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MANAGING KNEE PAIN THROUGH ACUPUNCTURE: EVIDENCE FROM BANDUNG CLINICAL PRACTICE

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ABSTRACT

Knee joint pain is a common musculoskeletal complaint that may lead to functional limitation and reduced daily comfort. In Indonesia, acupuncture is widely applied as a non-pharmacological therapy; however, reports from routine clinical practice remain limited. Objective: This study aimed to describe the implementation of acupuncture care and its outcomes in managing knee joint pain in an acupuncture therapist practice in Bandung. Methods: This study used a qualitative case study design. A patient with chronic knee joint pain underwent acupuncture treatment biweekly for ten sessions. Data were collected through clinical observation, patient-reported pain intensity measured by the Visual Analogue Scale (VAS), and the documentation of functional changes during treatment. Results: The pain level dropped steadily from VAS 7 at the beginning to VAS 0 at the end. The patient also said that their daily activities were easier whilst there were no negative effects. According to Traditional Chinese Medicine, the problem was cold–damp Bi syndrome, which helped choose the right points and treatment plan. Conclusion: Acupuncture care based on Traditional Chinese Medicine pattern differentiation showed clear pain relief and improved function in knee joint pain, which supports its use in everyday clinical settings.

Keywords: Acupuncture, Knee Joint Pain, Cold–Damp Bi Syndrome, Clinical Case.

INTRODUCTION

Knee joint pain often results from degenerative changes which may progress into osteoarthritis where cartilage gradually decays, synovium becomes involved, ligaments are strained and joint function is reduced (Peat et al., 2001). However, in clinical practice the patient often reports chronic knee pain with stiffness, crepitus, swelling and a reduced range of motion. These symptoms usually worsen with activity and improve with rest, which suggests that there is sublethal mechanical trauma to the joint (Mishra & Shrivastava, 2020; Yu et al., 2021).

However, pain does not consistently reflect functional limitation and studies reported that about fifty percentage of patients who suffers from knee pain present without any evidence of limited movement (Cubukcu et al., 2012; Helminen et al., 2016). Especially, as older people age leading to an increased prevalence of obesity, knee pain has the potential to reduce walking limitations and free living (Walimbe et al., 2022),

emphasizing the need for early treatment and exercise therapy in addition to conventional care.

Work-related exposure can exacerbate this problem, especially for individuals who spend long periods standing or performing repetitive physical tasks. n routine care, these patients may continue to report persistent or recurrent knee pain even after medical treatment or physiotherapy, suggesting that symptom control is not always sustained in the long term (Yin et al., 2022). Pharmacological therapy—particularly analgesics and non-steroidal anti-inflammatory drugs—remains widely used because it can provide short-term relief, yet prolonged use may raise gastrointestinal and cardiovascular concerns (Tu et al., 2021). When pain is not managed effectively, functional decline may continue and the risk of progressive joint damage and disability becomes more relevant, strengthening the case for long-term strategies that are tolerable and sustainable.

In Traditional Chinese Medicine called *Bi* Syndrome, pain and difficulty moving are attributed to blocked or stagnant *Qi* and blood. Exogenous factors like wind, cold and dampness are regarded as significant etiologies which may act together with internal disharmony. In application, this approach encourages a personalized evaluation and point selection (frequently local knee points augmented by additional points that replicate the leading pattern) so that treatment is geared towards the patient's presentation rather than formulaic (Kawakita & Okada, 2014; Luo et al., 2023).

Integrative healthcare has been studied extensively and yet, a significant portion is based on the literature from controlled trials or experimental settings that provide little detail in to how care is carried out within the context of routine clinical practice. Therefore, there is still a lack of available data about the profile of patients treated via care pathways in everyday acupuncture care as well as on perceived effects. This is relevant in the day-to-day clinical environment where patients frequently present with a repeat episode, with previous management and work-related commitments that influence clinical decision making and long-term care (Burke et al., 2006).

This article fills the gap by providing an information on how acupuncture therapy is performed in managing joint knee pain in a practice of an acupuncturist in Bandung, and this has not been widely discussed in literature of acupuncture especially in Indonesia. This study employs a qualitative case study methodology by examining a single patient receiving acupuncture treatment, utilizing data gathered from clinical observation, patient-reported pain responses, and functional alterations throughout the treatment process. This article aims to clarify acupuncture care and its effectiveness in relieving knee joint pain within an acupuncture therapy practice in Bandung.

LITERATURE REVIEW

Acupuncture is increasingly used as a non-pharmacological option for knee joint pain, particularly when symptoms are linked to osteoarthritis. Prior research indicates that acupuncture may help ease pain, support joint movement, and improve patient comfort. These benefits are often explained through neuromodulatory effects, including endogenous analgesic activity and endorphin-related pathways (Cai et al., 2024;

Vickers et al., 2018; Witt et al., 2006).

RESEARCH METHODS

Data were collected throughout care with the use of continuous physiological monitoring, patient-reported responses to pain and data on functional knee mobility as well as functional participation in regular daily basis. The degree of pain was measured using the Visual Analogue Scale (VAS), an enduringly popular and reliable instrument used to measure subjective perceptions of pain in acupuncture-like trials. Description of the functional status was based on range of motion and activity tolerance documented in clinical notes, providing the study to demonstrate clinically significant changes other than pain scores (Periyachishreepriya et al., 2024; Teixeira et al., 2018). This holistic approach reflects typical clinical practice, in which specific presentations and activity demands may impact treatment response (Jun et al., 2020; Kong et al., 2018).

Acupuncture care was delivered as part of routine practice, scheduled twice weekly over a five-week period. Point selection was guided by clinical assessment and symptom presentation, incorporating local knee points and supportive points as indicated. Standard acupuncture procedures were applied, including needle insertion, retention, and post-treatment evaluation, and electroacupuncture was used as an adjunct modality when clinically indicated and documented accordingly.

Data analysis was conducted descriptively by comparing clinical observations and patient-reported responses across sessions. Changes in pain intensity and functional status were examined chronologically to identify patterns of improvement or persistence over the course of care. The patient participated voluntarily and provided informed consent prior to data collection; personal identifiers were removed to maintain confidentiality, and the case was reported in accordance with ethical principles and routine clinical standards.

RESEARCH RESULT

Table 1. Participant Therapy Schedule

Therapy Stage	Date	Assignment
1	Tuesday, 7th Oct, 2025	10.00–12.00 AM
2	Saturday, 11st Oct, 2025	
3	Tuesday, 14th Oct, 2025	
4	Saturday, 17th Oct, 2025	
5	Tuesday, 21st Oct, 2025	
6	Saturday, 25th Oct, 2025	
7	Tuesday, 28th Oct, 2025	
8	Saturday, 1st Nov 2025	
9	Tuesday, 4th Nov 2025	
10	Saturday, 8th Nov 2025	

Source: Rearch Data, 2025

This study was conducted at an acupuncture practice in Bandung, Indonesia, from October to November 2025, where the patient experienced knee joint complaints. The patient criteria for this case study were a 60-year-old patient who periodically complained of pain in the right knee joint, experiencing discomfort that interfered with daily activities, especially during or after physical activity. In each case, the patient did not receive any other treatment at the same time as the acupuncture therapy. Therefore, this case study can illustrate the patient's baseline condition and the subsequent clinical course of the acupuncture treatment provided in this practice.

Table. 2 Acupuncture Treatment Results

ACUPUNCTURE EXAMINATION (*Wang, Wen, Wun, Qie*)		
1	**Tongue Muscles / Body of the Tongue**	In Therapy sesions 1 to 10, Red tongue muscle examination, there is nothing significant
2	**Tongue Membrane**	During therapy sessions 1–3, the tongue coating was consistently recorded as greasy white tongue coating. From therapy sessions 4–10, the tongue coating changed and remained consistent as white tongue coating with slight greasiness across all subsequent sessions.
3	**Primary complaint**	In sessions 1–2, pain remained severe (VAS 7). It decreased to around VAS 5 by sessions 3–4, with a marked drop at session 6 (VAS 4). Sessions 7–8 fluctuated slightly (VAS 2–3), and by the final session the pain resolved completely (VAS 0).
4	**History of Current Diseases**	The pain has been felt since 7 months ago, it gets worse when I feel cold and tired, the pain relief after taking a threatment.
5	**Conditions of Disease Occurrence**	Pain in both knee joints especially pain and stiffness are *Bi* syndrome due to Cold–Dampness
6	**Complaints of Taste/Sensation in the Stomach**	Abdominal pain below the umbilicus was reported only during sessions 1–2. From session 3 onward, the abdominal pain showed improvement and was no longer reported in subsequent sessions.
7	**Defecate**	Regular bowel movements once a day every morning and no problems
8	**Acupoint palpation**	*Heding (EX-LE 2), Neixiyan (EX-LE 4), Xiyan (EX-LE 5), Ququan (LR 8), Xuehai (SP 10), Sanyinjiao (SP 6), Zusanli (ST 36), Fenglong (ST 40):* In stage 1, there is discomfort at the point of palpitation. Then, stage 2 until 10 were comfortable on palpation.
9	**Pulse palpation**	Pulse examination indicated a deep pulse with normal rate, reduced amplitude, and moderate strength, accompanied by slippery and wiry pulse qualities.
ACUPUNCTURE DIAGNOSIS		
10	**Disease**	Knee joint pain

11	**Syndrome**	Cold–Damp *Bi* syndrome
		TREATMENT PLAN
12	**Therapeutic Principles and Methods**	The therapeutic principles were to relieve pain, expel Cold–Damp pathogens, and promote the circulation of *Qi* and Blood along the meridians. The treatment method applied was tonification using moxibustion.
13	**Selection of Therapeutic Instruments and Materials**	The instruments and materials used included filiform acupuncture needles (1 cun and 1.5 cun), moxa, gloves, cotton, 70% alcohol, a kidney dish with lid, forceps, needle tray, safety box for used needles, sphygmomanometer, and stethoscope. Moxa and 70% alcohol were used for therapeutic application and sterilization.
14	**Acupoint Selection and Manipulation**	*Heding (EX-LE 2), Neixiyan (EX-LE 4), Xiyan (EX-LE 5), Ququann (LR 8), Xuehai (SP 10), Sanyinjiao (SP 6), Zusanli (ST 36), Fenglong (ST 40)*. Tonification was performed using moxibustion.
15	**Treatment Schedule**	The therapy was administered twice per week, for a total of 10 treatment sessions.
16	**Recommendations and Advice**	1. Avoid direct exposure to cold wind. 2. Perform regular joint mobility exercises to prevent stiffness due to prolonged relaxation. 3. Maintain adequate hydration, approximately 1.5–2 liters of water per day (6–8 glasses). 4. Avoid placing pillows or bolsters under the knee joint during sleep. Apply warm compresses using a towel or a bottle filled with warm water to the painful joint; topical applications such as balm or eucalyptus oil may also be used.

Source: Rearch Data, 2025

Clinical Assessment Findings

A clinical examination was performed utilizing the four diagnostic techniques of Traditional Chinese Medicine: inspection *(Wang)*, hearing and smelling *(Wen)*, inquiry *(Wun)*, and palpation *(Qie)*. Upon examination, the patient was observed to be attentive and completely cognizant, exhibiting a stable posture and a normal facial complexion. The tongue examination indicated a pale-pink tongue of normal size, with teeth marks and a thin, greasy white covering, devoid of fissures or cyanotic patches, and demonstrating acceptable hydration. The findings indicated the existence of moisture with cold attributes.

The auditory and olfactory evaluation revealed intelligible speech and normal respiration, with no unusual odors, cough, or hoarseness seen. An inquiry disclosed a seven-month history of bilateral knee joint pain characterized as stabbing and intermittent, worse by fatigue, extended standing, cold exposure, and damp circumstances, and

alleviated by rest and warming interventions. Moderate edema surrounding the knee joints and restricted mobility during physical exertion were noted. The baseline pain level, assessed with the Visual Analogue Scale (VAS), was graded at 7, signifying severe pain. The patient indicated a preference for warm beverages and exhibited sensitivity to cold, so reinforcing a chilly habit. The occupational history revealed extended periods of standing and repetitive physical exertion, leading to mechanical strain on the knee joints, alongside environmental exposure to cold and wet conditions in both the working and residential settings.

Palpation indicated that pressure on the knee joint elicited a sensation of comfort instead of pain, implying a deficient pattern. The pulse examination revealed a deep, narrow, weak, and tense pulse, indicative of cold and deficient traits. The illness was diagnosed as a cold-damp *Bi* syndrome with an underlying deficit pattern impacting both knee joints, based on the synthesis of evidence from four diagnostic methodologies and eight concepts.

Acupoint decisions

Treatment principles focus on pain relief, expulsion of cold-damp pathogens, and promotion of yang tonification to restore warmth and circulation to the knee joint. Point selection is based on a combination of local symptomatic points around the knee and systemic support points to address the underlying pattern. This approach is based on references in the acupuncture literature, particularly the clinical frameworks described by Ikeda and Okabe (2022) and Maciocia (2015), which emphasize the integration of local and distal points according to syndrome differentiation rather than relying on specific symptomatic treatment.

The acupuncture points used included *Heding (EX-LE 2)*, *Neixiyan (EX-LE 4)*, *Xiyan (EX-LE 5)*, *Ququan (LR 8)*, and *Xuehai (SP 10)*, selected to address localized pain, stiffness, and impaired joint movement. These were complemented by distal and regulatory points—such as *Sanyinjiao (SP 6)*, *Zusanli (ST 36)*, *Fenglong (ST 40)*, *Guanyuan (CV 4)*, and *Waiguan (SJ 5)* to support spleen and kidney function, resolve dampness, improve *Qi* and blood circulation, and enhance overall functional recovery. This combination is consistent with acupuncture literature, where local interventions are reinforced by systemic regulation to achieve more sustained clinical improvement (Giovanni Maciocia, 2015; Masakazu Ikeda; Somei Okabe, 2022).

The collected acupuncture data were then identified and reduced by selecting findings with diagnostic value. For outcome reporting, only sessions with significant changes on the pain scale (VAS) are presented. The results are presented as tabel below.

DISCUSSION

During the initial consultation in October 2025 at an acupuncture therapy clinic in Bandung, a 60-year-old patient reported experiencing persistent bilateral knee joint discomfort that had recurred for several months. The preliminary TCM evaluation indicated a propensity for deficit accompanied by cold involvement. Upon examination *(Wang)*, the patient was completely alert but exhibited signs of tiredness and a subdued demeanor, while maintaining an upright posture—

indicating that *Qi* and blood were still reasonably preserved. The tongue examination revealed a pale-pink body with indentations from teeth and a thin white coating, a pattern commonly associated with cold-related manifestations of chronic musculoskeletal pain (Witt et al., 2006). Upon inquiry *(Wun)*, the patient articulated discomfort and stiffness that worse with tiredness, extended standing, and exposure to cold, yet alleviated with rest and warming interventions. This study suggest that acupuncture is beneficial for controlling pain intensity and joint function in patients with chronic musculoskeletal knee joint disorder. These are mediated by physiological processes, such as endogenous opioid system activation, demonstrating the role of acupuncture in chronic knee pain within clinical setting (Liu et al., 2024; Zhong et al., 2025).

These findings are consistent with the acupuncture diagnosis of cold-damp Bi syndrome affecting both knee joints. Bi syndrome often indicates discomfort due to qi and blood restriction in the meridians, which commonly manifests as pain, heaviness, stiffness, or limited mobility in the muscles, tendons, and joints. The clinical logic was coherent: symptoms ameliorated with warmth and rest, but cold and exercise consistently exacerbated them, and there was an absence of significant redness or heat at the pain site—characteristics indicative of a cold-dominant pattern rather than a heat presentation.

The diagnosis became more convincing when considered alongside accompanying signs. The patient reported sensitivity to cold weather; the tongue coating remained thin and white; and the pulse was tense—features consistent with the common description of cold-damp Bi in the TCM literature (Sim Kie Jie, 2008). The medical history also indicated repeated exposure to cold conditions, including air conditioning and prolonged cold weather. In TCM theory, cold invasion can impair Yang Qi and reduce the body's warming and defensive capacity *(Wei Qi)*, making obstruction of *Qi* and blood in the meridians more likely and pain more persistent. Tongue and pulse indicators—thin white coat and tense pulse—have also been described as compatible with cold patterns and an underlying deficiency tendency (Giovanni Maciocia, 2015).

Point selection was then arranged to address both the symptom site and the underlying pattern. Local symptomatic points—*Heding (EX-LE 2)*, *Neixiyan (EX-LE 4)*, *Xiyan (EX-LE 5)*, *Ququan (LR 8*), and *Xuehai (SP 10)*—were used to target knee pain, stiffness, and local stagnation, with the aim of improving circulation of qi and blood around the joint (Sim Kie Jie, 2008). These local points functioned as practical anchors for symptom relief and movement comfort.

Differential (causative) points were added to more directly address cold and dampness. *Guanyuan (CV 4)* was utilized to bolster Yang Qi and eliminate cold; *Zusanli (ST 36)* to enhance *Qi* and blood while promoting warming effects and general analgesia; *Fenglong (ST 40)* to alleviate dampness; *Waiguan (SJ 5)* to counteract external pathogenic influence and facilitate circulation; and *Sanyinjiao (SP 6)* to fortify the spleen and enable broader regulation of blood and movement, including pain relief (Giovanni Maciocia, 2015; Sim Kie Jie, 2008). This exemplifies the conventional approach of addressing both the root and the manifestation, rather than

depending solely on localized needling.

Treatment was given twice a week over several sessions, which is in line with the idea that knee pain management works best when done in 6 to 10 sessions. The pain level went down from VAS 7 at the start of the study to VAS 6 after the third session. It then went down even more, to VAS 4, by the sixth session. The patient also said that after treatment, they felt lighter when they walked, and there were no bruises or other negative effects at the needle sites. By the last session, the pain had gone away (VAS 0), and the discomfort, which was only mild and could be handled with rest and warming measures, was only triggered by cold.

The clinical course suggests that a pattern-oriented diagnosis and a combined local–distal point strategy, delivered with an adequate treatment frequency, can accompany meaningful reductions in pain and improvements in functional comfort. The trajectory in this case is in line with reports that structured acupuncture courses can reduce knee pain and support joint function in chronic knee conditions (Galantino et al., 2009; Teixeira et al., 2018).

CONCLUSIONS

The aim of this article was to describe how acupuncture care is delivered and what outcomes are observed in managing knee joint pain within a routine acupuncture therapist practice in Bandung. In line with that objective, the case shows that a pattern-based approach—formulated as cold–damp Bi syndrome with a deficiency tendency—can be translated into coherent clinical decisions (assessment-driven point selection and structured session planning) and is accompanied by a clear clinical trajectory toward symptom resolution. In practical terms, the care pathway documented here suggests that acupuncture, when applied consistently and guided by TCM diagnostic reasoning, can support pain control and functional comfort for knee joint pain in a real-world setting, which is the central finding sought by the study.

Going forward, the next step is to strengthen documentation beyond a single-case description. Future work should extend this approach into a small case series with standardized reporting of functional indicators and follow-up to examine whether improvement is sustained after treatment ends, while also comparing different point combinations or integrating acupuncture with other non-pharmacological strategies. These steps would help clarify which elements of the care pathway matter most, and provide a more robust practice-oriented evidence base for knee joint pain management in Indonesian clinical contexts.

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