

JOURNEY INTO HEALING: THE TRANSFORMATIVE EXPERIENCE OF SHAMANIC HEALING ON WOMEN WITH TEMPOROMANDIBULAR JOINT DISORDERS

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Objective: To evaluate participants' perceptions of illness, healing process, and experience of effects from shamanic treatment as reported from in-depth interviews.

Theoretical Framework: Consistent with a whole systems research model, qualitative methods were used to evaluate the outcomes and experiences of clinical trial participants. Quantitative results are reported elsewhere.

Method: Twenty participants completed five visits with a randomly assigned shamanic practitioner and completed pretreatment and posttreatment in-depth interviews conducted by trained, qualitative researchers.

Context: Some physical and psychological symptoms associated with temporomandibular joint disorders (TMD) may be indicative of the shamanic definition of soul loss. Because this was the first clinical trial of shamanic healing for TMD pain, a mixed-methods approach enabled researchers to capture a wide range of participants' experiences.

Participants: Eligible volunteers were women aged between 25 to 55 years, naive to shamanic healing, with a confirmed diag-

nosis of TMD and a pain level of three or higher on the Research Diagnostic Criteria Axis II questionnaire.

Data Collection: For consistency, interviewers followed a guide that allowed individual experiences to emerge. Interviews lasted about one hour, were recorded, and professionally transcribed.

Analysis and Interpretation: Following standard qualitative analysis procedures, researchers developed and applied thematic codes to transcribed text of interviews. Coded text was reviewed to generate summaries of thematic content.

Main Results: Although participants described physical changes, three times as much text was devoted to changes in self-awareness, capacity for coping, improvement in relationships, and taking better care of themselves. Their experience describes a process of transformation.

Key words: Shamanism, TMD, chronic pain, spiritual healing, transformational experience, qualitative research

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INTRODUCTION

Temporomandibular joint disorders (TMDs) are chronic, nonprogressive pain conditions affecting the temporomandibular (TM) joint and surrounding tissues.¹⁻⁴ Temporomandibular joint disorders are primarily found in young and middle-aged adults and are nearly twice as common in women.^{5,6} About one third of adults are affected at some time in their life⁷; about 5% of affected people will seek care. Individuals with TMD may experience a range of symptoms, including facial pain, jaw-joint pain, headaches, earaches, dizziness, limited mouth opening, and clicking or popping sounds in the jaw joint. In addition to physical pathology, stress, depression, disability, and dysfunctional illness behaviors are characteristic of many patients with TMD.^{8,9} Patients least likely to respond to allopathic treatment are those with

the most marked biological responsiveness to external stressors and concomitant emotional and psychosocial difficulties.⁹⁻¹⁴

While interviewing women with TMD for a previous study,¹⁵ we noticed that, in addition to having physical symptoms of TMD, study participants also shared other characteristics. They had a great deal of stress in their lives and often indicated a sense of being dispirited—commonly described as not feeling “present in their bodies”—or that something was missing. These symptoms are consistent with soul loss, a condition treatable within the paradigm of shamanic healing.¹⁶⁻¹⁹

In the shamanic worldview, poor health or illnesses may be due to both spiritual and nonspiritual factors.^{16,17,19-22} Shamans worldwide believe all living beings have a soul—the vital essence required for life.^{16,19,22,23} The soul is the spiritual, nonphysical part of us that is the center of our emotions, feelings, and spirit. Part of this vital essence can “split away” when there is trauma (eg, an accident or loss of a loved one). A person suffering from soul loss may feel such things as feeling dead inside, suffering memory gaps, feeling out of body or listless, or experiencing frequent physical illnesses. For a shamanic practitioner, it is important to find those essences, help them to heal, and bring them back into the person to help make him/her “whole” again.¹⁶ In contrast, contemporary psychology recognizes “dissociation,” where people “split off from their body” at times of

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stress. In this context, the patient is helped to regain or describe the lost experience and can be healed.¹⁶

Shamans recognize two realities reflecting an individual's state of consciousness. People in the "ordinary state of consciousness" perceive "ordinary reality"; those in the "shamanic state of consciousness" enter into and perceive "nonordinary reality" (NOR). Shamanic practitioners in contemporary Western practice enter the shamanic state of consciousness through the use of sonic driving (drumming or rattling).²⁴⁻²⁸ Entering into NOR, and the experiences while in this state, comprise a shamanic "journey." *Shamans*, by definition, are individuals who journey with discipline in NOR with the specific intent of helping others.^{16,19,23,29}

The primary task of the shamanic practitioner (SP) is to help restore wholeness to the individual or community. Shamanic practitioners use their connection with helping spirits to clear out blocking or "negative" intrusive energy (extraction), bring back soul essences lost during trauma or illness (soul retrieval), and engage in spiritual healing (guided visualization, ritual, etc).^{16,17,22,23}

The shaman's "preverbal imagery" for treating health problems may permit imagination to act directly upon the physical substrate of tissues, organs, and cells through a system of biological communication that evolved prior to language.^{22,30-32} This healing information and energy is transmitted to the participant through verbal and nonverbal communication.

Shamanic healing is interactive, enabling individuals to regain their "power" and participate in their own healing. Treatment may also involve helping the patient to integrate spiritual healing by modifying behavior, diet, or lifestyle, engaging in counseling, or incorporating ritual or spiritual practice (eg, learning to journey) into their lives.

Working in cooperation with SPs who practice in the Portland, Oregon, community, the authors developed a shamanic healing intervention for women with TMD. The intervention was standardized to five visits with an SP, during which a preestablished set of shamanic treatments (soul retrieval, etc) could be done. We structured the protocol as a whole systems intervention,³³ allowing SPs to follow the instruction of their spirit guides and tailor treatments to individual needs of participants. We used both qualitative and quantitative methods to study treatment outcomes, since shamanic healing had not previously been evaluated in a clinical trial. Our strategic purpose for including qualitative methods was to explore in-depth the experiences of participants expressed in their individual narratives.

We expected discussions in interviews to focus on treatment-related changes in TMD, given the significant changes in pain participants reported in the standard pain assessments during the study and in follow-up.³⁴ At the final treatment visit we found significant decreases from baseline in three primary outcomes: usual pain ratings declined from 4.96 to 2.70 ($P < .0001$), worst pain from 7.48 to 3.60 ($P < .0001$), and functional impact of TMD from 3.74 to 1.15 ($P < .0052$). Levels of pain and functional impact continued to show slight, though nonsignificant, declines from end of treatment to nine months after treatment ended. This suggests that gains experienced during treatment persisted for at least nine months following treatment.

Because of our own and others' complementary and alternative medicine (CAM) research experience, we expected some discussion of the other effects of treatment, such as sleeping better.³⁵⁻⁴⁰ When we reviewed the qualitative data, however, we realized that participants had much less to say about the effects of treatment on TMD symptoms (approximately 108 passages of text) than they did about all the other effects of treatment (approximately 321 passages of text).

As we read our participants' words, the reasons for this discrepancy became clear. Participants described changes in their emotional, spiritual, and physical selves as well as greater awareness of self and environment. They also reported being able to change aspects of their lives, including their relationship to TMD pain. These changes, which we have characterized as transformation, were generally so profound that the physical changes they experienced were dwarfed in comparison.

One way to understand transformation is to ground the analysis in the patient's phenomenological experience of healing.^{41,42} This approach has been taken by other CAM researchers to explore transformations resulting from CAM therapies that may elude conventional methods of determining efficacy. Attending to the narrative accounts of participants provides at least partial access to this phenomenological world,⁴¹⁻⁴³ and can provide insights into the process by which it occurs. In this paper, we draw upon participants' descriptions of the multiple dimensions of change to characterize and define the transformative experience.

METHODS

Study Overview

As shamanic healing had not previously been evaluated in a clinical trial, we conducted this study as a phase I trial in which we tested the feasibility of participant recruitment, and protocol development and implementation. A phase I clinical trial design tests the feasibility of an intervention not previously evaluated and does not require a control or comparison group.

We recruited participants from the general population in Portland, Oregon, using descriptive flyers and newspaper advertisements. To be eligible, women needed to be aged between 25 and 55 years, be naive to shamanic healing, have an existing diagnosis of TMD confirmed by a trained and calibrated dental examiner at initial screening, and score a pain level of three or higher on the Research Diagnostic Criteria Axis II questionnaire (a calibrated dental examiner has received training in how to conduct a particular procedure—in this case, the TMD research diagnostic exam—and has been tested, or calibrated, against a "gold standard" examiner).⁴⁴ Of the 23 participants who entered the trial, 20 completed treatment (Figure 1).

As described in Vuckovic et al,³⁴ the intervention consisted of five visits with a randomly assigned shamanic practitioner. Each of the 20 participants who completed treatment received at least one soul retrieval. During a soul retrieval, an SP journeys into NOR to find the essences that have split away, asks them if they are ready to return, and brings back the gift that was lost when that part of the person's vital essence left. The SP brings that essence into ordinary reality and gently blows it into the heart of the participant, then tells the participant what gift has returned.

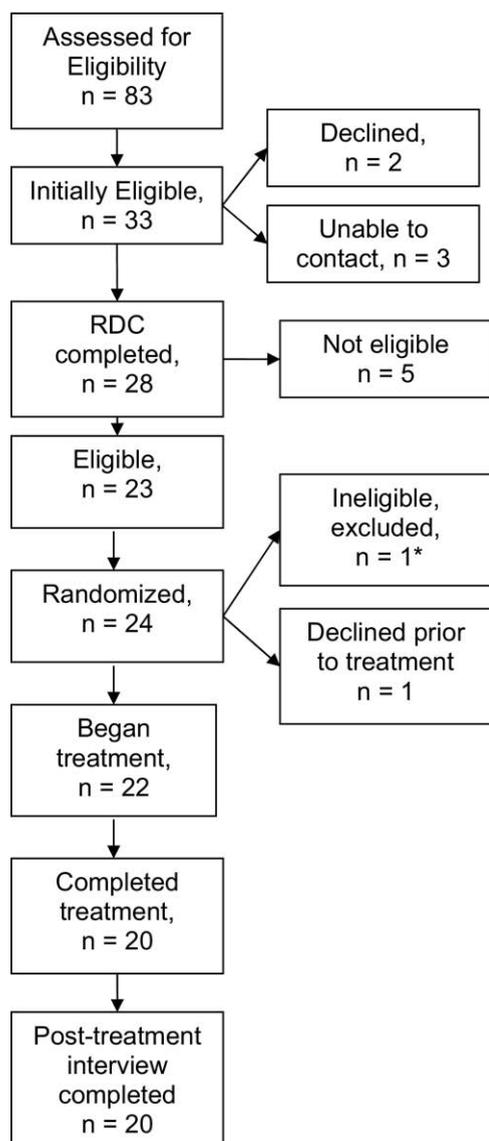


Figure 1. Consort diagram, Vuckovic Transformative Experience of Shamanism. *One person was randomized in error. RDC, Research Diagnostic Criteria Axis II questionnaire.

The SP, through ceremony or ritual, and guided visualizations or journeys, helps the participant to integrate her new sense of wholeness at the sessions following the soul retrieval. Seventeen of the 20 participants who completed treatment received guided meditations and visualizations from their SPs to aid integration.³⁴

The SPs all had current, Western shamanic healing practices in the Portland metropolitan area and had been in practice for at least two years. They had all received extensive training from the Foundation for Shamanic Studies and from Sandra Ingerman, an internationally known teacher of soul retrieval and author of several books on shamanic healing.^{16,29,45}

The study was approved by the Institutional Review Board of Kaiser Permanente Northwest, the institutional home of the

Center for Health Research. The investigators and shamanic practitioners all received formal training in human subjects protection and the Health Insurance Portability and Accountability Act of 1996 before beginning work on the project.

Qualitative Data Collection Methods

Qualitative methods are considered effective strategies for documenting and analyzing unique, complex social phenomena such as experiences with shamanic healing.⁴⁶⁻⁴⁸ Qualitative methods elicit the participant's perspective and are therefore particularly useful in defining the range and variability of beliefs, behaviors, and experiences of study populations, as well as the natural language people use to discuss these issues.^{46,47,49} To this end, participants' experiences with shamanic healing were captured and analyzed through a series of in-depth, semistructured, qualitative interviews.

Participants were interviewed twice: once following their first contact with the SP and once following the final treatment visit (Figure 1). Interviews were held at the Center for Health Research or at a location identified as convenient by the participant. Interviews lasted about one hour and were conducted by authors (N.V., J.S., and M.R.), all trained qualitative interviewers. These authors developed and used an interview guide to increase consistency across interview sessions, while also allowing for individual participant experiences to emerge.⁵⁰⁻⁵² Interview questions elicited discussion about the participants' experiences with TMD, reactions to SPs, experience of receiving shamanic treatment, and sense of how study treatments affected their TMD symptoms and other areas of their health and lives. Following each interview, the interviewer recorded field notes, including observations about the participant and summaries of salient issues raised during the discussion.

Qualitative Analysis Methods

Interviews were audio taped and professionally transcribed for analysis by using the analytical approach of representing, describing, and interpreting data.^{53,54} Analysis was guided by a specific set of data reduction and reconstitution techniques, including a process of coding passages of text to identify responses to specific questions and to capture emergent themes.⁵³⁻⁵⁷ Themes in qualitative analysis refer to concepts or patterns of response that appear across a majority of participants. An example of a theme in this research is the repeated reference to a change in perception about one's life or life purpose.

To develop a coding list, each member of the team read one of the transcripts and marked passages of text with codes indicating its content. Some codes denoted questions posed to interview participants during the discussion (eg, TMD symptoms), whereas others represented themes that emerged during the discussions (eg, experiences of increased awareness). We compared coding notes, discussed areas of disagreement, and together developed a coding scheme for use with subsequent transcripts. Coded text was subsequently reviewed through an iterative process, resulting in refined themes. ATLAS.ti 5.0 (Scientific Software Development, Berlin, Germany) qualitative analysis software was used to electronically code and manage data and to generate reports of coded text for analysis.⁵⁸

Table 1. Shamanic Treatment Effects: Participant Descriptions of Outcomes (N = 20)

Participants, No.	TMD Symptom Effects	Other Physical Effects	Transformation Effects
13	✓	✓	✓
3		✓	✓
2	✓		✓
1	✓	✓	
1		✓	
Totals	16	18	18

TMD, temporomandibular joint disorders.

Following the process described above, two of the study authors (M.R. and J.S.) reviewed each interview transcript for evidence of the three outcomes of interest: effect on TMD symptoms, other effects on health, and transformational effect. Passages of text were labeled based on their content. For example, descriptions of reduced facial pain or tension were labeled “effects on TMD symptoms,” whereas reports of improvements in energy, sleep, or other conditions were counted as “other effects on health.” For the transformational category, transcripts were examined for statements reflecting greater sense of spirituality or connection to higher self; feeling a reconnection to a true or authentic self; making changes in life priorities; experiencing a different and improved relationship with self, others, and the world around them; and experiencing a greater sense of self-love and self-care. Participants may have reported multiple or just one type of transformational effect.

RESULTS

All 20 participants experienced some type of positive effect from the shamanic treatment, with no participant reporting “no benefit at all” from treatment (Table 1). Thirteen participants reported experiencing positive improvements in all three categories: effects on TMD symptoms, other effects on health, and transformational effects. Of the seven remaining participants, six endorsed positive changes in at least two of the three effect categories. One participant reported a positive effect in only one outcome category.

During interviews, we also asked participants about their negative experiences or what they liked least during shamanic treatment. The majority (n = 16) indicated they did not experience any negative effects of the shamanic treatments, although some did describe the shamanic visits as very intense, often triggering an “emotional release” during or following the visit. Most viewed this “hard work” as a positive, important, and necessary part of their shamanic experience and personal healing journey.

We discuss the positive findings on effects of shamanic treatment in more depth below: (1) the physical effects of treatment related to TMD symptoms and other physical health effects, (2) the transformative effects of shamanic treatment, and (3) mechanisms of healing. Quotes were selected to illustrate themes in participants’ own words but are not the total number of quotes related to each theme. Our presentation of results is intended to

represent the narrative style in which participants told their stories of transformation.

Physical Effects of Shamanic Treatment

TMD symptoms. Standardized measures administered at the end of treatment showed significant reductions in pain, functional impairment due to pain, and depression.³⁴ During postintervention interviews, most participants also said the shamanic treatments had a beneficial effect on their TMD symptoms. Participants described their jaw and/or face as feeling better and being more relaxed in the face, jaw, neck, and shoulders. Some explained that activities such as talking and kissing were now less painful. One fifth (n = 4) said their headaches were less frequent and less intense. Mentioned less often were reduced clenching or grinding and less use of splints and mouth guards. Four felt they experienced minimal to no change in their TMD symptoms. Of these, two said their TMD symptoms had not changed, whereas two others felt that their healing was hampered, either because of external circumstances or because the treatment period was too short.

Participant study identification numbers are noted at the end of each quote:

With my TMJ, I do feel like my face is more relaxed—my smiles come really naturally. It doesn’t feel as if there is any tension there anymore. (2008)

I’m usually in a lot of pain after eating a salad, and I haven’t noticed that—that’s been a change. And the headaches are definitely less. (2037)

Relationship to TMD. Following treatment, the majority of participants reported viewing their TMD condition differently. They described a greater sense of optimism about their condition and, in general, believed their condition would not become any worse in the future. For some, TMD no longer consumed their thoughts and actions on a daily basis. Overall, most experienced a shift from feeling that their condition was controlling or managing their life, to a feeling that they were now in control of their condition.

I don’t feel as scared as I did before I went through these sessions. Before I felt a kind of gloom . . . and now I feel like it [the TMD] is going to be okay. (2020)

I do not feel like my TMD will get worse. I feel like I know what to do and have faith. (2010)

A greater sense of empowerment or control over their condition underlay participants’ increased sense of hopefulness and optimism about TMD. They described feeling a greater belief in themselves and their abilities to manage their condition. Some experienced a change in perspective and understanding of their condition. They understood TMD as not just a mechanical, physiological, or stress-induced condition, but rather as one that included energetic, spiritual, and emotional components.

I think I am seeing it [TMD] more as an energetic thing as opposed to so much of a physiological thing. (2005)

You know what has changed is my relationship to it [TMD] . . . I feel more integrated and more easy with it. I just feel more hopeful and like I can see it from a farther distance. (2025)

Other effects on physical health. In addition to improvement in their TMD symptoms, most participants described other improvements in their physical health and well-being. The two most commonly cited improvements were in sleep and energy level. Three participants also felt their menstrual cycle was positively affected: one described an “easing” of menstrual symptoms, and two others reported resuming menstruation after cessation for several months. Improvements in other types of body pain, such as low back pain, were experienced by three participants. Improvements in the immune and digestive systems were also attributed to the shamanic treatments.

I don't feel as tired now as I did before [treatments]. I think that when I'm sleeping, I am actually sleeping better. (2077)

I hadn't had my period in three months. She [the shaman] did this whole visual thing . . . putting her hand over my belly. Three days later I got my period . . . I have a strong sense that that had a lot to do with it [menses returning]. (2008)

I felt like my digestion got so much better! I gained back weight, which I've been trying to do for a year and a half. (2010)

Transformative Effects of Shamanic Treatment

Part of the healing described by participants included descriptions of transformations of self that occurred as a result of shamanic treatment. These clustered around four areas of reconnection: (1) to the spiritual/transcendent self, (2) to a more authentic self, (3) to mind-body awareness, and (4) to a social self.

Connecting to the spiritual/transcendent self. Participants described new or greater awareness of spiritual and mystical forces. Most often, this was expressed as a greater connection to animals and nature, which could involve an unusual or unexpected sighting of an animal or feeling an intense connection to the land. Connection to the spiritual self also manifested as more vivid dreams or connections to a higher guidance. For some, the guidance came in the form of connection to a “higher self.” For others, guidance came from outside themselves, either as synchronistic events or in the form of a guiding spirit or power animal.

My hope was that I would experience some transformation or shifts in perception . . . I feel like I have had that. There's been a great turning, actually, in how I view myself and my ability to relate to the spiritual. (2014)

I would say probably the most impact was spiritually. I think it kind of opened doors or pathways to a higher spirituality. There is more of a connectiveness with your conscious understanding . . . I started developing [my] guides so when I meditate, I can visualize that. (2021)

I was just standing in this room the other day and felt like [spirit guide] was standing right next to me, which is just so amazing . . . It's like he's just sort of there. It's great! He's very powerful. He's not serious, but he's somber. It's almost like I feel like he has a message for me or something, but like a guardian. (2064)

Connecting to a more authentic self. Participants described how the process of shamanic healing led them to a new sense of themselves and their life's purpose, a “remembering” of a sense of self that allowed them to transition from intellectually knowing something to trusting their instincts more fully.

The shaman has given me confidence . . . to trust my instincts. In order to learn about yourself, you have to start listening to yourself and figuring out your reactions to things and your instinct and talk about your gut feeling. (2083)

It was like something threw me off and now I'm down this path. I came back to balance and came back to normal. It's like I am trusting myself more than ever before. I've been just kind of letting life go. (2010)

Because of their (re)connection to self, participants said they had a new awareness of life purpose—expressed by one as “the big picture of me”—and a greater ability to prioritize “the details of life.”

I judge my life differently and my priorities are different. . . . Nothing has externally changed . . . but I feel less stuck in those areas and ready. Actually, so many things have changed for me on a personal level, in terms of my life priorities and what I want, what I feel like and what I'm kind of here for. (2014)

Whether newfound or just remembered, participants expressed a greater awareness of the connections between physical, emotional, psychic, and psychological selves. They described how this greater self-awareness opened the way for positive life changes in terms of life priorities, coping ability, and empowerment to take better care of themselves.

Awareness of mind-body connections. Participants described a heightened awareness of the connections between their thoughts and emotions, and jaw clenching and pain. They also began to pay attention to when the stress began and how it manifested in other parts of their body. This attention helped them understand more about the roots of their stress as well as ways to reduce it. Along with greater awareness came a sense that old patterns of stress or behavior could be released or modified.

Participants described how shamanic healing increased their capacity to cope or introduced them to new coping skills.

Doing the shamanism has actually helped me discover myself and learn my body's reaction to what is happening in my life. . . . Through shamanism I've been able to combat the anxiety and the stress immediately, because I start noticing, don't clench your jaw. Relax. (2083)

It's more like, I can undo this knot because I can be consciously aware of it. I can take that knot, just feel it and accept that that now is there. And then I can say, okay, now that I feel the tension I can relax this tension and just let it go and just kind of visualize it and kind of will it to be less tension. (2052)

Participants reported dealing better with stress in their lives and shifting what they were "willing to allow and not willing to allow" in their lives. As a result, they felt more revitalized and able to cope with life events and could take better care of themselves, emotionally and physically. Several reported starting or increasing meditation practices, getting more exercise, or letting go of unhealthy behaviors. Others reported doing things that were fun, such as singing and dancing.

I guess it has opened me up to a new realm of possibility for me. It's like, okay, you can leave that behind and this is where you can go with it. Nobody can make me happy. It's my job to make me happy. It's my job to care for myself as well. (2079)

I'm not so taxed when I come home. I feel like I'm thinking more about the big picture of me and my life rather than just coming home from the day and being so tired that I have a beer and go to bed. (2064)

Other positive coping and attitude changes resulted from letting go of past images of the self as victim. For example, one participant stated that prior to treatment she had "become hopeless, a victim." During treatments, the shaman helped her gain "back strength to address things" she hadn't talked about before.

Having to fall back into the habit of clenching when I was having some problems. . . . I really felt angry, but then I was like, wait a minute! This is when you're supposed to use all of the things that you've learned, so step up and figure it out. . . . I'm not so much of a victim any more. (2083)

I feel like the emotional and the anger and the trauma aspects of whatever was contributing to my quote/unquote TMD disorder is not there any more. (2064)

Connecting to the social self. Participants often spoke about healing wounds in their personal relationships, both present and past. The change was often spoken of as a shift in the way the participant looked at the relationship or a "letting go of negative patterns" in the relationship. Changes in relationships were sometimes associated with a sense of increased confidence about

expressing opinions or communicating with others, and sometimes manifested as reestablished relationships with partners.

My social life has been slowly increasing. I've slowly started letting new people in, which is definitely a change for me. (2083)

I've noticed shifts in my relationships. I mean, they seem really subtle, but I've definitely seen shifts. Some of it is shifts in my thinking, shifts in what I'm willing to allow in my life and what I'm not willing to allow in my life. (2058)

For some, family relationships were healed through the resolution of feelings of pain or trauma associated with sexual or physical abuse by a relative. For others, the shamanic treatments helped to reconnect with relatives who were no longer alive.

The things with my dad were weighing me down and it had weighed me down for a long time . . . I was letting it [abuse by father] weigh me down and stress me out, and just dragging it along like a big old chain with a boat attached to it; dragging it behind me and I needed to let the chain go. (2077)

My grandfather was really important to me and died when I was twelve. What he told me [during shamanic treatment] . . . was to be easier on myself. Of course, having a loved one say it to me—my grandfather—it's very comforting and it's very useful . . . I feel like that gives me more energy. I'm spending less time gnawing on stuff and just kind of like doing what I've got to do to love myself more and accept myself. (2025)

Mechanisms of Healing

When asked in postintervention interviews how they thought treatment-related healing or change had occurred, most were unsure and sometimes struggled for words to describe their thinking. Participants were able to identify as mechanisms movement of energy, personal intention to change, or the intuition of the SP and ability to connect with them. Some identified more than one mechanism for the healing.

I don't have any idea what is happening when that energy starts to move. . . . I don't even begin to understand energy like that. I just know that it woke me up and got me clear. (2024)

I stopped clenching my jaw. I stopped sucking my tongue. I stopped doing ALL of those things. That's when the light went on that shamanism is not some spell. It's an awakening for you, especially trying to identify what makes you tick. (2083)

In a way it's like a reflective listening, but you really didn't have to say anything. It's like reflective feeling. . . . That, to me, was more of the whole validating and reinforcing that these are life forces. (2052)

Participants described a reconnection to their inner selves in either a spiritual or psychological context. They spoke about expanding their awareness, connecting to a higher power, or accessing their inner self. Although they might use terms familiar to them because of religious training or beliefs, the spiritual nature of shamanic healing was not seen as connected to a particular faith or belief.

I think it works on all kinds of levels. . . . What could happen is that you get all of these things to integrate and you get the spirit integrated and then you're able to have an effect on things that you usually don't think you would be able to affect directly. So that you can connect with the spiritual level of things that's hard for us to usually get in touch with. (2072)

Even though it's a little different than my base belief is, I think it is a spiritual practice. . . . When you're petitioning your higher power, God or whoever you want to call him, He respects that no matter who that comes from. I think she was a spiritual healer and I think that all of that came into play. (2079)

I think that the whole thing about Shamanic practices and journeying is that it gets you unstuck. . . . You have access to your inner self, or it brings you to other beings and other things that guide you so it kind of gets you unstuck. (2020)

Participants who had traveled other healing paths—psychoanalysis, spiritual practices—talked about shamanic healing as something similar but distinctly different than these experiences.

It was so much more all encompassing than I was even aware of. . . . In therapy I'm aware of all of my mind and body connections, but it was really great how much we just addressed sort of old wrong habits and patterns I've had that I had no idea, really that were so embedded in the subconscious. (2064)

What is great about them is they are not a counselor. A counselor is somebody who is specially trained to analyze your issues for you and then explain them to you or jog your own reckoning of your issues. A shaman actually comes down to your level and feels with you. So it's an empathy and not sympathy. (2013)

DISCUSSION

We used a mixed-methods design for this phase I clinical trial, combining qualitative and standardized, quantitative measures to gain a holistic understanding of the experience and outcomes of shamanic treatment. Evidence from our participants indicates that treatment catalyzed a transformation that began with changes from within (eg, energetic shift or changes in sense of life purpose) that led to changes in other aspects of their lives (eg, self-care practices or relationships). After participants experienced these changes, they realized that changes had also occurred in their relationship to—and experience of—pain.

Based on participants' descriptions, we developed this working definition of transformation:

1. The individual experiences a shift in consciousness.
2. A perception that the shift, experienced as greater awareness, is such that their view of themselves/the world is now different and there is no going back to the old view.
3. The shift is not just mental; it incorporates the body, psyche, and spirit.
4. The experience of the shift is concomitant with purposeful and conscious changes in lifestyle, behavior in relationships, a changed sense of their view of who they are in this world, and an enhanced perception of an authentic self that connects meaningfully with life and the earth.

The experience of transformation has only recently become a subject of scientific study, although it has been documented in spiritual and religious traditions throughout history.⁵⁹⁻⁶⁶ Recent literature on transformation has helped to define types of transformation (spiritual vs secular), the speed with which transformation occurs (rapidly vs over time), and events that trigger transformation (health crisis, some form of treatment, or spontaneous).

Transformation does not have to be spiritual.⁶⁷ Levin's description of "transcendence" describes a spiritual experience of connection—white light, feelings of fullness, love, visions of animal spirits, and celestial helping spirits. This description closely parallels the experiences that 55% (N = 11) of the participants in our study described. People can make profound changes in many aspects of their lives, such as in their career, relationships, and values, as did the majority of our participants. However significant these changes are, transformation is not spiritual unless it involves, in some fashion, a change in the person's relationship to the sacred.⁶⁷

Miller and C'deBaca⁶⁵ define quantum change as a sudden, often dramatic, and enduring transformation that affects personal emotions, cognition, and behavior. The change can occur as a mystical experience or as deep insight. Looking back, the person realizes that their core beliefs, values, and behavior have changed.⁵⁹ Five of our participants reported "ah-ha" moments during sessions, but most spoke of changes and insights that occurred gradually over time throughout the treatments.

Several studies have documented how health or personal crises can stimulate spiritual transformations.^{68,69} However, a health crisis is not prerequisite to transformational change; the participants in this study had a chronic disorder whose change was precipitated by treatment. Other researchers in the field of CAM have identified similar, transformative responses to treatment.^{35-38,70,71}

Complementary and alternative medicine research on acupuncture, naturopathy, and homeopathy—whole systems healing modalities—has stimulated the development of new models to describe the healing process.^{70,72,73} Patient outcomes are multidimensional and cannot be captured with conventional health-related quality of life instruments. Thus, novel tools, which include qualitative methods, are being developed to better understand patient outcomes.^{35,72}

Until this clinical trial, evidence of the effects of shamanic healing came solely from descriptive accounts.^{16,74,75} Designing a clinical trial to study shamanic healing is a challenge because of the diversity of shamanic cultures. However, shamanism at its core, in all cultures, is a healing practice that attends first to the needs for realignment of the soul and empowers people to take part in their own healing.^{16,76-80} As CAM research expands, healing disciplines that include tending to the needs of the spirit are being evaluated; the authors suggest that shamanism warrants inclusion in the CAM whole systems research agenda.

We propose that the transformation experienced by study participants may be the mechanism by which changes in TMD pain and overall health occurred. These experiences are important outcomes of shamanic treatment that would not have been captured using standard outcome measures and speak to the value of a mixed methods approach. Generalizability of study findings may be limited, however, by the small sample size and the fact all study participants were women. Nevertheless, our data, which combine qualitative findings of transformation with quantitatively measured clinical outcomes,³⁴ is an important introduction to the systematic exploration of the effects of transformative experiences on health and clinical syndromes. Future studies would be strengthened by combining physiological and qualitative measures to assess the mechanisms by which healing takes place.

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