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Kei te moe te tinana, kei te oho te wairua – As the body sleeps, the spirit awakens: exploring the spiritual experiences of contemporary Māori associated with sleep

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ABSTRACT

For Aotearoa New Zealand Māori, sleep and wairua (spirit) are closely intertwined. During sleep the wairua awakens and journeys across multiple dimensions of time and space to attain the tools and knowledge the individual needs to navigate waking life. While this function of sleep is understood within Mātauranga Māori (bodies of knowledge regarding everything within the universe) (Hikuroa 2017), it has yet to be explored within psychological sleep research. This qualitative study contributes to addressing this gap by exploring nine Māori participants' personal experiences of wairua during sleep. A whakapapa thematic analysis identified two interconnected layers. The first layer contributed to a spiritual explanatory framework for sleep, developed to encompass participants' beliefs regarding wairua, which were utilised to interpret their sleep experiences. The second layer describes these interpretations, comprised of three central themes: (1) Tohu/Guidance; (2) Ako/Space and time for learning; and (3) Tau/Attaining a state of stability, peace, and purpose. These findings suggest that the spiritual experience of sleep supported participants in navigating their waking lives safely, purposefully, and meaningfully, contributing to Indigenous and Māori scholarship regarding the spiritual and cultural purpose of sleep, and with important implications for clinical, social, and academic approaches to understanding and supporting sleep.

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Introduction

We spend approximately one third of our lives asleep – an activity identified as key in supporting health, function, and wellbeing (Siegel 2003). How we understand and 'do' sleep is not a common universal process. At the individual and social level we must apply meaning to sleep's role and purpose, then negotiate its practice around the sleep of others as well as waking responsibilities (Williams 2002; Meadows 2005). Within

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contemporary Western, Education, Industrialised, Rich, Democratic (WEIRD) (Henrich et al. 2010) societies, there has been a greater proliferation of socially constructed messages conveying the ‘right’ way to sleep and the perils of not doing so (Williams et al. 2013). The dominant form of sleep science remains biomedical, focusing on the functional aspects of sleep and utilising objective measures developed and normed on WEIRD samples, limiting the representativeness of sleep science to around 12% of the world’s population (Henrich et al. 2010). Thus, it is WEIRD experiences of sleep that dominate contemporary norms regarding the ‘right’ way to sleep (Williams et al. 2021). A further consequence of this privileging of WEIRD perspectives is the limited consideration given to more diverse cultural interpretations of sleep – particularly in terms of what sleep is, how it should be done, and what meaning it has – and how these might affect sleep rituals, habits, attitudes, and perspectives (Grandner 2017; Hale et al. 2020). This has prompted several authors to highlight a need for integrated research examining the sociological and cultural elements of sleep (e.g. Williams et al. 2013; Airhihenbuwa et al. 2016).

For many people and communities, the phenomenological experiences of sleep are just as or more relevant than the somatic need for sleep (Steger and Brunt 2003; Grandner 2017). From an axiological perspective, sleep was historically considered as having equivalent, if not greater value than waking consciousness, on account of it being ‘a privileged state for experiencing divine revelation’ (Powell 2018, p. 473). Rather than a collection of random brain activity and hallucinatory visions, sleep and dreaming were imbued with deep spiritual and existential meaning and, as such, have served important roles in many psychological theories and therapies (Glaskin 2011; Palagini and Rosenlicht 2011; Powell 2018; Mota-Rolim et al. 2020). However, social and cultural norms, as well as individual experiences, feelings, and beliefs related to sleep and dreaming remain largely overlooked in current research, possibly due to their inherent subjectivity and juxtaposition to medicalised perspectives (Hufford 2005; Mota-Rolim et al. 2020).

While the spiritual meanings of sleep are often downplayed in contemporary WEIRD cultures (Steger and Brunt 2003), previous literature does suggest that common sleep states and ‘disturbances’ – such as sleep paralysis (a feeling of being conscious but unable to move) and hypnagogic and hypnopompic ‘hallucinatory’ experiences (during transitional states of consciousness between wakefulness and sleep) – are often described by the sleeper as spiritual phenomena (Hufford 2005; Adler 2011). In many non-WEIRD and Indigenous cultures, discourses acknowledging the spiritual significance of sleep states, including those deemed ‘pathological’ in contemporary WEIRD contexts, remain common. For example, Inuit refer to a condition that parallels sleep paralysis as *uqumangirniq*, maintaining its causality is a consequence of malevolent shamans who work to separate the *tarniq* (soul) from the body during sleep (Law and Kirmayer 2005). Similarly, Egyptian culture maintains a belief that spirit entities with malevolent intent, known as *Jinn*, are responsible for sleep-paralysis (Jalal and Hinton 2013). The Yoruba peoples of southwest Nigeria maintain a female spirit demon known as *Ogun Oru*, takes physical and psychological possession during sleep (Aina and Famuyiwa 2007). In Thailand, hypnological phenomenon is believed to be caused by ghost hauntings (Cassaniti and Luhrmann 2014). While a sleep state of *kanashibari* is described by some Japanese as having similar characteristics to sleep paralysis, it is

also believed to be the work of a malevolent spiritual entity intent on suffocating the helpless sleeper (Fukuda et al. 1987). The common reference to soul, spirit, and ghosts inherent across these diverse cultural contexts suggests rich belief in spiritual components demarcating the sleep cycle.

For Māori, the Indigenous peoples of Aotearoa New Zealand, the spiritual dimension of existence is encompassed by the term *wairua*. The various descriptions of *wairua* across literature creates a complex and nuanced picture of this vital dimension of Māori lived experience. *Wairua* is identified as ‘the source of existent being and life’ (Marsden 2003, p. 47), interwoven with our person, actions, and the world in which we live (Pere 1982), essential to the existence of the physical body (Henare 2001), and necessary for attaining wellbeing (Durie, 1985). For generations, knowledge pertaining to *wairua* has been acquired experientially and then embedded within various forms of oral communication to be safely disseminated to future generations (Whiteford and Barns 2002; Lee 2008). The Māori belief that the body houses a *wairua* and that the *wairua* plays a fundamental role in sleep, is likely derived from cosmological, epistemological, and ontological knowledge systems, known as *mātauranga* (Henare 2001; Hikuroa 2017), which suggest reality is a function of a ‘woven universe’ (Marsden 2003), comprised of both the *taha wairua* (the spiritual dimension) and the *taha kikokiko* (the flesh or material dimension) (Moeke-Maxwell et al. 2020a, 2020b). Human beings are a consequence of the intertwining of these two dimensions, which thus provides an ability to traverse multiple seen and unseen dimensions. While the physical body remains within the material realm, the spiritual aspect (i.e. *wairua*) is able to move across the numerous metaphysical dimensions that Māori believe exist, particularly during sleep (Valentine 2009; Lindsay et al. 2022).

While *wairua* occurrences are anecdotally commonplace within Māori society, literature regarding the expression of *wairua* as it relates to sleep is largely based on historical writings of early non-Māori settlers (Lindsay et al. 2022, 2021). The ethnographer Elsdon Best provides some of the most in-depth accounts of the *Ngāi Tūhoe* (one of the many Māori *iwi* or tribes) perspective of the relationship between *wairua* and sleep. According to Best (1900), during sleep the *wairua* of a person becomes disembodied and travels throughout the universe. During this time, it may interact with the *wairua* of others (both living and dead) or keep watch for any danger that may threaten the physical body. Due to the *wairua* travelling, it was considered important the person was not woken suddenly, lest their *wairua* be unable to return from their travels back to the physical body. Although Best’s accounts were published more than a century ago and reflect the etic perspectives of a non-Indigenous observer, recent research by Lindsay et al. (2022) exploring the spiritual experiences of contemporary Māori identified phenomena aligning with Best’s descriptions. The focus of Lindsay et al.’s research was on the broader experiences of *wairua* that occurred across all dimensions and states of human lived reality. However, there was one theme, *te wehenga te wairua me te tinana* (*disembodiment experiences*), that described the capacity of the *wairua* to separate from the physical body and enter into a non-material dimension of existence, particularly during sleep, illness or life threatening events (Lindsay et al. 2022). Though the literature exploring the relationship between *wairua* and sleep specifically remains limited, what has been identified, (along with oral anecdotes), indicates a pertinence of sleep states for Māori,

with wairua seen as essential in protecting and acquiring vital knowledge to assist the physical body in safely navigating the material world (Olson 1993).

Though the importance of wairua for Māori wellbeing has been widely identified by Māori health experts (e.g. Valentine 2009; Ripikoi 2015; Mildon 2016; Elder 2017; NiaNia et al. 2017b), sleep-related research in Aotearoa New Zealand has predominantly been of an epidemiological focus. For example, identifying factors associated with problem sleep and comparisons of sleep inequities between Māori and non-Māori (e.g. Paine et al. 2005, 2016; Mihaere et al. 2009; Paine and Gander 2016; Signal et al. 2022). Sleep inequities among Māori have been linked primarily to specific quality-of-life factors, such as racial discrimination and socioeconomic position. However, other considerations have been highlighted such as differences in survey response rates among Māori (Fink et al. 2011), and concerns of the validity of using questionnaires standardised in WEIRD populations, which simplify and objectify sleep in an attempt to define sleep ‘problems’ in ways that may be less relevant for Māori (Gibson et al. 2016). A recent interview study indicates nuanced differences in the perceptions and practices of sleep among older Māori compared to older non-Māori (Crestani et al. 2022). For example, a positive experience was expressed around fitting sleep in around the routines and needs of whānau (family). Furthermore, rather than being an inconvenience, periods of wakefulness or early rises were more often appreciated as providing opportunities for quiet reflection, creativity, or connection with wairua (Crestani et al. 2022). However, the focus of these interviews was on aspects of sleep health with ageing. Focusing on (for example) changes to the timing, regulation, and perceptions of sleep disorders with ageing, as well as waking alertness and function. Dreaming, spirituality, or wairua were not specifically addressed. Rather, such themes arose as unsolicited, tangential comments from a small number of participants, indicating a need for further focused research. The aim of the present research was to therefore build on this, moving beyond the limited articulations of sleep status for Māori with a focus on the experiences that occur around and during sleep and dreaming that have spiritual significance and meaning.

Materials and methods

Methodology

Our research was guided by the principles of Kaupapa Māori research (KMR) – an Indigenous research methodology that applies a Māori lens to research design, method, and evaluation (Smith 2015). KMR is, at its essence, about being Māori (Moewaka Barnes 2008). It incorporates both the values and customs that underpin Māori culture (Moeke-Maxwell et al. 2020a, 2020b), whilst acknowledging the diverse social and political realities that Māori inhabit in contemporary times (Durie 1995). KMR approaches are primarily informed by key values, such as whanaungatanga (meaningful relationship building), manaaki (reciprocal care, attentiveness, spiritual enhancement), and aroha (love, respect). In the current research, a focus on values ensured the diverse realities of Māori were acknowledged appropriately in the interaction between the researcher and participant. Where requested, karakia (prayers, incantations) were incorporated before and after participation. Te reo Māori (Māori language) was used by some participants to

communicate their understandings of their experiences. The sharing of kai (food), a cultural imperative that is but one demonstration of manaakitanga, was also offered to all participants. In this way, a safe space – culturally and spiritually – was created.

Participants

A small convenience sample were recruited to explore and represent examples specifically relating to wairua and sleep. Nine participants who self-identified as Māori were recruited via the process of whanaungatanga (existing acquaintanceship networks). The recruitment process began by approaching key contacts known to have knowledge and experience with wairua-related sleep phenomena. Via a process akin to snowballing, these key informants then recommended others with similar characteristics. The final sample were aged between 24 and 63 years and held diverse understandings of tikanga Māori (Māori customary practices), mātauranga, and te reo Māori. Most (six) were female, and the majority had received a higher education, with six having received tertiary level education, two at post-secondary level, and one at secondary (high school) level. In total, participants represented 19 different iwi, including Ngāti Tūwharetoa, Ruawaipu, Ngāti Porou, Te Arawa, Ngāti Kahungunu, Ngāti Raukawa ki te Tonga, Ngāti Kauwhata, Ngāti Toa Rangatira, Ngāti Koata, Rangitāne, Ngāti Ranginui, Ngai Te Rangi, Ngāti Maniapoto, Tūhoe, Whakatōhea, Taranaki, and Ngāti Pūkenga.

Procedures

Face-to-face, semi-structured interviews were conducted by a Māori member of the research team (DH). Written and verbal consent was sought prior to each interview. All interviews were digitally recorded and had an average length of 62 min. The interviews were conversational in style, aligning with the Māori oral tradition of *kōrero*, which encompasses conversing and expressing one's thoughts to another in a way that aligns with the preferred modes of interaction among Māori (e.g. face-to-face communication and oral storytelling) (Ware et al. 2018). This process of *kōrero* created a safe space for engagement, ensuring that participants felt safe in sharing their personal narratives. Some open-ended questions were developed as conversational prompts (e.g. 'What is wairua to you?', and 'What connection do you see between wairua and sleep?'), however, in keeping with KMR, the majority of narratives were spontaneously offered, and the line of questioning typically followed the participant's lead. As such, participants became co-creators of knowledge, rather than passive research 'subjects'. The number of interviews was determined by the research team, and recruitment concluded when it was deemed that sufficient information had been collected to meet the objectives of the study.

Data analysis

A whakapapa thematic analysis was used to analyse the data and was conducted by a Māori member of the research team (DH). *Whakapapa* has the literal meaning of 'placing layer-upon-layer' and is often used in reference to genealogy. It has been identified as a central tenet of Māori identity, as well as an essential framework for structuring and organising Māori knowledge and history (Mahuika 2019). From a Māori perspective,

‘every word, thought, object, mineral, place and person’ (Mahuika 2019, p. 1) has a genealogy. Within research, whakapapa is utilised as a methodological framework to privilege a Māori worldview and guide engagement between Māori researchers and communities (Graham 2009). Incorporating the concept of whakapapa into data analysis ensured the full genealogy of participants’ experiences and knowledge, and maintenance of the holistic way in which many Māori perceive and interpret reality. The results of the whakapapa thematic analysis therefore encompass both the participants’ individual interpretations of their experiences and the genealogical origins of these interpretations, which may have broader cultural, societal, or familial geneses.

Initial analyses were presented to and reviewed by the participants and other members of the research team to ensure a collaborative approach was taken. Due to the complexity and depth of the participants’ narratives, the decision was made to include rich and at times lengthy data excerpts to minimise misinterpretation of participants’ words and ensure the essence of the narratives were protected (Lindsay et al. 2022). Furthermore, while the themes represented common expressions of the participants, the excerpts that were chosen came from a unique subset of the participant group who expressed their narratives in great depth and detail. Whakapapa was also used to guide the decision regarding the pseudonyms assigned to each participant. The pseudonyms come from the karakia *Ko te Pū*, which narrates the whakapapa or origins of the universe (Marsden 2003). Each of the pseudonyms reflect the different developmental periods of the universe. The pseudonyms are Te Pū (the seed), Te More (tap root), Te Weu (rootlets), Te Aka (creeper vine), Te Rea (growth), Te Waonui (great wood), Te Kune (conception), Te Whē (sound), Te Kore (realm of infinite potential). These were discussed with and approved by the participants.

Results

The whakapapa thematic analysis of participant narratives resulted in the construction of two layers of findings, demonstrating the importance of context in the interpretation of lived experiences. The first layer was used to create a wairua explanatory framework (as illustrated in Figure 1) illustrating how participants utilised their beliefs and understandings regarding wairua – and how it manifests during the day and night – to interpret their experiences of wairua during sleep. The framework identifies the genealogical origins of the participants’ interpretations of their sleep-related experiences, and that waking is of the kikokiko dimension while sleep is of the wairua dimension, with these two dimensions also understood to be interconnected. The second layer was informed by the first layer and comprises the participants’ interpretations of their sleep-related experiences, including the meanings and purpose they assigned to these experiences. Three key themes were identified in the analysis of these experiences: (1) Tohu/Guidance; (2) Ako/Space and time for learning; and (3) Tau/Attaining a state of stability, peace, and purpose.

The first layer: the genealogical origins of sleep-related experiences

Wairua beings

As shown in Figure 1, the genesis of all sleep-related phenomena and associated wairua-based explanations stemmed from the belief that all beings are primarily wairua beings.

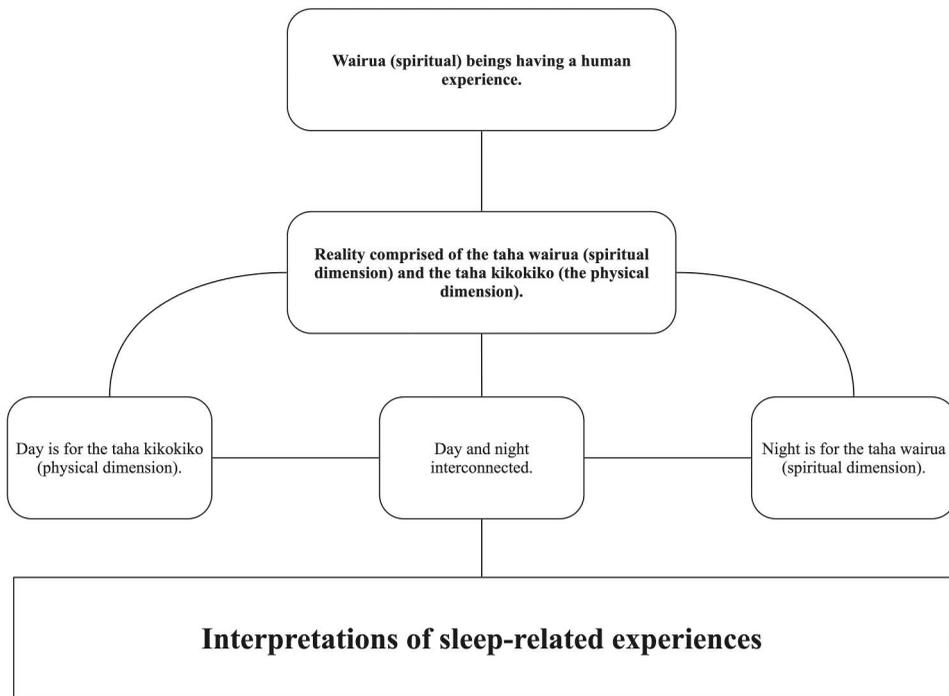


Figure 1. Wairua explanatory framework for sleep.

Some participants specifically described humans as spiritual beings having a human experience. For Te Weu (Female, 47) and Te Whē (Male, 53), this belief stemmed from their lived experiences of wairua. For Te Weu, wairua experiences are a normal part of life for herself and her whānau. Experiences are openly discussed, accepted, and normalised, providing her with both the knowledge and ability to engage with her taha wairua.

We aren't human beings with wairua experiences. We are wairua beings that have human experiences ... in my personal experiences in our whānau, hapū [sub-tribe], iwi, for me I'd say that wairua, we are constituted of wairua, wairua consists within us and around us. (Te Weu)

While Te Whē shares similar beliefs with Te Weu, Te Whē grew up more within te ao Pākehā (the Pākehā or non-Māori world) than te ao Māori (the Māori world), limiting his access to te ao Māori explanations for wairua experiences. However, his religious/spiritual upbringing and experiences, as well as his near-death experience (which resulted in his first-hand experience of the separation of his taha wairua from his taha kikokiko), provided him with the foundation for recognising the essentially spiritual origins of the human experience.

People like to say, 'I had a spiritual experience'. Well, we're having a human experience. You know, spiritual beings having a human experience. Being a human is probably more weird, well should be more weird to us, but there's a veil I think, so we can't remember. For probably good reason, you know, we'd probably jump off a bridge I suppose you know to go back ... I think we've always existed ... we're eternal. (Te Whē)

Other participants expressed this understanding in their descriptions of wairua as all-encompassing – part of everyone, everything and always present, threading the different dimensions of human experience together. For Te Pū (Female, 63), despite growing up during one of the most oppressive eras for Māori in Aotearoa New Zealand (which saw the implementation of policies to oppress spiritual practices and language), she continued to engage with wairua through what would be described as her *matakitetanga* – her ability to see and engage with the unseen or metaphysical realm (Ngata 2014). This often manifested in engaging with deceased whānau and premonitions of future events, particularly during sleep states.

Wairua, it's everything, it's everything around me. It's within me, it's life, it's what keeps you going. It's there to pull you out of somewhere, it feeds your soul. (Te Pū)

Te Waonui (Male, 61), who grew up during the same era, was more exposed to te ao Māori knowledge regarding wairua, having grown up with his mother who was a *matakite* (person who sees the unseen) and wairua healer. This foundation, alongside his personal wairua experiences of engaging with *tūpuna* (ancestors) in the *taha wairua*, informed his understanding of the wairua basis of the human experience.

Wairua is a whole concept of inner Māori and how we relate normal life to spiritual life. So, what's happening around us is influenced by our wairua. (Te Waonui)

Duality – *taha wairua* and *taha kikokiko*

Participant understandings of their own existence as spiritual beings having a human experience framed their understanding of reality. Lived reality for most participants (referring both to the composition of humans, as well as the world in which they inhabit) was identified as being comprised of two dimensions – the physical and the non-physical. In keeping with Māori understandings, this was described by Te Aka (Male, 31) as the *taha wairua* and the *taha kikokiko*. Te Aka had first-hand experience of consciously engaging and shifting between the *taha kikokiko* and *taha wairua* states during waking and sleep states. Viewed through this experiential lens, the waking hours were regarded as predominantly for the *taha kikokiko* while sleep was for the *taha wairua*:

I feel like sometimes during the day, going around doing whatever you're doing, your wairua might not be the main thing that's driving you consciously. The wairua is there still, cause it's with us all the time. But it might not be as awake as it is when we're asleep. At night our wairua comes awake and is free to move around more and experience things. (Te Aka)

Interconnection

While participants did differentiate between night and day as well as sleep and wakefulness, their narratives spoke to an interconnectedness between the *taha wairua* and *taha kikokiko*. What occurred at night with the *taha wairua* impacted the *taha kikokiko* during the day when the person was awake and active, and vice versa, as described by Te More (Female, 51) and Te Aka (Male, 31). Te More also has experience shifting between the *taha kikokiko* and *taha wairua* states. For her, these experiences have been life-long, beginning in her early childhood. Furthermore, her *tūpuna* have been central to

understanding these experiences, and she often has wānanga (a collective meeting to share knowledge and discuss ideas) with them in the taha wairua, enabling her to increase her knowledge of the relationship between the taha kikokiko and taha wairua.

Wairua is an extremely important part of my life, both when I'm asleep as well as when I'm awake. And I don't think it should be separated, from a Māori perspective and from my own perspective, because they're intertwined. (Te More)

While Te Aka shares similarities with Te More in terms of shifting between the taha kikokiko and the taha wairua, for Te Aka this occurred more in recent years as he began his journey into learning te reo Māori and engaging in wairua-based practices, such as karakia. However, his lived experiences of wairua have provided him with a solid foundation to recognise the connection between the kikokiko and wairua realms.

I think our wairua is more awake when we're asleep. I feel like you know when we're sleeping it sort of takes over and you know, can go wherever it goes and sort of show us things that relate to our lives when we're awake. (Te Aka)

These examples are reflective of Mātauranga Māori. Like two sides of the same coin, sleep and wake were presented as intimately intertwined entities or dimensions of equal importance.

The second layer: interpreting sleep-related experiences

As illustrated in [Figure 2](#), understanding what sleep *is* (the domain of taha wairua) consequently shaped participants' understandings of what sleep *is for*. Rather than a passive state with inhibited physical and sensory activity, sleep was considered an active, purposeful state that had symbolic and practical utility for participants' waking lives. The meaning and purpose that participants attached to sleep-related experiences, such as dreaming, were arranged into three main themes: (1) Tohu/Guidance; (2) Ako/Space and time for learning; and (3) Tau/Attaining a state of stability, peace, and purpose.

Tohu/Guidance

Sleep often presented opportunities to receive spiritual guidance. This guidance was considered to be directly related to the participant's waking reality, either the direct present or what may happen in the future. For Te Aka (Male, 31), these tohu (signs or omens) often occurred in dream-like states, beginning when he was undertaking research related to karakia and stepping into an important role within his whānau related to the practice of karakia. Central to this role is spiritual safety. Thus, it was vital that he be exposed to these tohu so he may learn how to interpret them and ensure spiritual safety is attained in his waking life:

I often have little tohu in my dreams that are related to what's happening in my life. And the dream will kind of give me an understanding or even just kind of like a little warning. Often, I won't know it's a tohu until something happens during the day and I'm like 'Oh, that's connected to what I just had a dream about'. (Te Aka)

Guidance came in different forms to different participants. Several incidences akin to the WEIRD notion of precognition (having or giving foreknowledge of an event) were

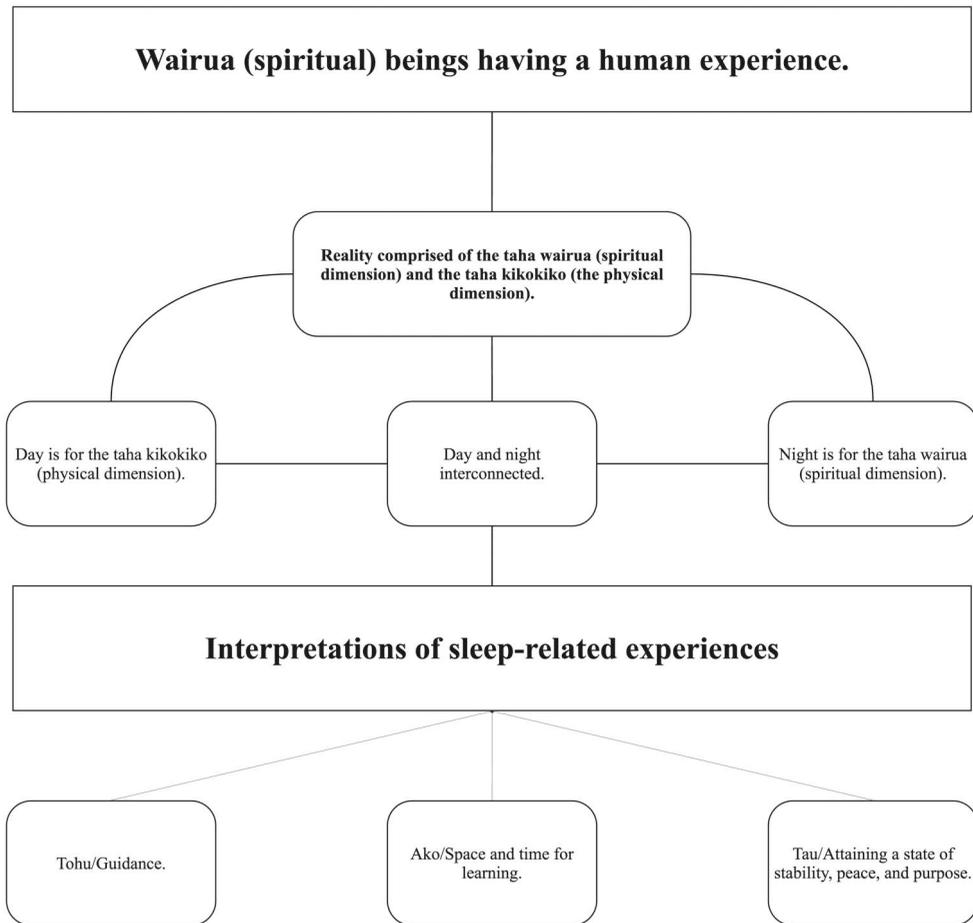


Figure 2. Wairua explanatory framework for sleep and participant interpretations of sleep-related experiences.

reported, which accurately foretold future events. Deceased family members and tūpuna often featured prominently in the deliverance of this information. For Te Kune (Female, 24), the delivery of these tohu began during her fourth year at university, when she had her first wairua experience. Her maternal grandmother was often the main deliverer of these tohu. Her grandmother was a central part of her upbringing, having lived with her and her parents throughout her early childhood years. Her grandmother was also highly spiritual, and often spoke of her experiences. Te Kune's strong relationship with her grandmother established in the taha kikokiko had, upon the death of grandmother's physical body, transitioned into the taha wairua, ensuring she continued to receive guidance to help her navigate her lived reality:

So, I've never dreamt of my nana before and she passed when I was in primary school, so over 10 years. Never seen her and she popped up in my dream and I was so excited to see her cause obviously I miss her and never saw her in my dreams before. She looked exactly how I remembered her and she came with a big smile and said 'so good to see you' and gave me a big hug. And it felt really real, like I could feel the hug and everything

... And then I woke up ... and then it was maybe a couple days later I was kind of starting to think 'why did you come to my dreams?'. She's never visited me before and clearly I figured out why when a week later my grandad, her partner, passed. (Te Kune)

While a number of participants received such messages during dreams, others received guidance during periods of night-time wakefulness. For example, Te Pū (Female, 63), who has long received premonitions for the future in both sleep and waking states, sensed that her son would be hurt or harmed in some way if he continued with his plans to move overseas. A few months after he had left she received communication from her tūpuna which confirmed what she had sensed about her son's future:

I was sitting up in bed one night and I couldn't go to sleep so I just sat there, and I could hear them, the old people. They were crying, wailing. It was my grandfather, I think. And it might have even gone back to [great, great, great grandmother] you know, right back. They were just standing, they were really calling out to me, wailing. And then two weeks later I got the call and it was [son] saying he had cancer and he was in a bad way. (Te Pū)

These examples illustrate how Māori participants in this study considered dreaming and visions received during the night to have prophetic value – a treasured and reliable source of insight.

Ako/Space and time for learning

Over half of the participants described sleep as a testing ground or school – a space where they could learn, take action, and gain experience to aid them in their waking lives, as well as develop the strength and resilience needed to face present and future challenges. Many sleep experiences were deemed equivalent to the sensory experiences that occur in awakened states. Participants described being fully in control of their actions, and were able to feel, think and interact with others in their dreams just as they would if the physical body were awake. Some described re-enacting work that they do in their daily lives, while others undertook spiritual tests where they had to physically engage with and often defy metaphysical and other non-human entities. As described by Te Aka (Male, 31) below, understanding sleep as a forum for developing and applying knowledge and skills (both practical and spiritual), allowed him to develop and gain control over his dream narratives, which was directly relevant for his waking life:

When I first [began exploring understandings of] waerea, a type of karakia, one of its purposes is to clear, to clear whare [house or building], to clear whatever you wanna clear, of any kind of negative things you don't want there. So as soon as I started researching it, I had all these dreams quite regularly. I was having these dreams where I'd go to a place and there'd be some entity there, like a ghost. Heaps of them would show up and I was like 'We gotta clear this whare' and I go in and do karakia. Often the entity would challenge me quite directly, sometimes really aggressively, and it was kind of like a fight with my karakia against this entity. Originally it was quite heavy. I wake up in the middle of it and feel a bit uneasy, and often it'll be hard to go back to sleep. Then it got to a point where, it was like within the dreams I gained confidence. Once that happened, the intensity of their challenge wasn't as strong ... And then once I handed in my master's it stopped. At the same time, I was also moving into a role within my own whānau of being the person that does the karakia and things like takahi whare [a process of clearing the home of a deceased person to send their spirit onward to the spiritual realm]. I definitely see it as like a testing ground. (Te Aka)

Te Aka's account illustrates the perceived function of dream content and activity. Here, the development of skills related to *takahi whare* – an important cultural practice with direct benefits for the collective. Again, rather than pathologising such experiences (e.g. by considering as nightmares), participants described these occurrences as having direct relevance to waking life and were often considered a form of preparatory training – an opportunity to rehearse actions, refine techniques, and master emotional states.

The symbolism and importance of dreams for representing or mirroring challenges faced in waking life was also mentioned by Te Weu (Female, 47), whose family has amassed knowledge over time (gained through first-hand experience) regarding the meanings and interpretations of wairua-based dream content. Essentially, the symbolic value of her dream content was not confined to or unique to her, but had shared meaning for her wider social group:

When we dream about the spider, that's never a good thing. I'm not saying for everybody, but this is for our whānau. I've had a dream where I've been fighting with the spider, and typically, I'd be afraid of it, but I wasn't in my dream. And it tried to attack me, and I grabbed it and I threw it on the ground. I was telling my uncle this and I go 'So what's the meaning of that Uncle?' He goes 'raruraru [troubles] in the whānau niece, raruraru. Yeah, but you're standing your ground'. (Te Weu)

Te Kune (Female, 24) also interpreted a frightening sleep experience as one with spiritual origins, and one that had significant value for her life, particularly as this was her first spiritual experience and central to her growing spiritual awareness. Prior to this experience, she was predominantly connected with her Pākehā and Cook Islands whakapapa. This experience encouraged her to connect with her Māori whakapapa, enabling her to apply a spiritual framework grounded in te ao Māori understandings. This then offered a valuable coping tool and psychological resource for accepting and managing her experience.

So I went to sleep and I thought I woke up, and I could hear a man talking, a really deep voice talking and I thought 'oh that's just my dad in the garage' cause the garage is right behind me. And then as I started listening more, I realised this man's not speaking English. So I started freaking out a bit and then I realised that I couldn't move in my bed. Like something was pushing me down like a weight. And I looked up and there was this blue, sheer, translucent face looking down at me and I started saying 'get the hell off me, someone help'. I remember that I tried to turn on my light. That didn't turn on. I got up, I was walking out my room, but I still had this really dead weight on me, pulling me back. So, I was slowly walking through the hallway, trying to turn on the light in there, it did not turn on. I went into my parent's room. I could see them in the bed and I was looking down at them. And then I was like 'help, please help me, someone help', and they weren't responding. So, in that moment I was like – ok this is different cause if you call for help from your parents, they're gonna come for you. And since they're not coming for me, this is a different experience. So, I remember I just started praying, asking anyone for help, get me out of here and as soon as I did that I woke back up. I thought that looking back that it's kind of ironic that before I never had a spiritual experience. It did help me do my [university] assignment better and look at it in a different way. When I take control of my dreams I do think it helps me get a little more strength. Even though I feel that sometimes when I take control they still don't listen, whoever I'm dealing with they'll still push back but eventually you kinda win, you kinda push them over. (Te Kune)

In the above example, Te Kune described an experience that shares similar phenomenology to sleep paralysis. However, she interprets her experience using culture-specific

rather than medical explanations. This enabled her to utilise the experience to develop strength and resilience in other areas of her life.

Tau/Attaining a state of stability, peace and purpose

This theme encapsulates the outcomes that participants attained from their sleep-related spiritual experiences. While many of their experiences were described as confronting, intense, and sometimes distressing, many participants also described positive outcomes. For example, enabling them to attain a sense of purpose, or to push aside fears that might be preventing them from moving forward both mentally and emotionally. Others felt that their experiences were healing – physically, emotionally, and spiritually – providing them with the sense of peace and hope they needed during challenging times. For example, Te Pū (Female, 63) viewed her experience of connecting with her ancestors during a period of wakefulness at night – an experience that confirmed her own prediction of her son's terminal illness – as a sign of preparation and support as he transitioned from the taha kikokiko to the taha wairua:

I connected that experience with what they were preparing me for. But in a way it was a good sign, because they were going to take care of him. Don't worry about it when it does happen. Not to be scared ... All the time when he was sick, I knew they were there for him. Before he died, he said he was ready to go, he knew. They had come to get him, and they were saying 'let go now'. (Te Pū)

Similarly, Te Kune (Female, 24), who spoke of continually receiving guidance from her deceased grandmother through her dream-like experiences during sleep, described the psychotherapeutic value of this connection.

I think it definitely brings a bit more purpose into life. I've had these experiences, I got to see my nana even if it was only for a couple of seconds. I have an understanding that it's not a complete end when you go. And it's just nice knowing that the connection is still there, regardless of what's happened. And I think that has kept me going through so much things. (Te Kune)

Te Aka (Male, 31) also described the affective quality of his vivid dream states and the enriching feelings of peace and tranquillity that accompanied them.

I have these dreams where I'm on the river, by it, walking alongside of it. And it's like the serenity, the feeling of peace, serenity, that connection I feel with it. It's like it's just emanating this beautiful kind of warmth and wairua of its own, that I just feel so at peace. I often have those dreams with rivers, where it's a serenity and like a sense of peace and calm that I've never experienced awake. But in the dream, it's so vivid and feels lovely. (Te Aka)

Together these accounts indicate the value placed on periods of wakefulness after sleep onset and dreaming for facilitating connection with ancestors and receiving important messages and comfort for themselves or those close to them, tempering the feelings of distress they reported during the day.

Discussion

Broader explanatory models are increasingly recognised as important for understanding experiences linked to health and wellbeing beyond the biological models typically

privileged by WEIRD scientific approaches (Taitimu et al. 2018). The present findings contribute to such models through a framework encapsulating the interpretations of sleep-related experiences from an Indigenous Māori perspective. This includes rich descriptions of sleep-related phenomena, including communication from ancestors and deceased family members, experiences akin to out of body experiences, lucid dreaming, and precognitive or prophetic dreaming. Such experiences challenge dominant notions of materialist reductionism, which, in accordance with WEIRD epistemic frameworks, do not consider these experiences as ‘objectively real’. The present findings highlight the importance of nudging the narrative about such experiences, validating, and normalising them as opportunities for self-growth, especially given that participants interpreted their experiences as purposeful, meaningful, and contributing positively to their waking lives. The application of a spiritual lens or explanatory framework also allows for experiences, often deemed as destabilising from clinical psychiatric and psychological perspectives, to be reframed in a positive or comprehensible manner and act as catalysts for personal transformation (Kohls and Walach 2006; Valentine 2016; Lindsay et al. 2022).

Some of the experiences reported here resonated with how ‘sleep paralysis’ is described in previous literature (Adler 2011; Wróbel-Knybel et al. 2018). Although widely perceived as a spiritual experience (Hufford 2005), sleep paralysis has also been associated with physiological conditions representative of pathology and therefore are also described using relatively medicalised approaches to understanding and treatment, omitting the spiritual realm (Adler 2011; Sharpless 2016). By contrast, cultural-specific models, such as that presented here, highlight the ability to utilise such experiences to develop strength and resilience.

Spiritual significance was also placed on dreaming. A sense of self-awareness, hyper-reality, and the ability to manipulate personal actions within dream states, including nightmares, was described by our participants with resemblance to ‘lucid dreaming’ (Kahan and LaBerge 1994; Voss et al. 2009). Although less commonly reported in WEIRD cultures, this practice is more frequently acknowledged by many Indigenous peoples throughout the world (Santos-Granero 2003; Brown 2016). According to Mota-Rolim et al. (2020), within Indigenous cultures lucid dreaming generally has a pragmatic focus and is concerned with responding to personal and communal challenges. The accounts from the present study support this notion and contrast with predominant medical models of dreaming, which tend to conceptualise dreams and their contents in terms of their neurobiological correlates with various brain states, sleep stages and cognitive functioning (Hobson et al. 2000; Mutz and Javadi 2017).

The themes of interconnection between waking physical dimensions (*kikokiko*) and sleeping spiritual dimensions (*wairua*) presented here reflects the way in which reality is understood within *Mātauranga Māori* – knowledge that is shared by a number of other Indigenous cultures (Williams 2013). Reality is known as multidimensional and relational, comprised of the material and non-material, with the past, present, and future seen as overlapping and intertwined (Whiteford and Barns 2002; Williams 2013; Rameka 2016). Night (*Te Pō*) and day (*Te Ao Mārama*) are also more than just times in which you are awake and asleep. For participants, the night was the time in which their *taha wairua* became active, supporting the ancestral knowledge that regards *Te Pō* as the time in which *Te Ao Wairua*, the *wairua* dimension, was

easiest to access. This knowledge meant that particular wairua-based experiences, such as rituals and teachings related to the Whare Wānanga (the highest school of learning), were predominantly conducted at night (Robust 2006). These interpretations of sleep can be juxtaposed against contemporary scientific and socio-political narratives where waking is presented as the superior state, reflective of actual 'reality' where productive activities can take place (Williams and Boden 2004; Williams 2005). Contrastingly, sleep is deemed as more of an auxiliary state and dream experiences as 'illusionary', with little direct relevance or use to waking life (Bulkeley 2008; Mota-Rolim et al. 2020).

Frameworks such as presented here provide an opportunity to understand sleep and reality through an alternative lens, reminding researchers and clinicians of the broader sociocultural constructions, meanings, and values of the definitions and functions of sleep. While objective neurobiological and medical understandings of sleep offer unique insights in their own right, it is acknowledged that sleep is complex, multifaceted and requires multidimensional approaches to better understand its role, including sleep practices and perceptions of sleep problems (Buysse 2014; Crestani et al. 2022). Indigenous understandings complement WEIRD and scientific data by offering valuable insights into sleep-related phenomenology, the structure of consciousness, and the mastery of mental states beyond waking consciousness. Because Indigenous peoples typically view sleep states as equally important as waking states, centuries of phenomenological data and experimentation already exist, which likely have benefit for scientific researchers today (Mota-Rolim et al. 2020). For example, in their research among Indigenous Australians, Musharbash (2013) identified that sleep-related practices were considered to influence dreaming experiences and connection to the spiritual realm. However, the spiritual relevance of sleep identified by Musharbash (2013) focused predominantly on the way in which individual's sleep, such as the place of sleep and the way in which the individual positioned their body while sleeping.

The present research builds on that of Musharbash (2013), and is the first study to directly represent Māori experiences of sleep and wairua. These findings support previous assertions regarding possible differences in perceptions and interpretations of sleep 'problems' between older Māori and non-Māori (Gibson et al. 2016; Crestani et al. 2022). Essentially, sleep experiences that may be framed as problematic – such as lack of sleep, night or early morning awakenings, sleep paralysis, and nightmares – likely have a cultural or spiritual genealogy that could be engaged with to positively impact the individual's wellbeing and life journey. This contradicts medicalised notions of appropriate sleep practices and goals, such as attaining specific hours of sleep to achieve optimal functioning (Hirshkowitz et al. 2015; Irish et al. 2015). When this messaging is consistently conveyed as the ideal, the social and cultural constructions of sleep receive less attention. For Indigenous groups, such as Māori, wellbeing is not synonymous with physical health. Spiritual wellbeing, such as the ability and opportunity to communicate with ancestors, plays an equally, if not more important role (Durie 1985; Marsden 2003; NiaNia et al. 2017a; Moeke-Maxwell et al. 2020a). It is therefore pertinent to exercise caution when considering and disseminating narratives about the detrimental impacts of disrupted sleep. A more nuanced and inclusive approach is required.

Implications

Overall, these findings speak to the importance of acknowledging, within both the clinical and research space, the existence of explanatory frameworks beyond what has been theorised by predominantly WEIRD science, particularly within contexts of diversity like Aotearoa New Zealand. Current statistics continue to highlight the existence of health differences and disparities between Māori and non-Māori (Gibson et al. 2020; Muller et al. 2020; Ladyman et al. 2021; Signal et al. 2022), and sleep inequities among racial/ethnic minorities in general (Grandner et al. 2016; Hale et al. 2020). However, it is possible such statistics may also reflect a system that privileges a scientific explanatory framework that overtly omits Indigenous understandings and notions of the spiritual, resulting in the disordering of what may be considered a normal experience. Incorporating spiritual frameworks (such as that constructed here) into research may generate an invested response by Māori, as the research will work towards reflecting their own understanding and views of the world. Within the clinical space, the incorporation of a considered and Indigenously informed spiritual explanatory framework could ensure a safe space for Māori to share their stories and experiences, as the current context often prevents Māori from being fully open with health professionals for fear of being judged ‘mentally unstable’ (NiaNia et al. 2017a; George et al. 2020; Lindsay et al. 2022).

Limitations

It is important to acknowledge that the present findings are based on a small convenience sample who had specific experiences relating to wairua and sleep. While useful for providing a window into the phenomenon, as with all qualitative research – these results cannot be generalised and may not be applicable to the wider population of Māori. However, the spiritual explanatory framework for sleep-related experiences that was developed here compliments other frameworks concerning Māori health and wellbeing, such as Mason Durie’s Te Whare Tapa Whā, which analogises the health of the individual to a house with four walls, each of which represent a vital dimension of wellbeing, including the Taha Wairua; the Taha Hinengaro (the psychological and emotional dimension); the Taha Tinana (the physical dimension); and the Taha Whānau (the familial/social dimension) (Durie 2004; Rochford 2004). Historically and contemporarily affected by systemic colonisation, Māori inhabit diverse realities, existing on a spectrum ranging from those with an upbringing immersed within te ao Māori to those who have lived more within te ao Pākehā, and the various intersectional identities that result (Durie 1995; Lindsay et al. 2022), which likely affect individual interpretations of sleep-related phenomena.

A higher number of female participants comprised the present sample. This was not unexpected, as females are reportedly more likely to agree to participate in research (Dickinson et al. 2012), however, it is possible those with other gender identities may respond differently to such research. The majority of the sample also had a tertiary qualification, which may have influenced their ability to articulate their experiences, as well as prior knowledge and understanding of medicalised notions of sleep. However, considering that Māori privilege oral modes of knowledge transfer, with storytelling remaining a vital method for sharing knowledge (Williams et al. 2015), the level of articulation by

participants may also be due to these oral foundations. Regardless of these potential limitations, the present findings broaden understandings of sleep from Indigenous Māori perspectives and support current literature regarding understandings of wairua as a vital dimension of Māori lived reality.

Conclusion

Emergencies associated with health, society and environment repeatedly demonstrate the need to consider more diverse knowledge bases. The acknowledgement and incorporation of spiritual explanatory frameworks such as developed here is necessary for navigating and flourishing within the spiritual and physical dimensions of lived reality. Reality was understood by our participants as being comprised of both the taha wairua and the taha kikokiko, whereby humans are spiritual beings experiencing a human existence. Sleep was described as more than a state for the rejuvenation of the body and mind – but also a state where the spiritual side awakens and becomes active, gaining vital experience and information to assist the physical side in its awakened state. We propose therefore, that rather than focusing on diagnosing sleep disorders or sleep problems alone, communications require some re-framing to include spiritual explanations to inform clinical, social, and academic perspectives of sleep – providing a safe space for diverse worldviews to be acknowledged. In doing so, a more holistic approach could also be adopted to improve wellbeing and perhaps attain a level of personal transformation, enabling greater resilience and purpose in life.

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References

- Adler SR. 2011. Sleep paralysis: night-mares, nocebos, and the mind-body connection. Piskataway (NJ): Rutgers University Press.
- Aina OF, Famuyiwa OO. 2007. Ogun Oru: a traditional explanation for nocturnal neuropsychiatric disturbances among the Yoruba of Southwest Nigeria. *Transcult Psychiatry*. 44(1):44–54. doi:10.1177/1363461507074968.
- Airhihenbuwa CO, Iwelunmor JI, Ezepue CJ, Williams NJ, Jean-Louis G. 2016. I sleep, because we sleep: a synthesis on the role of culture in sleep behavior research. *Sleep Medicine*. 18:67–73. doi:10.1016/j.sleep.2015.07.020.

- Best E. 1900. Spiritual concepts of the Maori. Part I. *The Journal of the Polynesian Society*. 9(4 (36)):173–199.
- Brown DJ. 2016. *Dreaming wide awake: lucid dreaming, shamanic healing, and psychedelics*. Rochester: Simon and Schuster.
- Bulkeley K. 2008. *Dreaming in the world's religions: a comparative history*. [place unknown]: New York University Press; [accessed 2022 Oct 28]. doi:10.18574/nyu/9780814789957.001.0001.
- Buysse DJ. 2014. Sleep health: can we define it? Does it matter? *Sleep*. 37(1):9–17. doi:10.5665/sleep.3298.
- Cassaniti JL, Luhrmann TM. 2014. The cultural kindling of spiritual experiences. *Current Anthropology*. 55(S10):S333–S343. doi:10.1086/677881.
- Crestani F, Williams G, Breheny M, Tupara H, Cunningham C, Gander P, Gibson R. 2022. Sleep health in later life: interviews exploring experiences, attitudes and behaviours of older people. *Ageing and Society*. 44(3):681–703. doi:10.1017/S0144686X22000447.
- Dickinson ER, Adelson JL, Owen J. 2012. Gender balance, representativeness, and statistical power in sexuality research using undergraduate student samples. *Archives of Sexual Behavior*. 41(2):325–327. doi:10.1007/s10508-011-9887-1.
- Durie M. 1985. A Māori perspective of health. *Social Science & Medicine*. 20(5):483–486. doi:10.1016/0277-9536(85)90363-6.
- Durie M. 1995. Ngā matatini: diverse Māori realities [Internet]. Wellington: Ministry of Health; [accessed 2020 Nov 9]. [https://www.moh.govt.nz/notebook/nbbooks.nsf/0/5C2460657783B86A4C2565D700185D75/\\$file/Nga%20matatini.pdf](https://www.moh.govt.nz/notebook/nbbooks.nsf/0/5C2460657783B86A4C2565D700185D75/$file/Nga%20matatini.pdf).
- Durie M. 2004. An Indigenous model of health promotion. *Health Promotion Journal of Australia*. 15(3):181–185. doi:10.1071/HE04181.
- Elder H. 2017. Te Waka Kuaka and Te Waka Oranga. Working with Whānau to improve outcomes. *Australian and New Zealand Journal of Family Therapy*. 38(1):27–42. doi:10.1002/anzf.1206.
- Fink JW, Paine S-J, Gander PH, Harris RB, Purdie G. 2011. Changing response rates from Māori and non-Māori in national sleep health surveys. 124(1328):12.
- Fukuda K, Miyasita A, Inugami M, Ishihara K. 1987. High prevalence of isolated sleep paralysis: Kanashibari phenomenon in Japan. *Sleep*. 10(3):279–286. doi:10.1093/sleep/10.3.279.
- George M, Theodore R, Richards R, Galland B, Taylor R, Matahaere M, Te Morenga L. 2020. Moe Kitenga: a qualitative study of perceptions of infant and child sleep practices among Māori whānau. *AlterNative: An International Journal of Indigenous Peoples*. 16(2):153–160. doi:10.1177/1177180120929694.
- Gibson R, Gander P, Kepa M, Moyes S, Kerse N. 2020. Self-reported sleep problems and their relationship to life and living of Māori and non-Māori in advanced age. *Sleep Health*. 6(4):522–528. doi:10.1016/j.sleh.2019.11.002.
- Gibson R, Gander P, Paine S-J, Kepa M, Moyes S, Kerse N. 2016. Sleep of Māori and non-Māori of advanced age. *The New Zealand Medical Journal*. 129(1436):52–61.
- Glaskin K. 2011. Dreams, memory, and the ancestors: creativity, culture, and the science of sleep: dreams, memory, and the ancestors. *Journal of the Royal Anthropological Institute*. 17(1):44–62. doi:10.1111/j.1467-9655.2010.01668.x.
- Graham J. 2009. Nā Rangi tāua, nā Tūānuku e takoto nei: Research methodology framed by whakapapa; p. 9.
- Grandner MA. 2017. Sleep, health, and society. *Sleep Medicine Clinics*. 12(1):1–22. doi:10.1016/j.jsmc.2016.10.012.
- Grandner MA, Williams NJ, Knutson KL, Roberts D, Jean-Louis G. 2016. Sleep disparity, race/ethnicity, and socioeconomic position. *Sleep Medicine*. 18:7–18. doi:10.1016/j.sleep.2015.01.020.
- Hale L, Troxel W, Buysse DJ. 2020. Sleep health: an opportunity for public health to address health equity. *Annual Review of Public Health*. 41(1):81–99. doi:10.1146/annurev-publhealth-040119-094412.
- Henare M. 2001. Tapu, mana, mauri, hau, wairua: a Māori philosophy of vitalism and cosmos. In: Grim John A, editor. *Indigenous traditions and ecology*. Cambridge, MA: Harvard Press of the Centre for the Study of World Religions; p. 77–98.

- Henrich J, Heine SJ, Norenzayan A. 2010. The weirdest people in the world? *Behavioral and Brain Sciences*. 33(2–3):61–83. doi:10.1017/S0140525X0999152X.
- Hikuroa D. 2017. Mātauranga Māori—the ūkaipō of knowledge in New Zealand. *Journal of the Royal Society of New Zealand*. 47(1):5–10. doi:10.1080/03036758.2016.1252407.
- Hirshkowitz M, Whiton K, Albert SM, Alessi C, Bruni O, DonCarlos L, Hazen N, Herman J, Katz ES, Kheirandish-Gozal L, et al. 2015. National Sleep Foundation’s sleep time duration recommendations: methodology and results summary. *Sleep Health*. 1(1):40–43. doi:10.1016/j.sleh.2014.12.010.
- Hobson JA, Pace-Schott EF, Stickgold R. 2000. Dreaming and the brain: toward a cognitive neuroscience of conscious states. *Behavioral and Brain Sciences*. 23(6):793–842. doi:10.1017/S0140525X00003976.
- Hufford DJ. 2005. Sleep paralysis as spiritual experience. *Transcultural Psychiatry*. 42(1):11–45. doi:10.1177/1363461505050709.
- Irish LA, Kline CE, Gunn HE, Buysse DJ, Hall MH. 2015. The role of sleep hygiene in promoting public health: a review of empirical evidence. *Sleep Medicine Reviews*. 22:23–36. doi:10.1016/j.smrv.2014.10.001.
- Jalal B, Hinton DE. 2013. Rates and characteristics of sleep paralysis in the general population of Denmark and Egypt. *Culture, Medicine, and Psychiatry*. 37(3):534–548. doi:10.1007/s11013-013-9327-x.
- Kahan TL, LaBerge S. 1994. Lucid dreaming as metacognition: implications for cognitive science. *Consciousness and Cognition*. 3(2):246–264. doi:10.1006/ccog.1994.1014.
- Kohls N, Walach H. 2006. Exceptional experiences and spiritual practice: a new measurement approach. *Spirituality and Health International*. 7(3):125–150. doi:10.1002/shi.296.
- Ladyman C, Signal TL, Sweeney B, Jefferies M, Gander P, Paine S-J, Huthwaite M. 2021. Multiple dimensions of sleep are consistently associated with chronically elevated depressive symptoms from late pregnancy to 3 years postnatal in Indigenous and non-Indigenous New Zealand women. *Australian & New Zealand Journal of Psychiatry*. 55(7):687–698. doi:10.1177/0004867420972762.
- Law S, Kirmayer LJ. 2005. Inuit interpretations of sleep paralysis. *Transcultural Psychiatry*. 42(1):93–112. doi:10.1177/1363461505050712.
- Lee JBJ. 2008. *Ako: Pūrākau of Māori teachers’ work in secondary schools* [Doctor in Education]. Auckland, New Zealand: The University of Auckland.
- Lindsay N, Haami D, Tassell-Matamua N, Pomare P, Valentine H, Pahina J, Ware F, Pidduck P. 2022. The spiritual experiences of contemporary Māori in Aotearoa New Zealand: a qualitative analysis. *Journal of Spirituality in Mental Health*. 24(1):74–94. doi:10.1080/19349637.2020.1825152.
- Lindsay N, Tassell-Matamua N, Haami D, Ware F, Valentine H, Pomare P. 2021. Construction of a ‘beliefs about exceptional experiences scale’ (BEES): implications of preliminary findings in Aotearoa New Zealand. *Journal for the Study of Spirituality*. 11(2):145–158. doi:10.1080/20440243.2021.1978136.
- Mahuika N. 2019. A brief history of whakapapa: Māori approaches to genealogy. *Genealogy*. 3(2):32. doi:10.3390/genealogy3020032.
- Marsden M. 2003. *The woven universe: selected writings of Rev. Māori Marsden*. Royal TAC, editor. Otaki, New Zealand: Estate of Rev. Māori Marsden.
- Meadows R. 2005. The ‘negotiated night’: an embodied conceptual framework for the sociological study of sleep. *The Sociological Review*. 53(2):240–254. doi:10.1111/j.1467-954X.2005.00512.x.
- Mihaere KM, Harris R, Gander PH, Reid PM, Purdie G, Robson B, Neill A. 2009. Obstructive sleep apnea in New Zealand adults: prevalence and risk factors among Māori and non-Māori. *Sleep*. 32(7):949–956. doi:10.1093/sleep/32.7.949.
- Mildon C. 2016. An Indigenous approach to Māori healing with Papatūānuku. *Ata: Journal of Psychotherapy Aotearoa New Zealand*. 20(1):11–17. doi:10.9791/ajpanz.2016.02.
- Moeke-Maxwell T, Collier A, Wiles J, Williams L, Black S, Gott M. 2020a. Bereaved families’ perspectives of end-of-life care. Towards a bicultural Whare Tapa Whā older person’s palliative care model. *Journal of Cross-Cultural Gerontology*. 35(2):177–193. doi:10.1007/s10823-020-09397-6.

- Moeke-Maxwell T, Mason K, Gott M. 2020b. New Zealand's indigenous end-of-life care customs: a qualitative study on Māori, by Māori, for Māori, with Māori. In: McLaughlin H, Beresford P, Cameron C, Casey H, Duffy J, editors. *The Routledge handbook of service user involvement in human services research and education*. [place unknown]: Routledge; p. 347–358.
- Moewaka Barnes H. 2008. *Arguing for the spirit in the language of the mind: a Māori practitioner's view of research and science* [Doctor of Philosophy]. [place unknown]: Massey University.
- Mota-Rolim SA, Bulkeley K, Campanelli S, Lobão-Soares B, de Araujo DB, Ribeiro S. 2020. The dream of god: how do religion and science see lucid dreaming and other conscious states during sleep? *Frontiers in Psychology*. 11:1–9. doi:10.3389/fpsyg.2020.555731.
- Muller D, Paine S-J, Wu LJ, Signal TL. 2020. Sleep timing and sleep problems of preschoolers in Aotearoa/New Zealand: relationships with ethnicity and socioeconomic position. *Sleep Medicine*. 76:1–9. doi:10.1016/j.sleep.2020.09.020.
- Musharbash Y. 2013. Night, sight, and feeling safe: an exploration of aspects of Warlpiri and Western sleep. *The Australian Journal of Anthropology*. 24(1):48–63. doi:10.1111/taja.12021.
- Mutz J, Javadi A-H. 2017. Exploring the neural correlates of dream phenomenology and altered states of consciousness during sleep. *Neuroscience of Consciousness*. 2017(1):nix009. doi:10.1093/nc/nix009.
- Ngata RS. 2014. *Understanding matakite: a Kaupapa Māori study on the impact of matakite/intuitive experiences on wellbeing* [Doctor of Philosophy in Māori Studies]. Palmerston North, New Zealand: Massey University.
- NiaNia W, Bush A, Epston D. 2017a. *Collaborative and indigenous mental health therapy: Tātaihono, stories of Māori healing and psychiatry*. New York: Routledge, Taylor & Francis Group.
- NiaNia W, Mana, Rangī, Bush A, Epston D. 2017b. Restoring Mana and taking care of Wairua: a story of Māori Whānau healing. *Australian and New Zealand Journal of Family Therapy*. 38(1):72–97. doi:10.1002/anzf.1205.
- Olson CS. 1993. *Hauora: a socio-cultural perspective* [Masters of Arts]. [place unknown]: Massey University.
- Paine S-J, Gander PH. 2016. Explaining ethnic inequities in sleep duration: a cross-sectional survey of Māori and non-Māori adults in New Zealand. *Sleep Health*. 2(2):109–115. doi:10.1016/j.sleh.2016.01.005.
- Paine S-J, Gander PH, Harris RB, Reid P. 2005. Prevalence and consequences of insomnia in New Zealand: disparities between Maori and non-Maori. *Australian and New Zealand Journal of Public Health*. 29(1):22–28. doi:10.1111/j.1467-842X.2005.tb00743.x.
- Paine S-J, Harris R, Cormack D, Stanley J. 2016. Racial discrimination and ethnic disparities in sleep disturbance: the 2002/03 New Zealand health survey. *Sleep*. 39(2):477–485. doi:10.5665/sleep.5468.
- Palagini L, Rosenlicht N. 2011. Sleep, dreaming, and mental health: a review of historical and neurobiological perspectives. *Sleep Medicine Reviews*. 15(3):179–186. doi:10.1016/j.smrv.2010.07.003.
- Pere RR. 1982. *Ako: concepts and learning in the Māori tradition*. [place unknown].
- Powell AJ. 2018. Mind and spirit: hypnagogia and religious experience. *The Lancet Psychiatry*. 5(6):473–475. doi:10.1016/S2215-0366(18)30138-X.
- Rameka L. 2016. Kia whakatōmuri te haere whakamua: 'I walk backwards into the future with my eyes fixed on my past'. *Contemporary Issues in Early Childhood*. 17(4):387–398. doi:10.1177/1463949116677923.
- Ripikoi P. 2015. *Wairua and wellbeing: exploratory perspectives from Wahine Maori* [Master of Science in Psychology]. Auckland, New Zealand: Massey University.
- Robust TT. 2006. *Te kaitārei ara tāngata whenua mo te Whare Wānanga: "Ēhara, he hara ranei?"*. [Doctor of Education in Māori Education]. Auckland: The University of Auckland.
- Rochford T. 2004. *Whare Tapa Whā: a Māori model of a unified theory of health*. *The Journal of Primary Prevention*. 25(1):41–57. doi:10.1023/B:JOPP.0000039938.39574.9e.
- Santos-Granero F. 2003. Pedro Casanto's nightmares: lucid dreaming in Amazonia and the new age movement; p. 33.

- Sharpless B. 2016. A clinician's guide to recurrent isolated sleep paralysis. *NDT*. 12:1761–1767. doi:10.2147/NDT.S100307.
- Siegel JM. 2003. Why we sleep. *Scientific American*. 289(5):92–97. doi:10.1038/scientificamerican1103-92.
- Signal TL, Sweeney BM, Muller DP, Ladyman CI, Wu L, Paine S-J. 2022. Moe ura: a longitudinal study of mother and child sleep and well-being in Aotearoa New Zealand. *Journal of the Royal Society of New Zealand*. 52(3):283–300. doi:10.1080/03036758.2022.2051569.
- Smith LT. 2015. Kaupapa Māori research - some Kaupapa Māori principles. In: Pihama L, South K, editors. *Kaupapa Rangahau a reader: a collection of readings from the Kaupapa Maori Research Workshop Series Led*. [place unknown]: Te Kotahi Research Institute; p. 46–52.
- Steger B, Brunt L. 2003. Into the night and the world of sleep. In Steger B, Brunt L (Eds), *Night-time and sleep in Asia and the West: exploring the dark side of life (1–23)*. London & New York: Routledge Curzon.
- Taitimu M, Read J, McIntosh T. 2018. Ngā Whakāwhitinga (standing at the crossroads): how Māori understand what Western psychiatry calls “schizophrenia.”. *Transcultural Psychiatry*. 55(2):153–177. doi:10.1177/1363461518757800.
- Valentine H. 2009. *Kia Ngāwari ki te Awatea: the relationship between Wairua and Māori well-being: a psychological perspective [Doctor of Clinical Psychology]*. Palmerston North, New Zealand: Massey University.
- Valentine H. 2016. Wairuatanga. In: Waitoki W, Levy MP, editors. *Te manu kai i te mātauranga: Indigenous psychology in Aotearoa/New Zealand*. 1st ed. Wellington, New Zealand: The New Zealand Psychological Society; p. 155–170.
- Voss U, Holzmann R, Tuin I, Hobson AJ. 2009. Lucid dreaming: a state of consciousness with features of both waking and non-lucid dreaming. *Sleep*. 32(9):1191–1200. doi:10.1093/sleep/32.9.1191.
- Ware F, Breheny M, Forster M. 2018. Kaupapa Kōrero: a Māori cultural approach to narrative inquiry. *AlterNative: An International Journal of Indigenous Peoples*. 14(1):45–53. doi:10.1177/1177180117744810.
- Whiteford G, Barns M. 2002. Te Ao Hurihuri. In: Pentland WE, Harvey AS, Lawton MP, McColl MA, editors. *Time use research in the social sciences*. Boston, MA: Springer US; p. 211–230.
- Williams L. 2013. Deepening ecological relationship through critical inquiry into ontology and epistemology: Te Ao Maori meets sustainable Science Affiliations. [place unknown].
- Williams L, Moeke-Maxwell T, Kothari S, Pearson S, Gott M, Black S, Frey R, Wharemate R, Hansen W. 2015. PA12 is digital storytelling ka pai for New Zealand Māori? Using digital storytelling as a method to explore whānau end of life caregiving experiences: a pilot study. *BMJ Supportive & Palliative Care*. 5(Suppl 1):A23–A23. doi:10.1136/bmjspcare-2015-000906.72.
- Williams S, Boden S. 2004. Consumed with sleep? Dormant bodies in consumer culture. *Sociological Research Online*. 9(2):98–109. doi:10.5153/sro.914.
- Williams SJ. 2002. Sleep and health: sociological reflections on the dormant society. *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*. 6(2):173–200. doi:10.1177/136345930200600203.
- Williams SJ. 2005. *Sleep and society: sociological ventures into the (un)known ...*. London: Routledge.
- Williams SJ, Coveney CM, Gabe J. 2013. Medicalisation or customisation? Sleep, enterprise and enhancement in the 24/7 society. *Social Science & Medicine*. 79:40–47. doi:10.1016/j.socscimed.2012.07.017.
- Williams SJ, Meadows R, Coveney CM. 2021. Desynchronised times? Chronobiology, (bio)medicalisation and the rhythms of life itself. *Sociology of Health & Illness*. 43(6):1501–1517. doi:10.1111/1467-9566.13324.
- Wróbel-Knybel P, Flis M, Dubiel R, Karakuła-Juchnowicz H. 2018. What do we know about sleep paralysis? *Current Problems of Psychiatry*. 19(3):174–184. doi:10.2478/cpp-2018-0014.