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## Traditional Healers and Mental Health in Nepal: A Scoping Review

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### Abstract

**Introduction:** Despite extensive ethnographic and qualitative research on traditional healers in Nepal, the role of traditional healers in relation to mental health has not been synthesized.

**Methods:** We focused on the following clinically based research question, “What are the processes by which Nepali traditional healers address mental well-being?” We adopted a scoping review methodology to maximize the available literature base and conducted a modified thematic analysis rooted in grounded theory, ethnography, and phenomenology. We searched five databases using terms related to traditional healers and mental health. We contacted key authors and reviewed references for additional literature.

**Results:** Our scoping review yielded 86 eligible studies, 65 of which relied solely on classical qualitative study designs. The reviewed literature suggests that traditional healers use a wide range of interventions that utilize magico-religious explanatory models to invoke symbolic transference,

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#### Statement of Originality

This research is original work except where due reference is made. We guarantee that we have not submitted or published our work elsewhere.

#### Conflict of Interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

manipulation of local illness narratives, roles, and relationships, cognitive restructuring, meaning-making, and catharsis.

**Discussion:** Traditional healers' perceived impact appears greatest for mild to moderate forms of psychological distress. However, the methodological and sample heterogeneity preclude uniform conclusions about traditional healing. Further research should employ methods which are both empirically sound and culturally adapted to explore the role of traditional healers in mental health.

### Keywords

religion; psychotherapy; spirituality; traditional healer; mental health

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### Introduction:

Given increasing global recognition of the relationship between traditional healers and mental illness (Incañar, et al., 2009), Nortje and colleagues (2016) generated a systematic review on the relevant quantitative data with van der Watt and colleagues (2018) following up on the remaining qualitative literature. Their review suggested that traditional healers in low-and middle-income countries were perceived to effect the most change among those who suffered from less severe mental illness, expected positive change, and believed in the inherent meaning of their treatment. Because their review demonstrated a clear diversity in traditional healers and the cultures they practiced in, they concluded future studies should focus on the cultural specificity of traditional healing practices within individual nations using detailed, contextual data to facilitate more generalizable claims (Nortje, et al., 2016; van der Watt, et al., 2018).

There is a rich body of ethnographic and qualitative literature from Nepal on traditional healers, however a cursory review may instead reveal an over-romanticized and arguably dismissive generalization of mysticism, neologisms, scientific jargon, and other paranormal, miraculous, or extraordinary claims (Krippner and Combs 2002; Castillo 2004; Sidky 2010). The potential for misunderstanding necessitates a further in-depth exploration of the total available literature, the term "traditional healers" and how traditional healers operate vis-à-vis mental health in Nepal. This is made especially true given their growing clinical significance.

Previous work has promoted traditional healers to the role of primary care providers or referral agents (Poudyal, et al., 2003, 2005). However, if medical providers delegate traditional healers to function simply as primary care providers or referral agents to other primary care providers, or even to deliver simplified manualized psychotherapies, then they lose access to the traditional healer's unique ability to treat the patient's teleological needs. Consequently, medical providers might benefit from bearing in mind Nepal's diverse, specific, and idiosyncratic cosmologies of the mind, how they shape the work of local traditional healers, and how they could potentially shape the work of local medical providers.

Recent work by Chase and colleagues (2018) took a “scoping review” approach to synthesizing 38 publications on culture and the mental health in Nepal. The purpose of a scoping review is to provide an overview of the existing evidence, regardless of quality (Arksey and O’Malley 2005; Levac, Colquhoun, and O’Brien 2010). The reviewed literature discussed how culture and indigenous knowledge, beliefs, and values shape and determine the symptom experience, expression, and help-seeking behaviors of those with mental illness. Chase and colleagues (2018) concluded by affirming the growing interest in culturally informed mental health research and encouraging its application within service design and capacity building.

Future researchers may take several approaches to this. For instance, given the traditional healer’s potential and unique capacity to engage in this healing role, medical providers could allow traditional healers to practice their own theories and interventions, without feeling the need to fulfill a medical role sub-serving biomedicine and vice versa (Ventevogel 1996). Here, future medical providers could adopt a holistic bio-psycho-social-spiritual collaborative care model in which multi-disciplinary teams would meet the explanatory needs of opposing illness causality models. Traditional healers in these teams could cover issues which have no simple pharmacological or psychopathological answer, and yet still play a role in both symptoms and solutions. This idealistic approach draws from how biomedicine and traditional healing systems can principally learn from each other and both contain elements which the other lacks. Future medical providers, researchers and public health officials in Nepal could use this approach as a road map for bringing mental health resources to the underserved in a way that is neither invasive nor imperialistic, but rather empowering on a social, individual, and even spiritual level (Craig, et al., 2010).

It is an ideal time to synthesize the relevant literature in Nepal. However, the traditional healing landscape is described through a heterogeneous and difficult to summarize literature base. To date, empiric research on the relationship between traditional healers and mental health has been quite scarce because of the unique challenges to the trial design, implementation, and evaluation of traditional healers (Nortje et al., 2016; van der Watt et al., 2018). To study a field where fidelity, adherence, and manualized care do not easily translate into ways of understanding traditional healing, many past researchers have instead turned to ethnographic, qualitative, and other social science methods with poor quality and low evidence levels per biomedical criteria, e.g., GRADE recommendations (Schünemann, et al., 2013).

Thus, to synthesize the relevant literature base in Nepal including the qualitative work which might otherwise elude systematic review, we adopt the scoping review methodology. Future researchers who wish to study traditional healers and mental health in Nepal, along with its socio-cultural diversity and complexity, should consider this scoping review in tandem with the work of Chase and colleagues (2018) who just recently reviewed culture and mental health in Nepal.

For our scoping review, we will first discuss the general scope of the included literature, introduce relevant terminology, and identify key atheoretical healer interventions before

progressing to theoretical mechanisms of healing. Then we will summarize our results within a pathways to care model.

## Methods:

### Setting and context

Nepal is a complex hotspot for cultural and biological diversity, altogether composed of 125 castes/ethnic groups and 123 languages, a fact which can be explained through Nepal's intertwined nature between the borders of the Indian subcontinent and Tibet. And according to the 2011 National Population and Housing Census, 81% of the population follows Hinduism, 9% Buddhism, 4% Islam, 3% Kirat Mundhum (indigenous ethnic religion), 1% Christianity, and 1% other or no religion ("National Population and Housing Census 2011 (National Report).") Consequently, Nepal's ethnic, cultural, linguistic, and religious heterogeneity has made it is hard to generalize all theories regarding self-hood, magico-religious thinking, and perceptions of traditional healers across the entire population (Regmi 1987).

However, accurate, reliable data on religion has historically dodged Nepal's census reports for several reasons. Strict classification systems fail to capture the syncretic nature with which mountain region Hinduism in Nepal has absorbed Buddhist tenets and vice versa. Furthermore, census enumerators have been known to incorrectly lump whole ethnicities and castes together while relying on rigid parameters to record religious preference. This has left many to claim "Hinduism" as their religion despite evidence to the contrary (Dahal 2003; Ghimire 2019).

More recently, rapid shifts in religious preference have turned measurements into a moving target. For instance, census data has seen a rising popularity in Buddhism and Kirati religions among the Magar, Tharu, Chepang, and Dalit ethnic/caste groups. In another example, Christianity has surged 225% between 1961 to 2001, especially among the Tamang and Chepang ethnic groups (Dahal 2003; Ghimire 2019).

In light of Nepal's diversity, much of the literature on traditional healers and mental well-being has focused on specific Nepali subpopulations. Consequently, we categorized findings in this review by accepted social, political, geographic divisions within Nepal. Nepal has three main types of ecosystems that inform the types of populations, livelihoods, and political contexts. The northern part of the country is the Himalaya, characterized by high-altitude regions with mostly Tibeto-Burman language speaking populations, and with a greater concentration of Buddhism. The middle region of the country is known as the Middle Hills (Parbat). This region is lower altitude hills and mountains with populations speaking Nepali and practicing Hinduism, as well as middle-hill ethnic minority groups who may practice Hinduism or Buddhism. The southern part of the country is the plains region (Tarai) characterized by high agricultural production and populations of north Indian descent typically speaking Indo-European languages related to Hindi. Here, Hinduism is the dominant religion, with small Muslim populations.

## Search Strategy

Because of the broad landscape of rich, ethnographic data regarding traditional healing in Nepal, we focused on the clinically based research question, “What are the processes by which Nepali traditional healers address mental well-being?” Thus, our review, while open to Nepal’s cultural heterogeneity, does not seek to summarize every related aspect of it. Neither does it summarize each and every traditional healer intervention outside of those papers which match our research question.

We used the Preferred Reporting Items for Systematic Review and Meta-analysis Extension for Scoping Reviews (PRISMA-ScR) (Figure 1; Appendix A) (Tricco, et al., 2018). We additionally registered our scoping review through the Open Science Framework (OSF) ([osf.io/4ahuw](https://osf.io/4ahuw)).

We utilized broad search strategies to capture relevant idiomatic and ethnographic language that might escape a typical systematic review taxonomy. For example, we searched for “mental health” using informal language based on “mental well-being.” We searched databases from Anthrosource, PsycINFO, Web of Science, Scopus, and Pubmed. The full search strings used varied based on each database (Appendix B). We contacted key authors and reviewed references of included articles and publications from their work for additional literature.

## Screening and Eligibility Criteria

The authors screened the initial search results using pre-defined inclusion/exclusion criteria in two phases: 1) title/abstract review and 2) full-text review (Table 1). To avoid prior loose, unsystematic definitions, we used the same “traditional healer” definition as established by Nortje and colleagues (2016): “healers who explicitly appeal to spiritual, magical or religious explanations for disease and distress.”

## Data Extraction and Synthesis

We conducted our analyses according to guidelines for a modified thematic analysis rooted in grounded theory, ethnography and phenomenology (Braun and Clarke 2006; Taylor and Bogdan 1998). This approach relied on identifying and describing explanatory patterns within texts and allowed for a more flexible account of the qualitative, heterogeneous body of literature.

Two of us (TVP and BNK) completed two passes of the literature to establish the final codes, themes, and organizational frameworks. Our first reading of the literature identified initial codes. We adjusted these codes through constant comparison across literature. To enhance trustworthiness of the qualitative analysis, we engaged in active discourse with respect to coding, organization of coding categories, and identification of emerging themes. We discussed the data and provided critical feedback on their interpretations. This provided a theoretical sounding board which allowed us to reflect on and then explore alternative interpretations before making changes.

By the end of our first pass, the codebook reached data saturation, i.e. no new themes emerged. We agreed upon the final codebook by reading the coded data and checking the codes for consistency (Appendix C).

## Results:

Altogether, our scoping review yielded 86 publications, including 65 qualitative studies, two quantitative studies, eight literature reviews, five perspective or opinion pieces, and six mixed methods studies (Table 2). Many were limited in scope; did not use regimented study designs, validated scales, or ratings for outcome assessments; relied primarily on ethnographic data without any biomedically defined framework; used terminology with ambiguous definitions inconsistent with the broader literature and health policies.

The reviewed literature spanned across most major regions of Nepal including the Kathmandu Valley (n=15), Western Himalaya (n=5), Central Himalaya (n=18), Eastern Himalaya (16), Western Middle Hills (n=6), Central Middle Hills (n=4), Eastern Middle Hills (n=4), Western Tarai (n=4), Central Tarai (n=8), Eastern Tarai (n=1) as well as England (n=3), Hong Kong (n=1), and India (n=3). Five works sampled from multiple regions. The reviewed literature also covered a broad range of ethnicities and castes including the lower castes (n=6), higher castes (n=10), Newar (n=7), middle hills ethnic groups (n=26), Tarai indigenous groups (n=4), Kirati (n=12), Chantel (n=1), Sherpa (n=8), Bhutanese (n=3), Tibetan (n=1), and Sikh (n=1). 10 works represented multiple ethnicities or castes.

Despite such cultural heterogeneity in terms and constructs, much of mental health research and practice has described Nepal's fluid areas of self and life using a framework by Author and Harper (2008). In this framework, they conceived of the Nepali self in terms of the *man* (heart-mind), *dimaag* (brain-mind), *iu/saarir* (physical body), *saato/atma* (spirit/soul), *ijjat* (social status/honor), and *samaaj* (social world). Nepali phenomenological concepts of the self, such as the *man* (heart-mind) notably bypass local notions of stigma classically associated with mental illness (Author and Harper 2008). The distinction between *man* and *dimaag* (brain-mind) is especially important given that issues and solutions related to the *man* offer a satisfying explanation for sickness and misfortune whereas *dimaag* issues and solutions face the same stigma as mental illness (Author and Harper, 2008). This nuanced stigma has presented tremendous barriers for healthcare delivery, and traditional healing is built upon this cultural psychology (ethnopsychology).

Overall, the literature reported on a wide variety of traditional healers in Nepal while simultaneously revealing that Nepali had no agreed upon general term for "traditional healer." The majority of the reviewed literature used local terms (emic) when referring to distinct ethnic and cultural types of traditional healers. These included but were not limited to *dhami* (mediums or villagers like any other who indirectly heal through divine possession states; conventionally used in Western Nepal), *jhankri* (non-mediums who directly heal through their own powers with or without divine possession states; conventionally used in Eastern Nepal) (Hitchcock 1976), *dhami-jhankri* (an unconventional though common amalgam of *dhami* and *jhankri*), *lama* (a Buddhist term for monk ritual practitioner which also refers to an informal traditional healer), *mata* (female healer, often referred to a woman

who had become possessed by a spirit that in turn gave her healing powers), *ban jhankri* (jungle healer), *gyotishi* (astrologers who can heal patients), *mopa* (diviners), *ngags pa* (tantric priests), *baul* (mystic minstrels) (Hyam 2019), *amchi* (Tibetan doctors) (Craig, et al., 2010), *bijuwa* (Rai traditional healer) (Hyam 2019), *bombo* (Tamang or Yolmo healer), *lambu* (Tamang healer) (Höfer 1997), *phombo* (Jirel traditional healer) (Sidky 2000), *pande* (Chepang healer) (Riboli 2012), *puimbo* (Sunuwar healer), *ngiarni* (Sunuwar healer) (Fournier 1976), *poju* (Gurung healer), *hlewri* (Gurung healer) (Messerschmidt 1976), *gurau* (Tharu traditional healer) (Shrestha 1980), and *yeba* (Limbu traditional healer) (S. Jones 1976). Others referred to less conventional healers such as a *punjari* (priests who specialize in puja rituals either at home or the temple, typically Hindu) (Hitchcock and Jones 1976; Sidky 2008). Curiously, *jajmani* (similar to *pujari*, however *jajmani* were villagers like any other who happened to be performing in-home rituals including but not limited to puja) did not appear in the included literature.

Certain healer types, such as *ayurvedic* healers, *bhaidya* (healers in the *ayurveda* tradition, who typically prepared herbal medications), naturopathic healers (also similar to *ayurvedic* healers, but with an emphasis on vitalism), lhapa / lhamo (oracles), and *aaya* (ritual specialists who are often concerned with forms of mental distress and misfortune, as well as with other issues) also did not appear in the included literature. Although patients likely present to these healer types for ailments reminiscent of Western psychopathology, our review of the available literature base did not reveal explicit documentation of a ritualistic interaction with a psychological outcome in keeping with our inclusion/exclusion criteria.

The included literature used non local (etic) terms such as “traditional healer,” though less commonly than their emic counterparts. Other etic terms included “faith healer,” “traditional faith healer,” “traditional medical practitioner,” “shaman,” and “medium.” The broad etic language had at times proven confusing as, for example, faith healers could also distinguish themselves from traditional healers through their emphasis on prayer or other faith-based practices.

In spite of the aforementioned clear boundaries across individual healer types and for the purposes of narrative simplicity within the broader context of patient-healer interventions, we will refer to all traditional healer types, whether faith healers, shamans, *dhami-jhankri*, etc., as “traditional healers” unless contextually necessary. We also refer to all those receiving the traditional healer’s intervention as “patients” whether they be clients, villagers, community members, etc. while recognizing the biomedical connotations inherent within this term.

## Diagnosis

Our review revealed many kinds of traditional healer diagnostic approaches often in the setting of but not specifically for mental health complaints. Diagnostic approaches included pulse checks, social interpretation, and magico-religious divination, recitals, and offerings. Interestingly, many traditional healers used techniques interchangeably, and patients demonstrated little interest in the traditional healer’s actual diagnosis (Skultans 1988). Some diagnostic approaches blurred the line between diagnosis and treatment, as was the case with



more elaborate performances and the involvement of social support (Maskarinec 1995; Sidky 2010; Sagant 1976; Brenman, et al., 2014; Skultans 1988).

Traditional healers could divine the cause of illness by taking the patient's pulse, although with a less consistent approach when compared to the biomedical model (van Leeuwen 2008). If no pulse was in the right wrist, then no major deities could be said to be the cause. If there was no pulse in the left wrist, then an evil spirit or witch was thought to be at work. If there was a pulse on both wrists, then the cause was deemed natural (Maskarinec, 1995; Soubrouillard, 1995).

Traditional healers could diagnose between magico-religious and physical causes of illness using specific acts of divination. One common technique was known as *jokana*, of which there were several similar varieties. During the process of *jokana* the traditional healer would take a few pieces of rice from a small pile on a plate, name a general magico-religious category of illness, and then determine the stated category's presence based on the pattern of rice as the traditional healer separated them. In theory, the traditional healer would perform this lengthy process each time. In reality, the traditional healer shortcutted this time consuming process and performed what the traditional healer found intuitively true (Reinhard 1976).

Traditional healers could diagnose through elaborate performances. During these performances, traditional healers could offer animals, food, or other items to the gods or ancestors to receive an answer about the patient's illness (Sagant 1976; Brenman, et al., 2014). Other times, traditional healers could perform recitals adopted from traditional healer texts and/or other technical maps with fixed cosmologies about Nepali selfhood and culture (Soubrouillard 1995). For example, traditional healers could recite historical tales about local spirits before exhorting them to leave the afflicted humans alone and to return to the wilderness where they belonged. While these narrative recitals aimed to identify a singular spirit, sometimes singling out just one was not possible, and in these cases, the traditional healer would have to appease each offending spirit (Maskarinec 1995; Sidky 2008).

Some urban traditional healers involved the patient's friends and family for diagnostic interpretation. As a result, those involved made the diagnostic and curative events clearer through personal elaboration of the traditional healer's original findings (Maskarinec 1995; Skultans 1988). In rural settings, where close ones can form a constant backdrop to the patient's life, no particular emphasis was placed on outsider attendance.

## Treatment

Our review revealed a wide range of traditional healer treatment styles including traditional healer and/or patient altered states of consciousness, spoken rituals, and non-spoken rituals. Some treatments overlapped with diagnostic approaches. While traditional healers applied their treatments broadly across different disease states, many specifically reserved altered states of consciousness and non-spoken rituals specifically for considerable mental distress (Hitchcock and Jones 1976; Regmi 1987; Skultans 1988; Desjarlais 1992; Soubrouillard 1995; Hardman 1996; Peters 2007; Subba 2007; Sidky 2010)



Relevant to the traditional healer's ability to treat mental distress, traditional healers have been the center of debate with regards to their own possible psychopathology (Paul 1976). Traditional healers generally would undergo an initiation process during which they therapeutically transformed from possible psychosis to a more organized and integrated social identity. Afterwards, they would willfully enter in and out of controlled altered states of consciousness, sometimes referred to as an ecstatic state, distinguish between ordinary and non-ordinary realities, and deliberately engage in meaningful conversation about the cosmology of society (Sidky 2008).

For patients, each individual would first deeply concentrate through drugs, sweat lodges, vision quests, breathing exercises, percussion instruments, or complex meditation and imagery exercises. Ego boundaries would then dissolve leading to the psychological and sometimes terrifying annihilation of the self. Eventually the patient would develop a collaborative relationship between their revealed unconscious and conscious selves (van Leeuwen 2008; Peters 2004).

Traditional healers, both well- or ill-intentioned, delivered *mantra* (spoken prayer, hymns, or chanting) or *tantra* (bodies of text or schools of thought or sometimes a meaningless term spoken with *mantra*) to either heal clients or harm others (Soubrouillard 1995). For example, *mantra* and *tantra* could raise the *saya* (soul) in people whose *saya* has fallen, correct the ancestor-person relationship, treat ambiguous and confusing physical and psychosocial distress, or help a family overcome grief over a child's unexpected death (Hardman 2004; Subba 2007). However, *mantra* and *tantra* faced certain limitations. For example, while traditional healers insisted that they could control all major spirits using *mantra* and *tantra*, they could not control spirits that caused madness (Sidky 2008).

Traditional healers could use materials and visualizations that accompanied their *mantra* to guide and organize the body. For instance, the traditional healer could bring up a *mantra* and illustration specifically to tackle madness or to do away with minor malevolent spirits caused by their close physical proximity. Other techniques included offering patients protective amulets to reduce the fear surrounding illness (van Leeuwen 2008), performing *phukne* (blowing an evil spirit away), playing the *dhangro* (drum), and adorning and/or employing traditional items such as a *rudraksha mala* (garland), *ghanti bhayako mala* (other type of garland), *dumsi kanda* (a special cap with a porcupine quill), and *mayurko pwankh* (peacock feather) (Jimba, et al., 2005).

Traditional healers could perform elaborate sacrificial ceremonies in the name of a greater cosmological force to not only diagnose but to treat illness. Traditional healers, during multiple accounts, helped patients to overcome suffering, enhance cultural human-animal relationships, prevent the occurrence of future traumatic events, treat feelings of a sinful past life, disharmony, or *bhootvidya* (psychiatric conditions caused by gods, goddesses, demons, witches, and astrology), and feel assured of their child's safe return to or welcome from the Maoist Insurgency, a civil war which raged from 1996 to 2006 through the countryside with death sentences, murders, purges, abductions, and other war crimes against humanity (R. L. Jones 1976; Fournier 1976; Sidky, et al., 2000; Peters 2007; Gewali 2008; Lohani 2010; Author 2014)

Traditional healers and patients considered beatings particularly effective against illnesses of unknown etiology given the presumption that such ailments and their associated beatings both affected the whole individual (Winkler 1976; Gewali 2008). Discouragingly, violence, high drama, and a focus on the visceral reactions of bulging eyes, popping veins, and emesis at times resulted in considerable bodily harm. Some *dhami-jhankri* went as far as threatening, suffocating (e.g. with water), beating, or applying a red-hot iron to patients (Jimba, et al., 2005; van Leeuwen 2008; Alter 2014). Worse still, healer rituals, while viewed as a culturally appropriate form of divine justice among humans, could instead reinforce oppressive power structures and human injustices against disenfranchised populations such as women rather than alleviating distress or innovating social order (Lecomte-Tilouine 2009b).

### Theoretical Mechanisms of Healing

Our review revealed several theoretical mechanisms which sought to explain why patients perceive positive benefit from traditional healers. We categorized these mechanisms as traditional healing through crafting a symbolic spiritual narrative, providing personal comfort, mobilizing social support, inducing an altered state of consciousness, or facilitating spontaneous recovery.

The traditional healer in essence embraces the human need to connect with a symbolic life and spiritual explanation for misfortune. The traditional healer crafts the symbolic life within a culturally relevant narrative for the self and names and makes known visible unknown agents of affliction. In contrast to conventional psychotherapy, the traditional healer alters and manipulates the patient's innately-lived human experience, subjective socio-cultural environment, and perceptual logic using myths and magico-religious symbols. Compared to biomedical explanatory paradigms, whose causal hypotheses can prove considerably abstract and counter-intuitive, the metaphors from traditional healers, long since embedded within Nepal's cultural and socio-political psyche, are more popular, acceptable, and culturally logical. This allows for a form of therapy which is less explicit, more comprehensible, and emotionally palatable (Soubrouillard 1995; Craig, et al., 2010; Alter 2014).

Traditional healers can even vary the prominence and dramatic effect of their spiritual metaphors through the degree to which they act out magico-religious strength. For instance, traditional healers can perform visceral rituals while paying tedious attention to their procedure and craftsmanship of ritual and alter paraphernalia (Nicoletti 2006). By demonstrating their healing powers through psychodrama, traditional healers separate themselves from priests, who focus on the life cycle, planting, harvesting, and temple worship, and doctors, who practice professionalism (S. K. Jones 1976).

Once the traditional healer activates locally relevant magico-religious symbols, they then remedy the mind by phenomenologically reorienting a patient's experiential reality to permit the free expression of mental illness without the reductionist vocabulary constraints of western psychiatry (Alter 2014; Brenman, et al., 2014). This phenomenological reorientation, sometimes dubbed as the heart-mind solution, can occur in the following sequence: 1) illness narrative 2) physiological experience, and then 3) communication

(Author and Harper 2008). Here, the patient will present to traditional healers not for mental health treatment but for issues with ghosts, spirits, gods, or witches, after which the traditional healer, as both a spiritual and community leader, establishes a consensus to hand responsibility of sickness and misfortune to higher magico-religious beings (van Leeuwen 2008).

Whether granting good luck or facilitating the free expression of anger, traditional healers can craft rationalizations for patients when they are confounded by issues related to illness, identity and actions, the seemingly impossible, Nepal's storm afflicted, harsh environment, and so forth (Hitchcock and Jones 1976; Messerschmidt 1976; Reinhard 1976; Regmi 1987; Skultans 1988; Desjarlais 1992; Maskarinec 1995; Subba 2007; Author and Harper 2008; van Leeuwen 2008). For mundane quarrels between individuals or groups, traditional healers can attempt to depersonalize the conflict and impersonally blame it on spirits as much as possible (Michl 1976). In another example, the patient may suffer from a seemingly unremitting illness. For their family, traditional healers can make an offering to the gods in order to help them feel some psychological benefit from knowing they have done everything they can. Among the worst scenarios, traditional healers can help the family cope with an unnatural death (Hitchcock and Jones 1976).

Regardless of the exact ritual, the traditional healer reenacts a broader cosmology so that the patient interfaces with a spiritual and aesthetic creation of the self to create, sustain, and transmit a system of meanings for inexplicable physical, mental, and social suffering. This interface within a separate metaphorical reality is more locally understood, intimate, malleable, and psychologically penetrating than what conventional spoken word or illness narratives have to offer (Peters 2007; Craig 2010; Sidky 2010). It permits the individual to admit powerlessness to an external locus of control, remove agency from the self, engage in intersubjective dynamics (Desjarlais 1992, bypass local notions of stigma (Messerschmidt 1976; Author and Harper 2008), and perhaps even activate fundamental brain (neurognostic) structures responsible for therapeutic behavioral and cognitive healing (Sidky 2008). Through symbolic narration, the individual eventually depersonalizes, defuses, reinterprets, and unburdens unfortunate, baffling, and frightening events while reintegrating their mental distress within a particularization of a more meaningful mythic world (Desjarlais 1992; Sidky 2010). This creates a satisfying explanation that is internally consistent with traditional Nepali beliefs and meets the underlying security and existential needs within the patient, curer, and community (Hitchcock and Jones 1976; Reinhard 1976); Craig 2010;.

On a simpler level, the traditional healer can act as a therapeutic ally when providing personal support, empathy, and higher expectations of treatment (Hitchcock and Jones 1976). This invokes a placebo-like response that can aid depression, anxiety, insomnia, and sometimes even schizophrenia (Nicoletti 2006; Sidky 2010). Traditional healers are particularly adept at eliciting empathy because often they are community neighbors who can naturally establish personal relationships and familiarize themselves with longstanding family history (Sidky 2008). The traditional healer's familiar role in Nepali society allows them to embody psychological attributes, expand their capacity for empathy, and express more sensitivity to their patient's needs (Hitchcock and Jones 1976). When compared to

medical providers, traditional healers appear more familiar, less frightening, and less intrusive (Maskarinec 1995).

The traditional healer's familiarity is further fueled by their historical role as doctor or priest in remote Nepali communities during which medical and religious specialties were not differentiated (S. K. Jones 1976). However, unlike conventional priests or doctors who acquire roles through social inheritance, succession, or biomedical training, traditional healers acquire supernatural strength through spiritual inheritance, possession, divine intervention, and magician-religious training whether alone or under a guru. For instance, *jhankri* (traditional healers from Eastern Nepal) carry a certain power and status regardless of their being possessed by a divine entities. *Dhami* (western traditional healers) are primarily mediums who have no power in themselves, making *dhami* simple people like any other. To heal, a deity possesses and performs the act through the *dhami* (Hitchcock 1976). With this perceived power, traditional healers, whether *dhami*, *jhankri*, or otherwise, possess the capacity to insert their treatments into the patient's private and public selves because they too had to undergo a public and private initiatory transformation (Hitchcock 1976; Maskarinec 1995).

The traditional healer's ability to raise expectations stems from how they are viewed by Nepali society. When strictly viewed within the scientific plane, researchers may overlook the traditional healer's culturally perceived role as the guardian of an individual's psychic equilibrium and the active mediator between the human and spiritual realms (Nicoletti 2006; Sidky 2008). In fact, the traditional healer, through their spiritual role, can create religious explanatory frameworks to treat an individual's psychological and sociological existential crises (Macdonald 1976; Craig 2010), and it is within this psychosociological foundation that the traditional healer manipulates unconscious symbols of the body and self as a kind of culturally relevant psychotherapy.

In tandem with the traditional healer's spiritual and psychological benefit, the traditional healer may mobilize social support directly or indirectly. For instance, with the reintegration of child soldiers from the Maoist insurgency certain traditional healer rituals directly facilitate a patient's restoration back to an original role or transformation to a new one during a liminal state, or a state between two social roles. Unfortunately, these social rituals may also lead to the loss of opportunities during the possible transition to a more submissive role, for instance when girl soldiers must return to a patriarchal society (Author 2014).

The traditional healer can indirectly mobilize social support as the family rallies together behind a patient whose magico-religious explanation for illness exonerates them from more stigmatizing mental illness. Social support and magico-religious involvement may even allow for material rewards, relief from unpleasant work responsibilities, reduced conflict from the authority over them, and upward mobility in status (S. K. Jones 1976; Skultans 1988). Social support helps to bind the patient and their family more closely together and provide attention, a sense of inclusion, and a feeling of comfort. Magico-religious illness states and traditional healer rituals can also offer a safe space in which the patient can express their pain, personal and social conflict, distress, anger, social problems, and sometimes actual mental illness without directly attacking their oppressors. In this way,

traditional healers help patients grasp a profoundly complex life situation by expressing aspects of themselves previously unexpressed (Peters 2004; van Leeuwen 2008; Sapkota, et al., 2014). Hence, traditional healers are thought to be particularly effective for psychosomatic illnesses and disenfranchised populations such as marginalized or unmarried women with a lower position in society and very little chance of advancing their status (Peters 2007; Sidky 2008; Hyam 2019).

Because the patient may perceive physical relief during the process of the traditional healer's treatment, they may in turn develop more capacity to tackle other underlying sociological issues. This explanation flows with the Nepali belief that mental distress is an everyday occurrence which must be dealt with individually (Chase and Sapkota 2017) and may explain why patients tend to attribute mental relief following a traditional healer's intervention to an incidental benefit following physical relief (Alter 2014).

The traditional healer may also induce a patient altered state of consciousness through the healer's own learned dissociative experiences. Recent interpretation has viewed altered states of consciousness less as abnormal but more as an alteration of normal human consciousness through special psychophysiological states (Sidky 2008). Other interpretations view altered states of consciousness as a Jungian transcendent function in which mystical experiences turn existential crisis into a transformational growth experience. In this shared state, the traditional healer can provide a sense of understanding as well as an institutionalized framework for proper expression of patient mental processes which have been compartmentalized and integrated into phenomena such as spirit possession (Sidky 2008).

However, critics have expressed skepticism about the degree to which the traditional healer's intervention registers on a conscious level. Any speech during performances tends to be beyond the literal comprehension of both the traditional healer and patient (Maskarinec 1995). Many patients or traditional healers are unable to decipher the traditional healer's rhetoric which often is in a specialized and ambiguous vocabulary that is too idiosyncratic, non-indigenous, and specialized, or archaic. Furthermore, patients can face difficulty when parsing the traditional healer's rhetoric given the acoustics and noise levels of the room (Winkler 1976; Brown 1988). The traditional healer's performance may also be of questionable psychotherapeutic benefit in the setting of infants, the demented, the very sick, and animals (e.g. cows or yaks) (Paul 1976).

On the whole, much of the reviewed literature primarily suggested that traditional healers most effectively treat mental well-being in the case of less severe pathology. In this light, others have theorized that patients perceive positive benefit from their treatment because of the patient's underlying cyclically resolving disease state. Conversely, severe, intractable, and less cyclical illnesses such as schizophrenia and obsessive-compulsive disorder have a harder time being treated through expectation, belief, and meaning-making. In other words, it would be expected for there to be gradual improvement regardless of the diagnosis or treatment (Sidky 2008). Put together, given the subjective nature of symptom resolution, outcomes should be open to interpretation (Author and Schreiber 1999).

## Discussion:

Our scoping review yielded 86 studies on the relationship between the interventions of Nepali traditional healers and mental well-being, 65 of which were qualitative in study design. The reviewed literature covered a wide range of diagnostic and treatment strategies including divination, pulse checks, recitals, offerings, spoken and non-spoken rituals, and altered states of consciousness. The traditional healer's interventional approach may not deeply depend on the exact technique. Rather, patients focus on whether the outcome relates to magico-religious and locally relevant symbols such as spirits, gods, spells, astrology, and karma. Traditional healers can craft these magico-religious constructs into digestible illness narratives, offer empathy, raise expectations, and mobilize the patient's family and community to provide personal and social support, induce altered states of consciousness to facilitate catharsis, and/or shepherd the patient through an unpleasant time until spontaneous recovery from cyclical disease processes.

While the literature suggests that Nepali traditional healers share elements with Western psychotherapy, that is not to say that they are psychotherapists. In addition to or in place of conventional psychotherapy, traditional healers act like flexible social actors and leaders who transform into magico-religious leaders that narrate and act out meaningful, affective, and therapeutic mythological stories within the context of local cosmological beliefs. The traditional healer as social actor and leader can even involve the patient's family and community to collaborate with the patient, elaborate upon the traditional healer's diagnosis, and restore family structure, community identity, and social cohesion.

The traditional healer fuels the patient's superstition about why things happen or didn't happen through an intuitive misunderstanding of cause-and-effect relationships. The treatment process relates back to the patient's issues and ailments and gives the impression that traditional healers can influence otherwise unpredictable and significant events without relying on the seemingly unnatural constructs of psychological insight and standard psychotherapeutic verbalization (Singh 2018). In the face of misfortune and confusion, patients generate meaning, restructure their cognition, and freely express themselves.

Overall, the traditional healer's unconventional approach to healing the mind, body, and spirit raises the question of whether biomedicine will ever fully unravel the mechanisms of traditional healing. Nonetheless, the contrasting nature between traditional healers and conventional psychotherapy, specifically the spiritual dimension in which the former operates but the latter does not, can at least partially explain why remote patients prefer traditional healers over medical providers, even when doing so paradoxically can come at a greater financial cost (Regmi 1987).

Thus far, the Nepali-based discussion on non-spoken rituals, altered states of consciousness, and several mechanistic theories of traditional healing bears striking resemblance to the broader cross-cultural work from which we based our scoping review (Winkelman 2004, 2010; Nortje, et al., 2016; van der Watt, et al., 2018). Namely, Nepali traditional healers share with non-Nepali traditional healers the general techniques of hypnotic drumming, dissociative states, and physical exertion in the setting of, but not expressly for, mental



distress. Furthermore, scholars have theorized mechanisms of healing within Nepal also described in other traditional healing cultures. These include meaning-making, enhanced community cohesion, and spontaneous recovery because of the natural course of chronic remitting illnesses like bipolar disorder or pain.

### Current Findings and Potential Gaps in Knowledge

We devised an overall pathways to care model to better visualize the connections among our synthesized findings and to highlight themes about the relationship between traditional healers and mental well-being that may be present but are scarcely covered by the current literature (Figure 2). Our model is adapted from prior work by Author and colleagues (2020) who themselves adopted a mechanisms of action approach to breaking down a specific psychosocial intervention into its specific and non-specific ingredients/processes (Alavi and Sanderson 2015).

For our model, we fit our results within the broader cultural literature on culture and mental well-being in Nepal and highlighted relative gaps in knowledge (Chase, et al., 2017; Nortje, et al., 2016; van der Watt, et al. 2018). We also offer a written description of our model below. However, we must again emphasize the overall heterogeneity within Nepal's cultural makeup. Therefore, while our pathways to care model captures a broad snapshot of the academic community's current knowledge state, it does so by sacrificing the nuanced values inherent within each of Nepal's cultural systems.

**I. Access to Care:** The origins of Nepali mental distress may fall under biological, psychological, sociological, and/or spiritual categories. Given the cultural dimensions of mental health stigma, medical illiteracy, and sociological oppression, patients may self-interpret their underlying psychological and sociological distress into a culturally appropriate care seeking behavior. For instance, patients may interpret their mental distress as a less stigmatized biological or magico-religious complaint. Patients will then present either to the biomedical treatment realm (e.g. doctors), the magico-religious treatment realm (e.g. traditional healers), or both depending on the context of their environment and illness. *Few studies have investigated the specific social and economic barriers which influence the self-interpretation from a primary psychological or social issue to a medical or spiritual one. Of interest may be the precise process of self-interpretation from stigmatized to less stigmatized complaints and other magico-religious complaints not yet biomedically studied.*

**II. Interventions:** Magico-religious diagnostic techniques include divination, pulse checks, recitals, offerings, and social interpretation. Common treatments include non-spoken rituals, spoken rituals, and altered states of consciousness. *Relationships may exist between a patient's specific care seeking behavior and the traditional healer's chosen intervention. Furthermore, relative to Nepal's deep cultural diversity, the scarce available research hints at other diagnostic techniques and treatments not yet biomedically studied.*

**III. Theoretical Mechanisms of Healing:** Traditional healers elicit subjective improvement spiritually through symbolic narration, psychologically through personal support, and socially through mobilizing family and community. They can also induce an



altered state of consciousness or more simply facilitate spontaneous recovery. *Relationships may exist between a traditional healer's specific intervention and the patient's mechanism of healing. Insufficient research has formally investigated the mechanisms of magico-religious healing, especially with the help of locally validated interview structures, objective rating scales, neuroimaging approaches, and/or other psychophysiological measurements of bodily states, thus hinting at other phenomenological processes not yet biomedically studied.*

**IV. Resolution of suffering:** A patient may perceive a satisfactory resolution of suffering after their first visit to either the medical provider or the traditional healer. On the other hand, a patient may perceive an unsatisfactory resolution if they receive an intervention that lacks the biomedical or magico-religious background which they inherently desire. *Scarce research has investigated the outcomes of magico-religious healing, thus hinting at relationships between a patient's specific mechanism of healing and their satisfaction level.*

Given the number of exceptions which exist for a culturally diverse country such as Nepal, researchers should avoid making pan generalizations about cultural tenets and by extension magico-religious ideologies from our paper (Tol, et al., 2005; Cassaniti and Luhrmann 2014). Such over simplifications may inadvertently exotify folk theories of illness from the possible underlying psychological and physical processes. Furthermore, personal testimonials regarding traditional healers and mental health cannot be taken literally, and many published anthropologists have viewed their own findings with some level of skepticism (Author and Schreiber 1999; Krippner and Combs 2002; Castillo 2004; Sidky 2010).

### Limitations

Given the diverse Nepali population, the available literature did not cover every region nor every culture, particularly those less accessible to prior researchers. For instance, healers from the northern mountainous margins of Nepa went underrepresented likely because of our search strategy and/or inclusion/exclusion criteria. The unequal geographic distribution of our included studies may also reflect how the late 1990s to early 2000s Maoist Insurgency limited where researchers could safely travel, especially in certain rural areas. By focusing on the therapeutic aspects of patient-healer interactions and their associated psychological outcomes, we also neglected more formalized practitioners whose work may confer ritualistic healing on a more subtle level. The reviewed literature relied heavily on western diagnostics which poorly distinguish subtly dissimilar states such as dissociative trance and primary thought disorders. The reviewed literature also infrequently focused on the negative aspects of spiritual healing, possibly due to publication bias, retrospective bias, participant bias to please the researchers, or observer bias - all biases inherent from a predominantly ethnographic research base.

The available literature used inconsistent terminology, especially in regards to traditional healers and mental health, most likely to avoid relying on psychiatric terminology which would have missed out on nuanced Nepali phenomenological states. As a result, our systematic search had limited utility even when broadened to a scoping review, and we

undoubtedly did not exhaust the full scope of the relevant literature. Furthermore, we relied on papers written primarily by Western authors making the scoping review itself susceptible to western bias. This is made additionally problematic in light of the Nepali preference to report physical complaints over mental which consequently blurs the line among physical illness, somatic complaints, and “true” psychiatric disease.

### Future Research Recommendations

Further literature review could expand this scoping review and that of Chase and colleague’s (2018) into the realm of more formalized traditional practitioners such as Ayurvedic, Tibetan, and/or Chinese medicine practitioners whose alternative techniques and interactions may confer psychological benefit with or without the ritualistic interactions emphasized in this review. As this scoping review focused on diagnostic approaches, treatments, and theoretical mechanisms of healing, and Chase and colleagues (2018) on culture, other reviews could focus on different aspects of patient-healer pathways to care including epidemiological and economic patient-healer data, traditional healer demographics, perceptions of traditional healers, barriers to care, chief complaints, “idioms of distress,” duration and frequency of traditional healer encounters, etc. Additional review of the Nepali written literature would reveal insights previously hidden from English-locked reviews such as ours.

Research teams who work across the boundaries of culture, medicine, and psychiatry should, as Höfer (1992) once suggested, frame the broader therapeutic strategies of ritual and its continued gaps in knowledge through systematic, empirically sound, though still culturally adapted, methods including locally-validated psychological tests, medical examinations and the like (Höfer 1992). To date, there are few studies which have taken a systematic, objective approach to examining the relationship between traditional healers and mental health in Nepal, e.g. interventional clinical studies, double blinding of traditional and biomedical treatment, control arms to adjust for confounding factors.

Consider the traditional healers from Kalabo, Zambia who have suggested additional utility from traditional healer services in hospital settings, an option not unlike the priest-physician relationship within US hospitals (Stekelenburg, et al., 2005). If future research reveals similar desires among Nepali healer-goers then one research design could evaluate the efficacy of in-hospital traditional healer consultations. Alternatively, one could apply this approach within the outpatient setting with medical providers instead permitting or not permitting the patient to enlist outside, parallel traditional healer treatment. Established researchers could utilize implementation science research methods, e.g., the Consolidated Framework for Implementation Research, to study how collaboration succeeds or fails based on programmatic, contextual, provider, and client-level factors.

For epidemiological and economic data surrounding traditional healer utilization, the research team could draft, pilot, and deliver a structured survey instrument based upon prior studies. Because traditional healers may treat mental distress secondary to patient reported physical or supernatural injury, researchers ought to caution themselves against surveys which exclusively measure mental illness using conventional psychological terminology.

One area of interest has been the objective measurement of symptom resolution through neuroimaging and other psychophysiological measurements of bodily states (Seligman 2018). Prior cross-cultural work by Winkelman (2004, 2010) proposed a neurotheological explanation in which healer induced feelings of self-confidence, authority, belief and expectation intensify connections between the limbic system and lower brain structures. Here, increased activation discharges synchronous slow (theta) waves into the frontal brain supposedly creating an integrative mode of consciousness. His theories elegantly connect the general human psychophysiological tendency to the emotional, cognitive, and psychoneuroimmunological responses (Winkelman 2004, 2010). However, recent neuroimaging, brain biology, and chemistry studies have criticized his theories for lacking empirical justification and compatibility with modern findings (Sidky 2008).

Other innovative and scientifically sound neuroimaging studies on consciousness, while faintly related to traditional healer and patient altered states of consciousness, may also inform future neurobiological work on healers and mental-well-being in Nepal (Lutz, et al., 2007, 2008; Marcia 2003; Perlman, et al., 2010; Acunzo, et al., 2013; Seppälä, et al., 2014; Dahl, et al., 2015). Richard Davidson has arguably pioneered this field by applying functional magnetic resonance imaging to extensively study the mechanisms of brain function and new therapeutic approaches for psychology. For instance, his findings have demonstrated how mental training and meditation can increase the strength of activation in the left prefrontal cortex, which houses positive emotions, while dampening the right prefrontal cortex, which houses negative emotions. His other studies have found similar neurocorrelates between mental training and meditation and the insula, amygdala, right temporo-parietal junction, right posterior superior temporal sulcus, limbic circuitry, and immune system (Davidson and Goleman 1977; Davidson, et al., 2003; Davidson and Lutz 2008).

However, such “gold standard” measures, though critical in their own right, may, alone, fail to enlist participants who live far away from clinical settings or worse, test the ethnical limits of consent and blinded treatment among vulnerable patient populations. Furthermore, though traditional healers are finding themselves interacting more and more with biomedical professionals, research data from idealistic, controlled clinical settings provide limited utility for the rural and migratory residents who traditional healers primarily tend to. Instead, the Community-Based Participatory Research model would better capture the rural pathways to care which extend across formal and informal health system actors (Wilson, et al., 2018).

As an example, researchers could explore the intertwined lives of traditional healers and medical providers as they treat shared patients in search of a holistic sense of relief. As the patient traverses their personalized care network, researchers could cross-culturally compare seemingly disparate explanatory models, diagnoses, and treatments. And rather than focusing entirely on biomedical definitions of symptoms, interventions, and outcomes, researchers could follow local conceptions of self, e.g. *man* (heart-mind), *dimaag* (brain), distress, e.g. fallen *saya* (soul), and traditional healers, e.g. *amchi*, as defined and volunteered by the patients, traditional healers, and perhaps even medical providers themselves. Local traditional healers might even assist the research team with negotiating and translating local disease causality models, notions of truth, relevant scientific concepts,

and research priorities not shared across all cultures (Adams, et al., 2005; Adams, et al., 2008; Shrestha and Lediard 1980). Research teams could take a conventional field-based approach or even explore new technological avenues for communication, documentation, and analysis of complex, parallel study groups (Bhatta, et al., 2015; Chib, et al., 2015; Style, et al., 2017; Ni, et al., 2020).

However, researchers should balance the naturalistic approach of Community-Based Research Participation with one or several structured and locally-validated instruments. For instance, Craig and colleagues (2010) applied an adaptation of the McGill Illness Narrative Interview (MINI) to systematically study illness narratives and explanatory frameworks among patients in Mustang, many of whom sought treatment from local traditional healers. Alternatively, Author and colleagues (2020) used a locally validated, structured observational rating scale, titled Enhancing Assessment of Common Therapeutic factors (ENACT), to measure the psychotherapeutic factors in common between traditional healers and conventional psychotherapists within the Central Middle Hills of Nepal. Yet, blind adoption of structured questionnaires, interview formats, and biomedical diagnostics could also hamper rather than facilitate meaningful data collection. For instance, Van Ommeran and colleagues (2000) argued that the Composite International Diagnostic Interview (CIDI), which assesses psychiatric somatic complaints, focuses too heavily on 1) the biomedical framework and 2) the assumption that all medical providers deliver diagnoses to their patients, thus confounding its cultural validity in Nepal. In other examples, questions from the locally validated Barriers to Access Care Evaluation (BACE) scale (Clement, et al., 2012), applied by Author and colleagues (2018) to assess stigma reduction among mental healthcare providers, and even the aforementioned McGill Illness Narrative Interview can prove restricting and at times misleading when measuring tacit community biases surrounding indigenous belief models (Author, et al., 2020) or blurred distinctions between the self and other, religion and medicine, etc. (Craig, et al., 2010; Author, et al., 2018).

We now summarize the aforementioned ideas for future research (see Table 3).

## Conclusion

In Nepal, traditional healers' perceived impact appears greatest for mild to moderate forms of psychological distress. However, the methodological and sample heterogeneity preclude uniform conclusions about traditional healing with Nepal, or more broadly in global appraisals of traditional healing. Further research should employ methods which are both empirically sound and culturally adapted to explore the role of traditional healers in mental health. Ultimately, by completing the picture on traditional healers and mental well-being, social scientists, clinicians, and public health practitioners can better understand how and for whom traditional healing impacts distress. The work is also useful to uncover the diverse conceptions of self and how these models shape healing. Medical providers, researchers, and public officials can create a collaborative, integrative, and interdisciplinary approach to offer better wrap around care in a country with serious ongoing mental healthcare disparities. Globally, researchers can apply similar approaches to determine how traditional healers uniquely respond to the non-pharmacological and therapeutic needs of developing countries without resorting to overly prescriptive and medically imperialistic treatment models.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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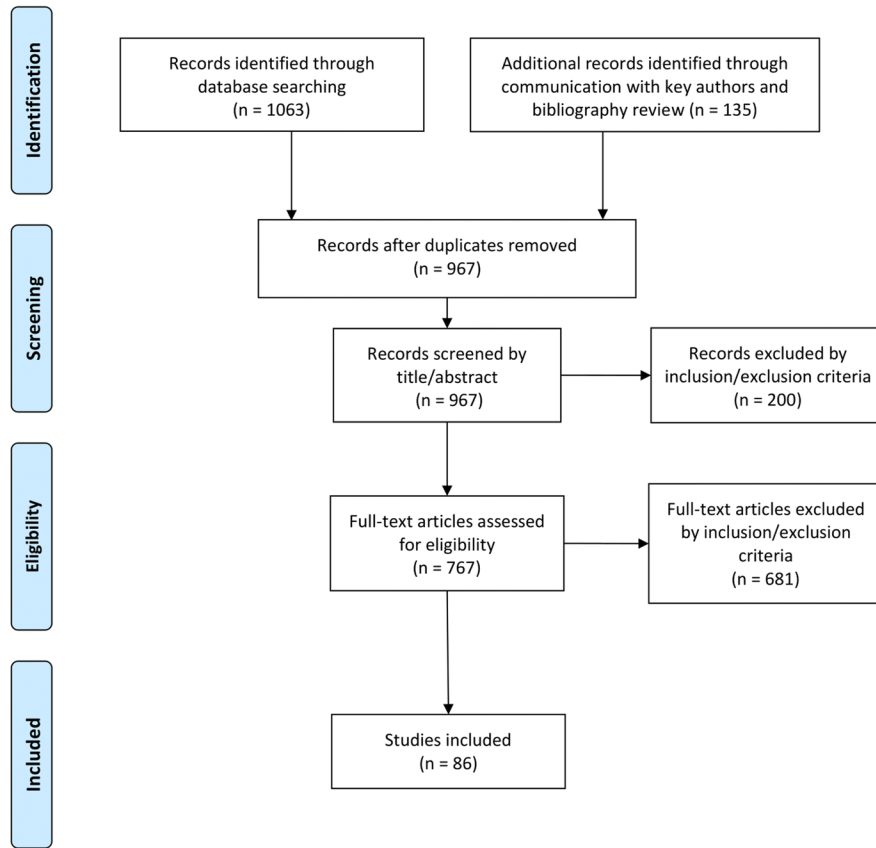
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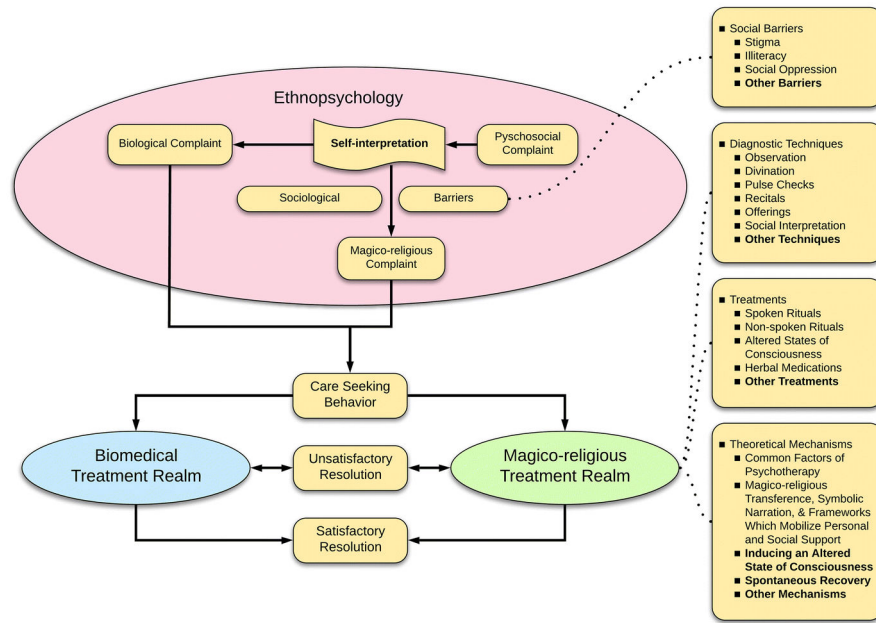
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**Figure 1:**  
PRISMA-ScR Flow Chart



**Figure 2:**  
A Pathways to Care Model Highlighting Current Findings and Gaps in Knowledge

**Table 1:**

## Inclusion/exclusion Criteria

Inclusion Criteria	<ul style="list-style-type: none"> <li>• Relates to traditional healers as defined by Nortje and colleagues (2016)</li> <li>• Relates to psychological outcomes from any involved parties, regardless of concurrent physical outcomes</li> <li>• Discusses the processes by which Nepali traditional healers address mental well-being</li> <li>• Relates to Nepalis regardless of their physical location and includes non-Nepalis residing in Nepal</li> <li>• Includes scientific data, regardless of its “quality” evaluation or study design</li> <li>• Written in English</li> </ul>
Exclusion Criteria	<ul style="list-style-type: none"> <li>• Traditional healing not provided by a traditional healer as per the definition by Nortje and colleagues (2016)</li> <li>• No reference to inclusion criteria outside of one passing sentence about the intersection between Nepali traditional healers and a psychological outcome</li> </ul>

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**Table 2:**

Summary of Reviewed Literature

Design	Study Location/Setting	Study	Sample Size	Ethnicity/Caste	Other Sample Characteristics	Relevant Topics
Case study	Central Himalaya	Alter 2014	1 IDI	NS	Healer with spirit possession and alcohol dependence	Biosemiotics as a way to understand healing and recovery from addiction
Case study	England	Jolly 1999	1 IDI	NS	Gurkha Soldier	Soldier with odd behavior and physical symptoms
Case study	England (British Military Hospital)	Melia 1987	4 IDIs	NS	Patients admitted who were first considered to have physical disease	Witchcraft, spirit possession, psychiatric disease, and <i>dhami-jhankri</i> referrals
Case study	Kathmandu Valley (Bhaktapur)	Katry 2011	2 IDIs	NS	THs	Agreement between healer and patient to do away with destructive supernatural forces
Case study	Kathmandu Valley (Boudhanath, Kathmandu)	Mastromattei 1995	1 IDI	Middle Hills Ethnic Group (Tamang)	1 female <i>bombo</i>	Ecstatic ritual as familial closure for suicide and accidental death
Case study	Mixed (Kathmandu Valley (Kathmandu), Eastern Tarai (Saptari District), Central Tarai (Rupandehi District))	Acharya 2019	3 IDIs	NS	<i>Dhami-jhankri</i> and <i>mata</i>	Positive psychosomatic impact on psychosomatic patients
Cross-sectional	Central Tarai (10 VDCs, Chitwan District)	Luitel 2017	1983 surveys	NS	Adults	Treatment gaps in mental illness
Cross-sectional	Eastern Himalaya (Bhutanese refugee camps)	van Ommeren 2004	1052 surveys	Bhutanese	Tortured and non-tortured adults	THs and psychopathologies treated
Cross-sectional	Kathmandu Valley (Norvic International Hospital)	Hashimoto 2015	50 IDIs	NS	Patients with mental illness	Role of THs in referral to mental health care
Cross-sectional	Kathmandu Valley (urban Kathmandu and nearby villages)	Furr 2004	276 surveys	NS	Teachers	Impact of westernization on deviant behavior
Ethnography	Central Himalaya (Helambu region)	Desjarlais 1991	NS	Sherpa (Yolmo)	NS	Dreams as a vehicle for reporting mental distress
Ethnography	Central Himalaya (Helambu region)	Desjarlais 1992	NS	Sherpa (Yolmo)	NS	THs and mental health
Ethnography	Central Himalaya (Dhading District)	Höfer 1981a	NS	Middle hills ethnic group (Tamang)	NS	Buddhist ritual techniques which interrelate the patient's physical and metaphysical worlds
Ethnography	Central Himalaya (Dhading District)	Höfer 1981b	NS	Middle hills ethnic group (Tamang)	NS	Buddhist ritual techniques which interrelate the patient's physical and metaphysical worlds

Design	Study Location/Setting	Study	Sample Size	Ethnicity/Caste	Other Sample Characteristics	Relevant Topics
Ethnography	Central Himalaya (Dhading District)	Höfer 1992	NS	Middle hills ethnic group (Tamang)	NS	Informative diagnosis and ecstatic ritual as meaningful and self-distancing therapy catharsis
Ethnography	Central Himalaya (Dhading District)	Höfer 1994	NS	Middle hills ethnic group (Tamang)	NS	Buddhist ritual techniques which interrelate the patient's physical and metaphysical worlds
Ethnography	Central Himalaya (Annapurna massif)	Messerschmidt 1976	NS	Middle hills ethnic group (Gurung)	NS	Religious traditions as a way to rationalize the world
Ethnography	Central Himalaya	Michl 1976	NS	Mixed (Chantel, lower caste (Kami))	NS	TH's ability to strengthen community's psychological adaptation to harsh environments
Ethnography	Central Himalaya (Annapurna and Dhaulagiri massifs)	Regmi 1987	45 IDs	Middle hills ethnic group (Gurung)	Local <i>Jana</i> and community members	Myth and ritual for personality characterization
Ethnography	Central Himalaya (Jiri Valley, Dolakha District)	Sidky 2000	NS	Mixed (Sherpa, middle hills ethnic groups (Jirel, Tamang)	2 Sherpa <i>dhami-ghantri</i> , 1 Tamang <i>dhami-ghantri</i> , and several Jiral <i>phombo</i>	Role of <i>phombo</i> (Jirel THs)
Ethnography	Central Middle Hills (Khiji, Likhu Khola tributary east bank)	Egli 2014	NS	Kirati (Sunuwar)	NS	Ritual ancestral atmosphere as a domination-free discussion and mediation
Ethnography	Central Middle Hills (Trisuli Bazar, Nuwakot District)	Höfer 1973	NS	Higher caste (Brahman)	NS	Elder presence and active patient participation during seance to create Brahmanical kinship
Ethnography	Central Tarai (Dhanusa District, Tisiyahi Village, Tisiyahi Clinic)	Burghart 1984	NS	Tarai Indigenous Group (Maithil)	Brahmanically and medically influenced exorcist and his patients	Legitimizing folk explanatory paradigms through Brahmanical and medical influence
Ethnography	Central Tarai (Makwanpur District)	Ritboli 2000	NS	Middle hills ethnic group (Chepang)	NS	Healer as therapist and psychopomp who conducts puja to renew motivation and vigor
Ethnography	Central Tarai (Makwanpur District)	Ritboli 2012	NS	Middle hills ethnic group (Chepang)	NS	Consciousness and associated healing systems
Ethnography	Eastern Himalaya	Desjarlais 2003	NS	Sherpa (Yolmo)	NS	<i>Bombo</i> rituals and psychological change
Ethnography	Eastern Himalaya (Bala Village)	Gaenszle 2016	1 observation	Kirati (Mewahang Rai)	TH and his patients	THspeech acts to convey complex agency within a psychological framework
Ethnography	Eastern Himalaya (Eastern Arun Valley)	Hardman 1996	NS	Kirati (Lohorung)	NS	The priest use of <i>saya</i> as a complex symbolic code
Ethnography	Eastern Himalaya (Eastern Arun Valley)	Hardman 2004	NS	Kirati (Lohorung)	NS	The relationship between emotions and ancestors
Ethnography	Eastern Himalaya	S. Jones 1976	NS	Kirati (Limbu)	NS	Social determinants of spirit possession
Ethnography	Eastern Himalaya (Dolakha District)	Miller 1979	NS	Middle hills ethnic group (Thami)	NS	Creating the expectation of improvement and naming the underlying spiritual illness

Design	Study Location/Setting	Study	Sample Size	Ethnicity/Caste	Other Sample Characteristics	Relevant Topics
						to relieve tension and psychosomatic illness.
<b>Ethnography</b>	Eastern Himalaya (remote Hongu river watershed, south of Mount Everest)	Nicoletti 2006	NS	Kirati (Kulunge Rai)	NS	Creating order and meaning through ritual
<b>Ethnography</b>	Eastern Himalaya (Shorong region, Solukhumbu District)	Paul 1976	NS	Sherpa	NS	TH control of madness
<b>Ethnography</b>	Eastern Himalaya (Bhojpur Bazaar)	Pigg 1995	NS	NS	NS	The overlap between healer therapeutic aspect and the social dynamics they produce, deliver, and sustain
<b>Ethnography</b>	Eastern Himalaya (Mewakholia area, Limbu)	Sagant 1976	NS	Kirati (Limbu)	NS	TH initiation and sacrificial rituals
<b>Ethnography</b>	Eastern Himalaya (Solukhumbu District)	Soubrouillard 1995	5 IDIs	Mixed (Tibetan, Nepali)	2 females and 3 male THs	Treatment of mental illness by THs
<b>Ethnography</b>	Eastern Himalaya (Solukhumbu District)	Walter 2001	NS	Higher caste (Chetri, Brahman), Lower caste (Kami, Damai), Kirati (Rai), Middle hills ethnic group (Tamang), Sherpa	NS	Rites which bind various communities into a broad network of shared commonalities and experience
<b>Ethnography</b>	Eastern Middle Hills (outpatient neurology/medicine, tertiary care center)	Bajaj 2013	100 IDIs	NS	Patients with neurological disorders	Psychosocial relationships to neurological disease
<b>Ethnography</b>	Eastern Middle Hills (Bhutanese refugee camp)	Chase 2017	NS	Bhutanese	Refugees	Spiritual care of Bhutanese refugee distress
<b>Ethnography</b>	Eastern Middle Hills (village near the Tamba and Mauling Rivers)	Fournier 1976	NS	Kirati (Sunuwar)	NS	Spirit possession and the sacrificial performances by THs
<b>Ethnography</b>	Eastern Middle Hills (Terhathum District)	R. Jones 1976	NS	Kirati (Limbu)	NS	Roles of psychiatrists, THs, and priests
<b>Ethnography</b>	India (Darjeeling Hills of West Bengal and Sikkim)	Hyam 2019	NS	Kirati (Limbu, Rai), Middle hills ethnic group (Gurung, Tamang), Newar	Villagers, THs, and Bauls (mystic minstrels)	Music which engenders body-self integration, sociopolitical subversion, and psychophysiological healing.
<b>Ethnography</b>	India (Eastern Kumaon, former kingdom of Askot)	Lecomte-Tilouine 2009	NS	NS	NS	Rituals which seek help, confront grievances, and bring communal disputes into public space of gods' arbitration
<b>Ethnography</b>	India (Kalimpong Sub-district, Darjeeling, West Bengal)	Macdonald 1976	NS	NS	Nepali immigrant population	The sociological and psychological roles of <i>dhami/jhankri</i>
<b>Ethnography</b>	Kathmandu Valley (Kathmandu, Bhaktapur, and Patan, and the town of Banepa)	Greene 2002	110 IDIs	Newar (Manandhar)	Some goldsmiths of the Shakya and Vajracharya	Buddhist buffalo horns which reconceptualize the body and actualize beliefs about death and rebirth

Design	Study Location/Setting	Study	Sample Size	Ethnicity/Caste	Other Sample Characteristics	Relevant Topics
					Buddhist castes, farmers, monks, priests.	
<b>Ethnography</b>	Kathmandu Valley (northwest of Kathmandu, north of the Salankhu River, between the Trisuli and Ankhu rivers)	Holmberg 1989	NS	Middle hills ethnic group (Tamang)	NS	TH madness and healing rituals
<b>Ethnography</b>	Kathmandu Valley	Parish 1991	NS	Newar	NS	Sacred and moral concepts of the Newar mind, self, and emotion
<b>Ethnography</b>	Kathmandu Valley (psychiatric outpatient clinic and healer village)	Skultans 1988	NS	NS	Hospital patients consulting for mental illness and THs	A comparison of patients who are seen by THs versus those seen by medical hospitals
<b>Ethnography</b>	Kathmandu Valley (The Centre for Victims of Torture (CVICT))	Tol 2005	3 case studies	NS	Patients seen at CVICT	Culturally adapted psychosocial counseling
<b>Ethnography</b>	Mixed (Kathmandu Valley (mountains to the east and west), Central Tarai (recently settled southern areas))	Peters 2004	NS	Middle hills ethnic group (Tamang)	TH guru	Phenomenology, mystical experience, and healing rituals of Tamang THs
<b>Ethnography</b>	Mixed (Kathmandu Valley (mountains to the east and west), Central Tarai (recently settled southern areas))	Peters 2007	NS	Middle hills ethnic group (Tamang)	TH guru	Phenomenology, mystical experiences, and healing rituals of Tamang THs
<b>Ethnography</b>	Mixed (Central and Eastern Himalaya (primarily the Dolakha and Sindhupatchowk Districts))	Shneiderman 2015	NS	Middle Hills Ethnic Group (Thangmi)	NS	Origin myths, rituals, and mental well-being
<b>Ethnography</b>	Western Himalaya (Mustang District, Muktinath Valley)	Craig 2010	44 IDIs	Tibetan	<i>amchi</i> (practitioners of Tibetan medicine), <i>mopa</i> (diviners), <i>ngakpa</i> (tantric specialists)	Conceptions of known illness as a misalignment of local spiritual forces
<b>Ethnography</b>	Western Himalaya (southwestern foothills, Dhaulagiri massif)	Hitchcock 1973	NS	Middle hills ethnic group (Bhujel)	NS	Séances which answer bothersome questions, mirror ambiguity, and allow expression of deeply seated sexual anxieties
<b>Ethnography</b>	Western Himalaya (southwestern foothills, Dhaulagiri massif)	Hitchcock 1976	NS	Middle hills ethnic group (Bhujel)	NS	TH séances to overcome grief
<b>Ethnography</b>	Western Himalaya (Gyasundo region, northern village of Tshap)	Mumford 1989	NS	Middle hills ethnic group (Guring)	NS	Tibetan rituals which ensure happiness and general well-being
<b>Ethnography</b>	Western Himalaya	Winkler 1976	6 IDIs	4 higher caste (Chhetri, Brahman), 2 lower caste	6 <i>dhami jhankri</i>	Social contexts of the <i>dhamij hankri</i>

Design	Study Location/Setting	Study	Sample Size	Ethnicity/Caste	Other Sample Characteristics	Relevant Topics
<b>Ethnography</b>	Western Middle Hills (Lamjung District)	van Leeuwen 2008	26 IDIs, 5 FGDs	Mixed (Newar, middle hills ethnic group (Gurung), higher caste (Chetri), lower caste (Dhalit))	20 THs (ages 45–80 years, 9 trained in psychosocial counseling), 3 local psychosocial workers, 1 head nurse, 2 doctors	The role of THs in psychosocial counseling
<b>Ethnography</b>	Western Middle Hills (Jajarkot and Rukum Districts)	Maskarinec 1995	NS	NS	NS	Relations among language, action, and social realities
<b>Ethnography</b>	Western Tarai	Reinhard 1976	NS	NS	Purbia Raji speaking hunter-gatherer communities	Effects of TH personality
<b>Ethnography</b>	Western Tarai (drainage basins of the Karnali and Mahakali rivers)	Gaborieau 1976	NS	NS	NS	Personalities of THs and gods
<b>Ethnography</b>	Western Tarai (Palpa District)	Harper 2014	4 IDIs	NS	1 lama, otherwise NS	Idioms of distress and the phenomena of multiple physical complaints
<b>Ethnography</b>	Western Tarai (remote region)	Author 1999	52 IDIs	Tarai Indigenous Group (Tharu)	Villagers	Neuropsychiatric complaints of <i>jhuun-jhuun</i>
<b>Grounded theory</b>	Central Tarai (Chitwan District)	Brennan 2014	83 (33 KIIs and 9 FGDs)	NS	Community members and health facility/organization workers	The relationship between traditional and biomedical sources
<b>Grounded theory</b>	Central Tarai (Dhanusha District)	Clarke 2014	22 IDIs and 12 FGDs	NS	IDIs with distressed mothers and a <i>dhami-jhankri</i> ; FGDs with community members	Treatment of maternal tension by <i>dhami-jhankri</i>
<b>Grounded Theory</b>	Kathmandu Valley	Author 2010	33 free-listing/emotion mapping activity, 32 IDIs	Mixed (Bhutanese, Newar, middle hills ethnic groups (Gurung, Magar), Kirati (Rai))	One male NGO psychosocial counselor	Expression of psychological trauma
<b>Grounded theory</b>	Western Middle Hills (Pyuthan District)	Kisa 2016	26 KIIs and 9 FGDs	NS	NS	Reducing the mental health accessibility gap
<b>Literature review</b>	Mixed (Central Himalaya (mostly Dolokha District), Central Middle Hills (Kavrepalanchok district), and Central Tarai (Chitwan District))	Sidky 2008	NS	Mixed (middle hills ethnic groups (Jiral, Gurung, Tamang), higher caste (Chhetri), Kirati (Rai), Sherpa)	NS	Overview of THs
<b>Literature review</b>	NS	Kuruville 2015	NS	NS	NS	Referral networks between THs and the primary health care system
<b>Literature Review</b>	NS	Busick 1978	NS	NS	NS	Promoting social integration and community solidarity through reinforcement of religious reality

Design	Study Location/Setting	Study	Sample Size	Ethnicity/Caste	Other Sample Characteristics	Relevant Topics
Literature review	NS	Evers 2016	NS	NS	NS	THs versus the biomedical approach to childhood trauma
Literature Review	NS	Gewali 2008	NS	NS	NS	Traditional medicine and medicinal plant resources
Literature review	NS	Author 2008	NS	NS	NS	Mind-body relations, mental health, and provider preferences
Literature review	NS	Sidky 2010	NS	NS	NS	THs, human religiosity, and neurotheology
Literature Review	NS	Lecomte-Tilouine 2009	NS	NS	NS	Rituals which may answer distress related to the social order
Mixed methods	Central Himalaya (Thumpakhar and Thulopakhar VDCs, Sindhupalchowk District)	Lohani 2010	81 surveys; # NS for IDIs, KIIs, and FGD	Middle hills ethnic group (Tamang)	Surveys targeted the head of the household	Tamang-animal relationships
Mixed methods	Central Himalaya (Sangachowk VDC, Sindhupalchowk District)	Sapkota 2014	38 case-control participants, 7 IDIs, 3 FGDs	Mixed (lower caste (Dalit) higher caste (Giri, Brahman))	Possessed and non-possessed women, school teachers, a NGO worker, family members, and a Hindu priest	Cultural contexts and psychosocial correlates of spirit possession
Mixed methods	Central Middle Hills	Author 2020	84 IDIs, 4 observational rating scales	Mixed (higher caste (Brahman, Chetri), Newar, lower caste (Badhai, Dalit), indigenous Terai group (Yadab), middle hills ethnic group (Tamang), Sherpa (Lama), Sikh)	Mixed religions (Hindu, Buddhist, Muslim, Satsai), IDIs with patients, THs, observational rating scales on <i>dhami-jhankri</i> , <i>Jyotisi</i> (astrologers)	Common and specific factors shared between THs and conventional psychotherapy
Mixed methods	Kathmandu Valley	Author 2014	142 surveys, 24 case studies, 152 KIIs, 25 FGDs	NS	KIIs/FGDs with children and community members: case studies with child soldiers	Rituals used during the reintegration of child soldiers following the Maoist Insurgency
Mixed methods	Western Middle Hills (Jajarkot District, Kadi)	Subba 2007	# NS for surveys, case studies, IDIs, and FGDs	Higher caste (Thakuri, Chhetri)	Household heads, THs, patients	Kadi recitals, cultural logic, and psychosocial distress
Mixed Methods	Mixed (Western Middle Hills (Syangja District, Mahendranagar municipality), Central Himalaya (Charikot municipality), Eastern Himalaya (Ilam municipality))	Shrestha 1980	99 interviews/surveys	Mixed (higher caste (Brahman, Chhetri, Thakuri), Newar, lower caste (Karni, Sarki), Middle hills ethnic groups (Gurung, Magar, Tamang, Thami), Tarai Indigenous Group (Tharu))	NS	THs as therapeutic leaders of syncretic religious background who connect with spiritual struggle for better life



Design	Study Location/Setting	Study	Sample Size	Ethnicity/Caste	Other Sample Characteristics	Relevant Topics
<b>Opinion</b>	Eastern Himalaya (Arun Valley)	Hyman 2006	NS	Mixed (Higher caste (Chhern), Kirati (Rai), Middle Hills Ethnic Group (Gurung), Tibetan)	NS	TH impact on village well-being
<b>Opinion</b>	Kathmandu Valley	Gellner 1994	NS	NS	NS	Mediums, spirits, psychosocial issues, and blood sacrifices
<b>Opinion</b>	NS	Dickinson 1988	NS	NS	NS	Special role of THs in treating psychiatric disease
<b>Opinion</b>	NS	Dickinson 1988	NS	NS	NS	Special role of THs in treating psychiatric disease
<b>Opinion</b>	NS	Hitchcock 1976	NS	NS	NS	THs in comparison to psychiatrists

(NS = Not Specified; IID = In-depth Interview; KII = Key Informant Interview; FGD = Focus Group Discussion; VDC = Village Development Committee; TH = Traditional Healer)

**Table 3:**

Ideas for Future Research

Domain	Potential Gaps
Study Design	<ul style="list-style-type: none"> <li>• Systematic/scoping review of epidemiological and economic patient-healer data, formalized traditional healers, healer-related pathways to care, healer-related psychological outcomes, and Nepali written literature.</li> <li>• Community Field-based Research (CFBR)</li> <li>• Technological avenues for research communication across parallel study groups</li> <li>• Interventional clinical trials research</li> <li>• Consolidated Framework for Implementation Research (CFIR)</li> </ul>
Structured Instruments	<ul style="list-style-type: none"> <li>• Medical examinations and psychometrics</li> <li>• Standardized qualitative research tools to elicit illness narratives</li> <li>• Objective rating scales to measure traditional healer interventions and magico-religious and psychiatric phenomena</li> <li>• Neurodiagnostic approaches to measure biological underpinnings</li> </ul>
Access to Care	<ul style="list-style-type: none"> <li>• Specific contexts which influence access to care</li> <li>• Social and economic barriers</li> <li>• Common patterns of self-interpretation</li> <li>• Idioms of distress not yet biomedically studied</li> <li>• Solutions to overcoming barriers</li> <li>• Solutions to better match care seeking behavior to the appropriate intervention</li> </ul>
Interventions	<ul style="list-style-type: none"> <li>• Interventions not yet biomedically studied</li> <li>• Relationships which link specific patient care seeking behaviors to traditional healer interventions</li> </ul>
Theoretical Mechanisms of Healing	<ul style="list-style-type: none"> <li>• Mechanisms of healing not yet biomedically theorized</li> <li>• Relationships which link specific traditional healer interventions to the patient's mechanism of healing</li> <li>• Other common factors in psychotherapy underlying magico-religious healing besides empathy and raised expectations</li> <li>• The comparison between traditional healers and other evidence-based providers with respect to common factors in psychotherapy</li> <li>• Solutions for evidence-based providers to better interface with the factors of psychotherapy specific to traditional healers</li> </ul>
Outcomes	<ul style="list-style-type: none"> <li>• Outcomes of magico-religious healing</li> <li>• How patients seek treatment if they encounter an unsatisfactory resolution</li> </ul>

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<b>Domain</b>	<b>Potential Gaps</b>
	Relationships which link specific patient mechanisms of healing to their perceived level of satisfaction
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