Acupuncture Readiness Attitude Scale (ARAS): An Informal Screener for Patient Suitability for Acupuncture Treatment

ABSTRACT

The Acupuncture Readiness Attitude (ARA) is a crucial component within the realm of acupuncture therapy. While the response expectancy of acupuncture - the anticipation of treatment effectiveness - is significant, the ARA plays a pivotal role. The ARA encompasses a patient's willingness, openness, and readiness for acupuncture treatment, which can profoundly impact treatment outcomes. By prioritizing the ARA, acupuncture practitioners can enhance patient receptivity and ultimately contribute to the evolution of this ancient healing practice. This paper highlights the importance of considering the historical context in the development of acupuncture and stresses the requirement for a dedicated evaluator capable of assessing the ARA using an informal screener developed by the authors.

Keywords: Acupuncture, Effectiveness, Readiness Attitude, Response Expectancy, Screener.

Introduction

1. WHAT IS ACUPUNCTURE?

Acupuncture is a traditional medical practice (associated with Traditional Chinese Medicine of TCM for short) that has been practiced for thousands of years in China and today, it is practiced throughout the world [1]. It is often used to promote health and well-being as well as for pain relief and to treat various medical conditions. Acupuncture is believed to work by stimulating the body's natural healing processes.

While there is no official definition of acupuncture, we define the treatment as a form of alternative medicine [2] that involves the insertion of fine needles into specific points on the body to stimulate, regulate and balance the flow of vital energy, known as *qi* or *chi* (energetic balance of the body) or energy along the meridians (pathways) so as to normalize physiological functions or to treat ailments or conditions of the human body, with the ultimate goal of promoting the natural healing processes of the body (i.e., somatic wellness). The concept of meridians entails the presence of strings connecting acupuncture points, which are considered as pathways (i.e., meridians) that facilitate the flow of *qi*, thereby establishing connections among the various organs in the body system, and thus enabling the maintenance of homeostasis [3] [4].

In other words, acupuncture serves to address the body of homeostasis and reinstate equilibrium in the *qi* flow by strategically and skillfully inserting sterile fine and thin stainless-steel needles vary at different thickness and length at precise acupuncture points, also known as acupoints, running along the 12 major meridians of the human body, to unblock the flow of *qi*, restoring somatic balance and harmony [4]. These acupoints are specific locations (where acupuncturists insert fine needles, apply pressure, or use other techniques as part of TCM) on the human body, forming a

complex network of interrelated pressure points, totaling more than 365 in number [5]. Each of these acupoints holds significance as it corresponds to a distinct organ of the human body or physiological function within it. Stimulating acupoints is thought to help balance the body's energy, relieve pain, and treat various health conditions[73-75]. Acupoint selection and stimulation are fundamental principles in acupuncture treatment.

Although research studies [6] [7] [8] on acupuncture for children is limited, [9] concur that acupuncture can be a suitable treatment for children in certain circumstances such as reported in various studies, e.g., pain [10], headaches [11], and certain challenging behavioral issues and disorders, such as attention deficit-hyperactivity disorder [12, 13], autism [14, 15], and cerebral palsy [16, 17]. However, it is always important to seek guidance from a qualified healthcare professional, like a pediatrician or a licensed acupuncturist, to determine its appropriateness as well as efficacy for an individual child and the specific condition of concern.

2. THE DEVELOPMENTAL HISTORY OF ACUPUNCTURE

In the Traditional Chinese Medicine (TCM), acupuncture has a rich developmental history spanning over thousands of years depicted in table number 1:

Table 1. The Historical Development of Acupuncture in TCM

Developmental Phase	Period	Description
Phase 1. Ancient Origins (Neolithic Period)	around 6000BCE-1000BCE	The practice of acupuncture is believed to have originated in ancient China during the Neolithic Period. Early techniques involved using sharpened stones and bone needles to stimulate specific points on the body.These acupoints are specific locations (where acupuncturists insert fine needles, apply pressure, or use other techniques as part of TCM) on the human body, forming a complex network of interrelated pressure points, totaling more than 365 in number [5].
Phase 2. Bronze Age to Han Dynasty	2000BCE-200CE	During this period, the discovery of acupuncture with the use of metal needles became common and it was credited to the Chinese Emperor Huangdi [18]. The “Huangdi Neijing” or “Yellow Emperor's Inner Canon” [18] is a foundational text that describes acupuncture theory.
Phase 3. Spread & Refinement	200-600CE	Acupuncture's popularity spread to other parts of Asia, including Korea [19] and Japan [20]. It continued to evolve, with the development of meridian theory and the use of acupuncture for a wide range of health issues.
Phase 4. Tang & Song Dynasties	618-1279CE	Acupuncture became more standardized and widely practiced in China. The Imperial Medical College was established during the Jiaqing Emperor’s reign in 1827 and acupuncture was integrated into the Chinese medical system [21].

Phase 5. Introduction to the West	17th-18th Century	Acupuncture began to gain attention in the West when European missionaries and travelers to China documented their observations. According to [22], "[T]he first medical description of acupuncture by a European physician was in about 1680 by Ten Rhijne, who worked for the East India Company" (p. 6). However, acupuncture was often met with skepticism and seen as exotic [23].
Phase 6. Modernization & Globalization	20th Century	In the early 20th century, China underwent a period of modernization and attempts to integrate traditional Chinese medicine (TCM), including acupuncture, into Western-style medicine [24, 25, 26]. The popularity of acupuncture gradually spread globally.
Phase 7. Scientific Research & Regulation	Late 20th Century-Present Times	"Acupuncture was essentially unknown in the United States until President Nixon's visit to China in 1972" (p. 163) [1]. Prior to that year, James Reston of the New York Times was treated with acupuncture for pain after an appendectomy and his first-person account was widely publicized in the United States [27]. The late 20th century saw increased scientific research into the mechanisms and efficacy of acupuncture [28]. Acupuncture needles evolved to be thinner and more precise. It also gained regulatory recognition in many Western countries, leading to licensed acupuncturists.
Phase 8. Integration into Complementary Medicine		In the new millennium of the 21st century, acupuncture is commonly used alongside conventional medicine for pain management, stress relief, and various health conditions [29] [30]. It is often considered a complementary or alternative therapy.

Today, acupuncture continues to be a widely practiced and studied form of alternative medicine, with evolving techniques and applications. In 2003, the World Health Organization (WHO) released an official report published earlier [31] listing 31 symptoms, conditions, and diseases that have been shown in controlled trials to be treated effectively by acupuncture: low back pain, neck pain, sciatica, tennis elbow, knee pain, per-arthritis of the shoulder, sprains, facial pain, headache, dental pain, acute and chronic gastritis, rheumatoid arthritis, induction of labor, breech birth presentation, morning sickness, nausea and vomiting, postoperative pain, stroke, essential hypertension, renal colic, leucopenia, radiation/chemo reactions, allergic rhinitis, hay fever, biliary colic, depression, acute bacillary dysentery, primary dysmenorrhea, acute epigastralgia, and peptic ulcer. According to Passaler (2023), acupuncture can be used to treat nervous system dysregulation to help "reset the nervous system by opening the meridians within the body to promote energy and blood flow. It can induce the parasympathetic state by promoting relaxation" [32].

3. APPLICATION OF ACUPUNCTURE IN TREATMENT

As mentioned in the paragraph above, the WHO [31] list of 31 conditions through controlled trials have been studied and found to be treated effectively by acupuncture [33, 34]. Below is a summary of the common uses of acupuncture in treatment and they include the following:

1. Pain management [35, 36]: Acupuncture is often used to relieve chronic pain, such as back pain, neck pain, and joint pain.
2. Stress and anxiety reduction [37, 38]: Many people turn to acupuncture for relaxation and stress relief.
3. Headache and migraine relief [39, 40]: Acupuncture can help reduce the frequency and severity of headaches and migraines.
4. Nausea and vomiting control [41, 42]: It is sometimes used to alleviate nausea and vomiting caused by chemotherapy or pregnancy.
5. Musculoskeletal conditions [43, 44]: Acupuncture can be beneficial for conditions like osteoarthritis and fibromyalgia.
6. Allergy and asthma symptom management [45, 46]: Some individuals use acupuncture to alleviate allergy and asthma symptoms.
7. Fertility and reproductive health [47, 48]: Acupuncture may be employed to support fertility treatments and manage menstrual issues.

Although many people may have found acupuncture helpful, its efficacy or effectiveness can vary from person to person, and it may not be suitable for all medical conditions [49, 50, 51]. Therefore, as mentioned earlier, it is crucial to consult with a qualified and licensed acupuncturist or a TCM practitioner to provide professional advice to determine if acupuncture is a suitable treatment option for a patient's specific needs.

4. ACUPUNCTURE: READINESS ATTITUDE AND RESPONSE EXPECTANCY OF EFFECTIVENESS

There are two important factors involved in patients' perception of acupuncture: (1) Readiness attitude toward embracing acupuncture as a positive treatment, and (2) the response expectancy of effectiveness of the acupuncture, which can vary from person to person. In the former, some people may have a positive and open attitude, embracing acupuncture as a complementary or alternative approach to healthcare [52, 53, 54]. In the latter, there are others who believe in the potential benefits of acupuncture within the Traditional Chinese Medicine (TCM), which also includes herbalism (herbal medicine), qigong and taiqi (meditative movement therapy), tuina (Chinese therapeutic massage), and dietary therapy as remedies and holistic approaches to mind-body (also known as *noosomatic*) wellness or mindfulness-bodyfulness connection. As a result, this may explain the positive response expectancy of the effectiveness of acupuncture, whether or not true or placebo effect, as reported in several studies [55, 56, 57].

The term *response expectancy* (also known as outcome expectancy),as mentioned above, refers to a person's expectations about his/her own emotional and physiological response [58] or cognitive appraisal of oneself in relation to a situation and may produce important clinical changes in patients who seek treatment in acupuncture [59]. In fact, Mao et al (2007) developed a simple questionnaire, Acupuncture Expectancy Scale (AES), to quantify the relationship between response expectancy and clinical outcomes [59]. Using placebo and sham acupuncture as control procedures, their study found "that both real and placebo or sham acupuncture produce statistically significant and clinically important changes when compared to no treatment or standard/enhanced medical care" (p. 372) [59]. It is important to take note that placebo acupuncture and sham acupuncture are both control procedures used in research to assess the specific effects of acupuncture. The key difference between them lies in their intent and application as depicted in table number below:

Table 2. Key Differences between Placebo and Sham Acupuncture

Placebo Acupuncture	Sham Acupuncture
❖ Placebo acupuncture involves using real acupuncture needles and inserting them at non-acupuncture	❖ Sham acupuncture uses a variety of techniques to deceive the participant, such as retractable needles, blunt-

points, such as in random or superficial locations. ❖ The intention is to mimic the sensation of acupuncture without targeting traditional acupuncture points or meridians. ❖ Participants may still experience sensations like pricking or tingling, but the treatment is not expected to have therapeutic effects.	tipped needles, or devices that don't penetrate the skin. ❖ The primary aim is to create an illusion of acupuncture without any actual penetration of the skin. ❖ Participants should not experience any physiological effects or sensations associated with real acupuncture.

In both cases, the goal is to create a control group that receives a treatment that appears similar to acupuncture but lacks its therapeutic components. Moffet (2009) in his review found that sham acupuncture might be as efficacious as true acupuncture [60]. However, Zhang et al. (2016) cautioned that it was too early to say as studies on acupuncture remained inconclusive [43]. Researchers [62, 63, 64] have used these control groups to compare against the group receiving real acupuncture, helping to determine the true effectiveness of acupuncture treatment beyond the placebo effect.

As explained by Mao et al.(2007) the findings of their study [59] suggested that the effect seen in placebo/sham acupuncture group could not be entirely attributed to either regression to the mean or natural disease processes [64]. Therefore, Mao et al. (2007) argued "that the 'non-specific' effect (i.e., response expectancy) of acupuncture must be responsible in part for patients' clinical response" (p. 372) [59].

There are also many others who may approach acupuncture with skepticism [66, 67], particularly if they come from cultures or medical backgrounds that prioritize Western medicine [68, 69,70]. They might be hesitant to accept acupuncture or TCM treatments without scientific validation or may have concerns about safety and efficacy. However, we (the authors of this paper) feel that the readiness attitudes toward acupuncture can be influenced by cultural, personal, and medical factors. Besides, they also feel that readiness attitude is more important than the expectancy of effectiveness of acupuncture since past studies suggested that true and placebo acupuncture also had shown significant improvement in treatment. More importantly, this is because a patient's openness and receptiveness to the treatment process can influence the therapeutic outcomes. Hence, it is better (if not, essential) to engage in open discussions with healthcare professionals because it is followed by 'informed decisions' about incorporating acupuncture (or TCM) into a patient's healthcare regimen.

In one study using randomized controlled trial, Collier et al. (1995) investigated the possible influence of patient attitudes towards and knowledge of acupuncture on treatment outcome [71]. The study involved 41 pain patients/participants. Twenty-five of them completed a semi-structured interview prior to treatment that included the following: (1) Short-form McGill Pain Questionnaire; (2) questions regarding (i) the source of participants' information on acupuncture, (ii) their preparation for treatment; and (iii) knowledge and attitude. The remaining 16 participants received only the Short Form McGill Pain Questionnaire. All the participants again completed the pain questionnaire approximately one week following their last acupuncture session. The study showed that discussing attitudes and views prior to treatment did not have any effect on outcome. The participants were found to have low knowledge scores, but mainly positive attitudes toward acupuncture treatment. Almost two thirds of the sample felt inadequately prepared for their treatment. Statistical analysis disclosed that neither attitudes nor knowledge influenced response to acupuncture.

In another study done by Mano and Davies (2009), it investigated parental attitudes toward acupuncture for their children [72]. Findings of the study suggested that parents'

experience with acupuncture and their numerous concerns regarding the treatment, regardless of its perceived effectiveness, play an important role in their consideration of acupuncture for their children. Yang et al. (2015) and Mano and Davies (2009) recommended the need to raise awareness of acupuncture and its application as complementary and alternative medicine, to better monitor the treatment safety [8, 72], to provide unbiased advice, and to discuss treatment expectations and misconceptions. Following these recommendations will benefit the acupuncture practitioners in their professional service.

5. ACUPUNCTURE READINESS ATTITUDE SCALE (ARAS)

We have designed a 40-item questionnaire - Acupuncture Readiness Attitude Scale (ARAS) - to measure a patient's readiness attitude toward or suitability for acupuncture treatment in terms of whether the patient meets a set of predefined specific criteria. Presented in plain English, the 40-item screener is suitable for children, adolescents and adults. The ARAS can be done by proxy (i.e., parents or guardians) if a child seeking acupuncture treatment is unable to understand and/or complete it. Older respondents should not have any problem in completing the questionnaire. They have to choose the option that best reflects their feelings or experiences, with options ranging from "Strongly Disagree" (1 point) through Disagree (2 points), Neutral (3 points), and Agree (4 points) to "Strongly Agree" (5 points).

Instruction: Please answer honestly, and your responses will help determine your readiness to explore acupuncture as a treatment option. Indicate your level of agreement with the following statements by circling the appropriate choice of your response on the scale below:

1. Acupuncture is a treatment I am willing to explore.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
2. I believe acupuncture can help with my health concerns.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
3. I am open to trying alternative therapies like acupuncture.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
4. I have heard positive feedback about acupuncture from others.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
5. I am not comfortable with the idea of acupuncture needles. [R]
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
6. I trust the expertise of acupuncturists.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
7. I am interested in holistic and natural healing methods.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
8. I believe in the potential benefits of balancing energy in the body.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
9. I am not willing to invest time and effort in acupuncture treatments. [R]
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
10. Acupuncture aligns with my personal health and wellness goals.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
11. Acupuncture has the potential to improve my overall health and well-being.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
12. I believe that acupuncture can effectively relieve pain and discomfort.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
13. Acupuncture can complement traditional medical treatments.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
14. I trust that acupuncture can help alleviate stress and anxiety.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
15. I lack confidence in the ability of acupuncture to enhance energy and vitality. [R]
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree

16. I believe that acupuncture can be an effective treatment for specific health conditions.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
17. I am open to using acupuncture as part of my healthcare routine.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
18. Acupuncture treatments can improve my quality of life.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
19. I am unsure if acupuncture can be a safe and beneficial option for managing health issues. [R]
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
20. Overall, I have a strong belief in the effectiveness of acupuncture.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
21. I am comfortable with acupuncture as a treatment option.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
22. I feel at ease when I enter an acupuncture clinic.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
23. I am confident in the skills of my acupuncturist.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
24. The acupuncture process is a relaxing experience for me.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
25. I trust that acupuncture will help improve my health.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
26. I have a poor understanding of how acupuncture works. [R]
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
27. I am comfortable discussing my concerns with my acupuncturist.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
28. I feel safe during acupuncture treatments.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
29. Acupuncture has a negative impact on my overall wellness. [R]
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
30. I would recommend acupuncture to others as a healing option.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
31. Acupuncture is a treatment option I would consider.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
32. I am worried about the pain associated with acupuncture needles. [R]
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
33. I believe acupuncture can effectively alleviate my specific health issues.
    - Strongly Disagree (1) - Disagree (2) - Neutral (3) - Agree (5)
34. I am comfortable with the idea of acupuncture being part of my treatment plan.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
35. I am concerned about potential side effects or risks associated with acupuncture. [R]
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
36. I would prefer acupuncture over other conventional medical treatments.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
37. I have confidence in the skills and expertise of acupuncture practitioners.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
38. I think acupuncture is a holistic approach to wellness.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
39. I am open to incorporating acupuncture into my overall health and wellness plan.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree
40. I would recommend acupuncture to friends or family.
   - Strongly Disagree; Disagree; Neutral; Agree; Strongly Agree

The 40 items in the screener are categorized under four subdomains and they are scored on a 5-point Likert rating scale, ranging from "Strongly Disagree" (Score = 1 point) to "Strongly Agree" (Score = 5 points), based on a patient's personal beliefs, preferences, and experiences. Analyzing these scores will help the test administrator understand the patient's attitude and willingness regarding acupuncture.

Scoring scheme: There are four subdomains in the ARAS administration. Take note that [R] stands for reverse scoring for that item. The score per subdomain ranges from minimum score of 10 to maximum score of 50. The average cut-off score per subdomain is 25. The higher the score (above the average cut-off score), the more receptive is the patient to acupuncture for that subdomain.

Subdomain 1 (Items 1 to 10): Willingness to Try Acupuncture
Subdomain 2 (Items 11 to 20): Belief in Acupuncture's Effectiveness
Subdomain 3 (Items 21 to 30): Comfort with Acupuncture Process
Subdomain 4 (Items 31 to 40): Concerns and Preferences

The total minimum score on the ARAS is 40. Its total maximum score is 200. The total average cut-off score is 100. The higher the score (above the total average cut-off score), especially above the average cut-off score, the more receptive the patient is to the overall acupuncture treatment.

The ARAS has yet to be trialed and standardized. Readers are encouraged to use the ARAS without reservation and we welcome their feedback and sharing of their findings with us. We can be reached via our respective email addresses provided at the beginning of this paper.

6. THE DIFFERENCES BETWEEN THE TWO SCALES: ARAS & AES

The Acupuncture Readiness Attitude Scale (ARAS) and the Acupuncture Expectancy Scale (AES) are two distinct tools that can be used in acupuncture research and practice. While the AES addresses one component of bio-behavioral mechanisms of acupuncture (i.e., response expectancy), the aim of the ARAS is to address another factor in bio-behavioral mechanisms, namely readiness attitude (perception, prior experience, comfort level with the idea of acupuncture). Like the AES, the ARAS is another tool that looks at non-specific effect of acupuncture not covered by AES, thereby has the potential to expand understanding of these components.

There are the key differences between them as shown in Table 3 below:

Table 3. Comparison between ARAS and AES

Factors	Acupuncture Readiness Attitude Scale (ARAS)	Acupuncture Expectancy Scale (AES)
Purpose	❖ The ARAS is designed to assess a patient's readiness and willingness to try acupuncture. ❖ It measures the patients' attitudes, beliefs, and openness to the idea of receiving acupuncture treatment.	❖ The AES is used to gauge a patient's expectations regarding the effectiveness of acupuncture treatment. ❖ It assesses their beliefs about how acupuncture will impact their specific condition or symptoms.
Focus	❖ ARAS focuses on the patient's general attitudes and readiness to embrace acupuncture as a treatment option.	❖ AES concentrates on the patient's expectations regarding the outcomes of acupuncture treatment, such as pain relief, stress reduction, or improvements in specific health issues.
Measurement	❖ ARAS typically includes questions related to the	❖ AES assesses the patient's expectations by asking

		patient's perceptions of acupuncture, prior experience, and their comfort level with the idea of acupuncture.		about their beliefs in acupuncture's ability to alleviate their particular symptoms or conditions.
Application	❖	ARAS is often used in research or clinical settings to identify patients who are more likely to be open to trying acupuncture as part of their healthcare regimen.	❖	AES is commonly employed to evaluate how patients' expectations may influence their treatment outcomes and to tailor acupuncture treatments accordingly.

These tools help practitioners in acupuncture better understand their patients' attitudes and beliefs, which can inform the acupuncture treatment process. Ascertaining the level of patient pre-treatment readiness can also be a clinically useful tool to understand the overall complex social-behavioral component of acupuncture modality.

7. CONCLUSION

Readiness attitude for acupuncture (hence, our reason for developing the ARAS) is often considered more important than response expectancy of its effectiveness (i.e., the AES) because a patient's openness and receptiveness to the treatment process can influence the therapeutic outcomes. There is a fourfold rationale behind this premise: Firstly, in terms of psychological factors, a patient's readiness attitude encompasses his/her overall mental and emotional state leading up to the acupuncture session. This can affect the patient's level of relaxation, stress, and anxiety, all of which can impact the body's response to acupuncture. Next, we regard the therapeutic relationship (including trust) between a patient and an acupuncturist as being crucial in treatment using acupuncture. A patient who is ready and open to the treatment is more likely to establish a positive rapport with the acupuncturist, which can enhance the therapeutic process. Thirdly, we are fully aware that both true and placebo (as well as sham) acupuncture can produce improvements in patients. The placebo as well as sham effect demonstrates the power of a patient's mind in healing. Readiness attitude can enhance this placebo and/or sham effect, making the patient more receptive to his/her body's own healing mechanisms. Lastly, there is individual variability, i.e., the response to acupuncture can vary greatly among the patients. Readiness attitude may influence how a patient's body responds to the treatment, making it more or less effective for him/her.

In summary, while both readiness attitude (ARAS) and response expectancy (AES) play their respective roles in the effectiveness of acupuncture, it is a patient's readiness attitude that determines whether acupuncture will yield therapeutic success. A positive psychological state fosters a healthy therapeutic relationship and influences the healing mechanisms of the patient's body.

COMPETING INTERESTS
Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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Details of the AI usage are given below:
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