and Five Steps,” was compiled by the National Sports Administration of China, with its promotion beginning in July 2018. It was developed as a simplified version to make Tai Chi more accessible, drawing on the core elements of the five major Tai Chi schools (Chen, Yang, Wu, Sun, and Wu Hao). This form was created to promote fitness and traditional Chinese culture, reflecting a modern approach to an ancient practice. Bafa Wubu was designed as an alternative to the more complicated tai chi forms such as the Yang 24 form. It is significant for its ease of learning, making it suitable for beginners and those with limited time. Studies indicate it offers health benefits, particularly for lower extremity exercise and balance, and has been shown to help with mental health issues like anxiety and depression. Its endorsement by the Chinese government adds to its importance, as it is part of efforts to spread Tai Chi globally. An interesting aspect is that Bafa Wubu incorporates traditional concepts like acupoints and the five elements (metal, wood, water, fire, earth), linking physical movements to mind-body integration, which might not be immediately obvious to those unfamiliar with tai chi [84]. The number 13 is an important number in tai chi.

Thirteen is used to refer to the 13 postures in tai chi, also referred to as the 8 energies and the 5 steps [85-86]. Grok created the following chart that encapsulates the 8 energies and 5 steps [87] (Table 1). Bafa Wubu’s importance is multifaceted, reflecting its role in modern health and cultural contexts. Firstly, its simplicity makes it accessible to a broader audience, particularly those who might find traditional Tai Chi forms daunting. A blog post from Balanced Life Tai Chi [86] notes it as a “simple health practice” and an introduction to Tai Chi, suitable for all ages, which aligns with its inclusion in events like the Mass Demonstration for Kung Fu Tai Chi Day 2019. Secondly, scientific research highlights its health benefits. Studies, such as one published in PMC [88], demonstrate its effectiveness in promoting lower extremity exercise, with professional practitioners showing higher ground reaction forces and joint benefits. Another study from 2023 [89] suggests it can alleviate anxiety and depression, particularly among college students, using resting-state functional magnetic resonance imaging (RS-fMRI). Comparatively, a 2020 study found that Bafa Wubu has lower energy consumption than the 24-form simplified Tai Chi, with an average oxygen uptake of  $10.8 \pm 2.52$  ml/kg/min versus  $12.9 \pm 2.59$  ml/kg/min, making it less physically demanding and more suitable for beginners or those with lower fitness levels [90].

**Table 1:** This table, derived from detailed analyses, underscores the form’s connection to traditional concepts, providing a bridge between physical exercise and holistic health practices.

Eight Methods (Bafa)	Key Acupoint	Five Elements	Attribute
Peng	Mingmen	Water	Water
Lu	Xuanguan	Fire	Fire
Ji	Jaiji	Wood	Thunder
An	Tanzhong	Metal	Marsh
Cai	Xinggong	Metal	Sky
Lie	Dantian	Earth	Earth
Zhou	Jianjing	Earth	Mountain
Kao	Yuzhen	Wood	Wind
Five Footwork (Wubu)	Attribute	Element	Acupoint
Jin (Jibu)	Step forward	Water	Huiyin
Tui (Tuibu)	Step backward	Fire	Zuqiao
Gu (Zuogul)	Sideway step forward	Wood	Jiaji
Pan (Youpan)	Sideway step backward	Metal	Tanzhong
Ding (Zhongding)	Central equilibrium	Earth	Dantain
Sources: [87,91]			

This lower intensity, requiring about 3 minutes per set compared to 5 minutes 40 seconds for the 24-form, enhances its practicality for daily practice. Thirdly, its cultural significance is evident in its promotion by the Chinese government, which sees it as a means to preserve and export traditional culture. It was part of “The Belt and Road China Tai Chi Culture World Tour” in 2019 and 2020 [86], extending its reach to Europe and the United States. This governmental backing, through the General Administration of Sport of China, ensures standardization and global recognition, as seen in its inclusion in national fitness programs and competitions. An unexpected detail is the form’s integration with traditional Chinese medicine, linking movements to acupoints and elements, which adds a layer of depth beyond mere physical exercise. This aspect suggests Bafa Wubu is not just a fitness routine but a holistic practice, potentially appealing to those interested in mind-body wellness [87]. Moreover, its role as a competition event is intriguing for a “fitness routine,” indicating its versatility. This dual purpose-health practice and competitive sport-broadens its appeal and application, potentially influencing how Tai Chi is perceived globally [86]. To summarize, Bafa Wubu Tai Chi, compiled around 2018 by the National Sports Administration of China, represents a modern, simplified approach to Tai Chi, rooted in traditional principles.

Its importance lies in its accessibility, proven health benefits, and cultural significance, supported by governmental endorsement and

scientific research. This form not only preserves Tai Chi's essence but also adapts it for contemporary needs, making it a vital contribution to global health and cultural exchange.

### Author Comments

Grok gave an excellent reply to the instruction, although it had to be edited. At the end of its essay it listed some additional sources that were not cited, specifically [91-92]. The next step was to ask Grok to expand on the information it had already given. The instruction is given below.

### Instruction

Has it been used in medical research? If so, give some examples and cite some studies.

### Grok3 Reply

**Direct Answer:** Bafa Wubu Tai Chi has been studied in medical research, with several studies looking at its potential health benefits. Research suggests it may help reduce anxiety and depression in college students, improve physical outcomes like balance and grip strength in older adults, and promote lower extremity exercise. For example, one study found it could lower energy consumption compared to other Tai Chi forms, making it easier for beginners. Another unexpected detail is its use with artificial intelligence for real-time feedback, which could enhance its effectiveness in medical settings.

**Studies and Findings:** Studies have used Bafa Wubu Tai Chi as an intervention in randomized controlled trials, often comparing it with other exercises or using advanced tools like brain imaging (RS-fMRI) to understand its effects. For instance, a pilot study with college students showed it might reduce anxiety and depression, while another looked at its impact on older adults' mental and physical health with AI-based feedback. These studies suggest it could be a valuable tool for health improvement, especially for those with limited fitness levels.

**Medical Research Context:** The research often focuses on physiological characteristics, such as energy consumption and joint health, and mental health outcomes like quality of life. This makes it relevant for medical applications, such as rehabilitation or preventing falls in older adults. The studies are published in reputable journals like *Frontiers in Physiology and Sensors* (Basel), adding credibility to the findings.

**Comprehensive Analysis of Bafa Wubu Tai Chi in Medical Research:** This note provides a detailed examination of the use of Bafa Wubu Tai Chi in medical research, expanding on the key points for a thorough understanding. The analysis is grounded in available online resources and aims to present a professional overview suitable for enthusiasts and researchers alike, focusing on studies that have utilized this form in medical contexts.

**Background and Context:** Bafa Wubu, translating to "Eight Methods and Five Steps," is a simplified Tai Chi form compiled by the National Sports Administration of China, promoted since 2018 for fitness and cultural preservation. Its accessibility and lower energy consumption compared to traditional forms like the 24-form simplified Tai Chi have made it a candidate for medical research, particularly in areas of mental health, physical rehabilitation, and exercise physiology.

**Evidence of Use in Medical Research:** Research suggests that Bafa Wubu Tai Chi has been employed in various medical studies, with a focus on its potential therapeutic effects. The evidence leans toward its use in randomized controlled trials and cross-sectional studies, often targeting specific populations such as college students, older adults, and those with health conditions. Below are detailed examples of such studies, categorized by their focus areas.

**Studies on Mental Health Outcomes:** One notable study is "The effect of Bafa Wubu of Tai Chi on college students' anxiety and depression: A randomized, controlled pilot study" [93]. This pilot study aimed to explore the mechanism of Bafa Wubu's effects on anxiety and depression using resting-state functional magnetic resonance imaging (RS-fMRI). Conducted with 18 college students (5 males, 13 females) aged 22.50 to 24.20 years, the experimental group received an eight-week intervention, practicing Bafa Wubu five times a week for 60 minutes per session. The control group maintained normal daily life without exercise. Assessments included RS-fMRI scans, the self-rating anxiety scale (SAS), and the self-rating depression scale (SDS), with statistical significance set at  $p < 0.05$ . Results suggested potential benefits for mental health, particularly in reducing anxiety and depression, with brain imaging showing significant interactions in certain regions. Another study, "The Effect of Tai Chi (Bafa Wubu) Training and Artificial Intelligence-Based Movement-Precision Feedback on the Mental and Physical Outcomes of Older Adults: A Randomized Controlled Trial" [94], compared the effects of AI-based feedback and standard training in a 4-week Tai Chi program for older adults. Participants, aged 60 and older, were divided into three groups: an AI feedback group, a conventional feedback group, and a control group, all undergoing an 8-week schedule with three sessions per week, each including a 5-minute warm-up, 30-minute Tai Chi practice, and 5-minute cool-down.

Outcome measures included movement accuracy, balance, grip strength, quality of life, and depression, assessed pre- and post-intervention. The study found significant improvements in all groups, with the AI feedback group showing enhanced outcomes, highlighting Bafa Wubu's potential in mental health interventions for older adults.

**Studies on Physical Health and Exercise Physiology:** Bafa Wubu has also been studied for its physical health benefits, particularly in exercise physiology. "Comparative study of physiologic characteristics between the newly compiled Bafa Wubu of tai chi and 24

form simplified tai chi” [95] compared the energy consumption and physiological characteristics of Bafa Wubu with the 24-form simplified Tai Chi. The study found that Bafa Wubu has lower energy consumption, with an average oxygen uptake of  $10.8 \pm 2.52$  ml/kg/min compared to  $12.9 \pm 2.59$  ml/kg/min for the 24-form, and a Tai Chi intensity of  $50\% \pm 11.7\%$  versus  $64\% \pm 12.5\%$ . This lower intensity, requiring about 3 minutes per set versus 5 minutes 40 seconds for the 24-form, makes it suitable for beginners and those with lower fitness levels, with implications for medical applications like rehabilitation. Another study, “Newly compiled Tai Chi (Bafa Wubu) promotes lower extremity exercise: a preliminary cross-sectional study” [96], focused on its biomechanical effects on lower extremities. It analyzed ground reaction force and joint impacts in professional practitioners, finding higher ground reaction force and varying forces on the three joints of the lower extremities for different movements. This has positive significance for exercising joints, particularly for older adults or those with osteoarthritis, as referenced in related literature on Tai Chi’s benefits for leg muscle strength and function.

**Detailed Composition and Intervention Methods:** To understand its use in medical research, it’s important to note Bafa Wubu’s composition. It consists of eight techniques (Bafa), corresponding to traditional Tai Chi energies like Ward Off (Peng), Roll Back (Lu), and five steps (Wubu) including Advance, Retreat, and Central Equilibrium. These are linked to acupoints and the five elements (metal, wood, water, fire, earth), enhancing its integration with traditional Chinese medicine, which is relevant for holistic health studies. In interventions, as seen in the AI feedback study [94], the Tai Chi practice focused on the “Eight Techniques and Five Steps,” with quality control primarily assessing the accuracy of the eight hand techniques. The intervention schedule included warm-ups and cool-downs, ensuring safety and suitability for participants, particularly older adults with no prior Tai Chi experience. The AI feedback implementation used a hybrid TCN-LSTM neural network model, achieving 81% to 92% accuracy in motion prediction, detailed in supplementary materials [94] (Table 2).

**Table 2:** This table summarizes the key studies, highlighting their focus, population, intervention details, and findings, providing a structured overview for medical researchers.

Study	Focus Area	Population	Intervention Duration	Key Findings
Li, et al. (2023) [93]	Anxiety and Depression	College students	8 weeks, 5x/week, 60 min	Potential reduction in anxiety and depression, significant brain region interactions via RS-fMRI
Ma, et al. (2023) [94]	Mental and Physical Outcomes	Older adults ( $\geq 60$ )	8 weeks, 3x/week, 40 min	Improved movement accuracy, balance, grip strength, quality of life, and depression, enhanced by AI feedback
Ma, et al. (2020) [95]	Physiological Characteristics	General population	Comparative analysis	Lower energy consumption ( $50\% \pm 11.7\%$ intensity) compared to 24-form Tai Chi
Li, et al. (2023) [96]	Lower Extremity Exercise	Professional practitioners	Cross-sectional analysis	Higher ground reaction force, positive for joint exercise, suitable for rehabilitation

**Unexpected Insights and Broader Implications:** An interesting aspect is the integration of AI in Bafa Wubu studies, such as real-time feedback using inertial measurement units (IMUs) and neural network models, which is not commonly associated with traditional Tai Chi practices. This technological approach, detailed in [2], could expand its application in telemedicine and personalized health interventions, particularly for remote monitoring of exercise adherence and effectiveness. Additionally, the link to traditional Chinese medicine, with movements tied to acupoints and elements, adds a layer of depth for medical research into mind-body integration, potentially appealing to integrative medicine practitioners. This dual focus on modern technology and traditional concepts is an unexpected detail that could influence future studies.

**Conclusion:** In conclusion, Bafa Wubu Tai Chi has been utilized in medical research, with studies demonstrating its potential in mental health, particularly for anxiety and depression, and physical health, such as lower extremity exercise and energy consumption. Its use in randomized controlled trials, often with advanced methodologies like

RS-fMRI and AI feedback, underscores its relevance for medical applications, especially for vulnerable populations like older adults and college students. This form’s accessibility and lower intensity make it a promising tool for health interventions, with ongoing research likely to further elucidate its benefits.

### Author Comments

The decision to use an AI assistant was a good one. It discovered much more relevant information than could be found on the PubMed database and structured its response in a logical manner that was easy to follow. The next step was to compare the new Bafa Wubu form to the older Yang 24 form, which has become the most frequently used tai chi form in medical studies to treat patients having a wide range of ailments, in an attempt to determine whether the new form could be even more effective than the Yang 24 form. We didn’t know what to expect but were cautiously optimistic that Grok3 would be able to render some kind of opinion, however tentative. The instruction we gave it is given below.



## Instruction

The Yang 24 tai chi form has been used to treat a wide range of ailments. Would the bafa wubu form be equally effective in treating ailments? In what cases might it be more effective than the Yang 24 form? In which cases might it be less effective?

## Grok3 Reply

### Key Points

- Research suggests Bafa Wubu Tai Chi can be as effective as the Yang 24 form for treating many ailments, given its similar health benefits.
- It seems likely that Bafa Wubu is more effective for people with limited fitness, time constraints, or cognitive difficulties, due to its simplicity and lower intensity.
- The evidence leans toward the Yang 24 form being more effective for conditions needing more physical exertion, like weight management, or for those seeking cognitive stimulation.

**Comparison for Treating Ailments:** Bafa Wubu Tai Chi, a simplified form developed around 2018, appears to offer health benefits similar to the Yang 24 form, which has been widely used for conditions like arthritis, hypertension, and depression. Both forms can help with balance, mental health, and general fitness, but Bafa Wubu's lower intensity (with an average oxygen uptake of 10.8 ml/kg/min compared to 12.9 ml/kg/min for Yang 24) makes it suitable for those less physically fit or with chronic conditions.

**Cases Where Bafa Wubu Might Be More Effective:** Bafa Wubu's shorter duration (about 3 minutes per set vs. 5 minutes 40 seconds for Yang 24) and simpler movements make it ideal for:

- Individuals with limited time or difficulty learning complex sequences, such as those with cognitive impairments.
- Older adults or people with conditions like chronic fatigue, where less intensity is beneficial.
- Beginners or those needing an easier entry into Tai Chi practice.

An unexpected detail is its potential use with AI feedback for real-time monitoring, which could enhance its effectiveness in medical settings, especially for older adults [53].

**Cases Where Yang 24 Might Be More Effective:** The Yang 24 form, with its higher energy consumption, might be better for:

- Conditions requiring more physical effort, like weight loss or improving cardiovascular fitness.
- Individuals seeking a more comprehensive workout or cognitive stimulation from learning its 24 movements.

## Comprehensive Analysis of Bafa Wubu Tai Chi Compared to Yang 24 Form for Treating Ailments

This note provides a detailed examination of the effectiveness of the Bafa Wubu Tai Chi form compared to the Yang 24 form in treating various ailments, expanding on the key points for a thorough understanding. The analysis is grounded in available online resources and aims to present a professional overview suitable for enthusiasts and researchers alike, focusing on medical research and practical considerations.

**Background and Context:** The Yang 24 Tai Chi form, a simplified version created in the 1950s, is based on the Yang style and consists of 24 movements. It has been extensively studied for its health benefits, including improving balance, reducing symptoms of depression and anxiety, lowering blood pressure, and enhancing immune function. Bafa Wubu, translating to "Eight Methods and Five Steps," is a more recent development, compiled around 2018 by the National Sports Administration of China. It is a simplified form drawing from the five major Tai Chi schools (likely Chen, Yang, Wu, Sun, and Hao), designed for accessibility and fitness, with a shorter duration and lower intensity.

**Effectiveness in Treating Ailments:** Research suggests that Bafa Wubu can be as effective as the Yang 24 form for treating many ailments, given its inclusion of essential Tai Chi principles and demonstrated health benefits in recent studies. Both forms involve slow, controlled movements and deep breathing, which contribute to their therapeutic effects. However, their differences in intensity, duration, and complexity may influence their suitability for specific conditions and populations. A comparative study found that Bafa Wubu has lower energy consumption, with an average oxygen uptake of  $10.8 \pm 2.52$  ml/kg/min compared to  $12.9 \pm 2.59$  ml/kg/min for the 24-form simplified Tai Chi, and a Tai Chi intensity of  $50\% \pm 11.7\%$  versus  $64\% \pm 12.5\%$  [90]. This lower intensity, requiring about 3 minutes per set versus 5 minutes 40 seconds for the Yang 24 form, makes Bafa Wubu less physically demanding, which could be advantageous for certain individuals. Studies on Bafa Wubu have shown positive outcomes in various areas:

- **Mental Health:** A randomized controlled pilot study demonstrated that Bafa Wubu can reduce anxiety and depression in college students, using resting-state functional magnetic resonance imaging (RS-fMRI) [89]. This aligns with the Yang 24 form's known benefits for mental health.
- **Physical Health:** Another study found that Bafa Wubu promotes lower extremity exercise, with higher ground reaction force and varying joint impacts, beneficial for joint health and muscle strength [88]. A study on older adults showed improvements in balance, grip strength, quality of life, and depression with AI-based feedback, suggesting its utility in geriatric care [94].

- **Comparative Effectiveness:** A study comparing Bafa Wubu and He-Style Tai Chi in overweight male college students found both forms improved body composition and blood lipids similarly, with no significant differences between them [97]. This suggests Bafa Wubu can be equally effective for physical health outcomes.

Given these findings, Bafa Wubu appears to offer comparable benefits to the Yang 24 form for conditions like balance impairment, hypertension, depression, anxiety, and arthritis, where Tai Chi's gentle movements and mindfulness are key.

### Cases Where Bafa Wubu Might Be More Effective

Bafa Wubu's simplicity and lower intensity make it particularly suitable for certain populations and conditions:

- **Individuals with Limited Fitness or Chronic Conditions:** Its lower energy consumption ( $50\% \pm 11.7\%$  intensity) makes it ideal for people who are less physically fit, such as those with chronic fatigue syndrome, heart conditions, or mobility issues. This aligns with its design for accessibility [91].
- **Time-Constrained Individuals:** With a set taking about 3 minutes, Bafa Wubu allows for more frequent practice, which could enhance adherence and outcomes for those with busy schedules.
- **Cognitive Impairments:** Its shorter and simpler sequence (eight techniques and five steps) is easier to learn and remember, making it more practical for individuals with mild cognitive impairment or dementia, potentially improving compliance and effectiveness.
- **Beginners and Older Adults:** As an introductory form, it's suitable for beginners and older adults who may find the Yang 24 form's 24 movements challenging. Studies like the one on older adults with AI feedback highlight its potential in geriatric care.

An unexpected detail is the integration of AI-based feedback in Bafa Wubu studies, using inertial measurement units (IMUs) and neural network models for real-time monitoring, which could enhance its effectiveness in medical settings, particularly for remote monitoring and personalized interventions [94].

### Cases Where Yang 24 Form Might Be More Effective

The Yang 24 form, with its higher energy consumption and more varied movements, might be more effective in certain scenarios:

- **Conditions Requiring More Physical Exertion:** For weight management or improving cardiovascular fitness, the Yang 24 form's higher intensity ( $64\% \pm 12.5\%$ ) could provide greater benefits, as it requires more physical effort. This is supported by its longer duration and more comprehensive movement pattern.
- **Cognitive Stimulation:** Learning and remembering 24 movements may offer more cognitive stimulation, potentially benefi-

cial for conditions like mild cognitive impairment or for individuals seeking to enhance memory and focus.

- **Experienced Practitioners:** For those already familiar with Tai Chi, the Yang 24 form might provide a more challenging and varied practice, potentially leading to greater physical and mental benefits over time.

### Detailed Comparison and Considerations

To organize the comparison, consider the following table summarizing key aspects (Table 3):

**Table 3:** This table highlights the trade-offs between the two forms, with Bafa Wubu offering accessibility and lower intensity, while the Yang 24 form provides a more comprehensive and potentially more intense practice.

Aspect	Bafa Wubu	Yang 24 Form
Duration per Set	~3 minutes	~5 minutes, 40 seconds
Intensity (VO <sub>2</sub> /kg/min)	$10.8 \pm 2.52$ ml/kg/min	$12.9 \pm 2.59$ ml/kg/min
Tai Chi Intensity	$50\% \pm 11.7\%$	$64\% \pm 12.5\%$
Complexity	8 techniques, 5 steps, simpler	24 movements, more complex
Suitability	Beginners, less fit, time-constrained	Experienced, seeking intensity, cognitive stimulation
Research Focus	Recent, mental health, lower extremity	Extensive, balance, cardiovascular, mental health

For specific ailments, both forms likely can be effective, but the choice depends on individual needs:

- **Balance and Fall Prevention:** Both forms improve balance, but Bafa Wubu's simplicity may enhance adherence in older adults, as seen in studies like [98].
- **Hypertension and Cardiovascular Health:** Both can help, but the Yang 24 form's higher intensity might offer slight advantages for cardiovascular fitness.
- **Mental Health (Depression, Anxiety):** Both show benefits, with Bafa Wubu's ease of practice potentially improving compliance, as seen in college student studies.
- **Arthritis and Chronic Pain:** Both forms' gentle movements are beneficial, with Bafa Wubu possibly more suitable for those with severe joint issues due to lower intensity.
- **Parkinson's Disease:** Both can improve gait and balance, but the Yang 24 form's varied movements might offer more motor control benefits, while Bafa Wubu's simplicity aids learning.

**Unexpected Insights and Broader Implications:** An interesting aspect is Bafa Wubu's integration with traditional Chinese medicine, linking movements to acupoints and the five elements

(metal, wood, water, fire, earth), which adds a layer of depth for holistic health applications. This is detailed in [91], potentially appealing to integrative medicine practitioners. Additionally, its role in competitions and AI-enhanced feedback systems, as seen in studies, suggests it could evolve into a more technologically integrated practice, influencing future medical research and interventions.

**Conclusion:** In conclusion, Bafa Wubu Tai Chi can be equally effective as the Yang 24 form for treating many ailments, with research suggesting benefits in mental health, balance, and physical fitness. Its lower intensity and simplicity make it more effective for individuals with limited fitness, time constraints, or cognitive difficulties, while the Yang 24 form might be preferred for conditions needing more physical exertion or cognitive stimulation. Individual preferences, physical abilities, and specific health goals should guide the choice, with both forms offering valuable therapeutic potential.

### Author Comments

Grok3 did an excellent job of summarizing and comparing the relevant literature. It not only summarized the new form, Bafa Wubu, but also compared its medical benefits and applications to those of the older Yang 24 tai chi form. This study also tested the new version of Grok 3 and found that it is capable of being a good AI assistant for medical research.

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