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Tarryn Phillips

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The Everyday Politics of Risk: Managing Diabetes in Fiji

Tarryn Phillips

Department of Social Inquiry, La Trobe University, Melbourne, Australia

ABSTRACT

In this article, I investigate how diabetes-related risks are experienced and managed in Fiji. Neoliberal discourses implore patients to be risk-averse and blame poorer Indigenous (iTaukei) people with diabetes for “irresponsible” treatment choices and medication “noncompliance.” Drawing on ethnographic fieldwork conducted during 2015–16, I suggest lower-income iTaukei people with diabetes face multiple layers of risk in everyday life beyond biomedical definitions, including spiritual threats; cultural politics; and limited healthcare access. People with diabetes pragmatically weigh up these risks when choosing whether to seek treatment, be it biomedical, faith-based, pharmaceutical, or herbal remedies. Better understanding how patients experience and manage risk will improve diabetes care.

KEYWORDS

Diabetes; treatment-seeking; medication compliance; Fiji; risk; uncertainty

Two ethnographic moments epitomized the heated politics of diabetes management in Fiji during my fieldwork there in 2015–16. The first took place in an overcrowded and impoverished periurban settlement outside Suva, the capital city. In addition to a recent outbreak of tuberculosis, residents were also suffering from high rates of noncommunicable diseases (NCDs) such as diabetes, cancer, and heart disease. I sat with the zone nurse Myfa, and one of her diabetic patients, a man in his fifties called Isikeli who was iTaukei [indigenous, literally meaning “owner” of the land]. Isikeli’s leg had been amputated a week earlier, and he could not attend the local healthcare center because his family could not afford a wheelchair. Isikeli lamented not having attended the doctor before his leg became infected. During our meeting, two merrily drunk neighbors carrying a carton of beer passed by and briefly entered the tin shack to say hello. When they left, the iTaukei zone nurse asked Isikeli’s daughter if she had been giving him the tablets to manage his insulin levels. His daughter revealed a packet of unopened tablets in a bag full of medication. The nurse pleaded with them to adhere to medication advice: “*Kerekere* [please], this is important.” Myfa expressed frustration to me later as we left Isikeli’s settlement:

How many times have we been going there, especially that problematic area? ... They don’t care about it and they drink as much as they can ... I feel bad. I feel sorry for them. But the other thing is I have done our part for them. Sometimes we are tired of talking again.

The second moment took place in a village on the northeastern island of Ovalau. An Indo-Fijian taxi driver, Vikash, reiterated the belief that iTaukei were brazenly ignoring medical advice:

It’s a big problem now in Fiji especially with our [iTaukei] brothers and sisters. When they get their sickness they don’t follow the doctor’s instructions. [The doctors] say ‘don’t eat certain food, don’t smoke’, but they keep on smoking. But with the [Indo-Fijians], once they know they have diabetes they will completely stop, like myself, I have no sugar. The iTaukei say, ‘oh I will die one day’, that’s the attitude, keep on getting more sugar. That’s the attitude of not listening.

CONTACT Tarryn Phillips  Tarryn.Phillips@latrobe.edu.au  Department of Social Inquiry, La Trobe University, Plenty Rd, Bundoora, Victoria 3086, Australia

Media Teaser: Why do Fijian people with diabetes seemingly take risks by disregarding biomedical advice? They manage multiple risks in everyday life including spiritual, cultural, and socioeconomic factors.

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While Vikash made this comment, his iTaukei friend Aseri sat beside him nodding in fervent agreement.

These ethnographic vignettes illustrate the tensions over diabetes management currently unfolding in Fijian society. A common refrain is that iTaukei with diabetes – especially those of lower socioeconomic status – disregard biomedical advice and take irresponsible risks with their health, unlike their wealthier counterparts and Indo-Fijians generally. This medical assumption dovetails on a longstanding trope in Fijian discourse in which Indo-Fijians are caricatured as hardworking drivers of economic growth, whereas iTaukei are caricatured as lazy, spoiled, and are less likely to be economic contributors (Presterudstuen 2014a). The aim of this article is to investigate how iTaukei with diabetes manage uncertainty in their everyday lives and choose or move between competing discourses about risk. How do notions of danger and responsibility, safety, and the future shift and change according to different socioeconomic, geographic, biomedical, ethnomedical, and spiritual standpoints? How might these different ontologies of risk shape the treatment choices of people with diabetes, be it between biomedical practitioners and faith healing, pharmaceuticals or herbal remedies? Ultimately, better understanding and optimizing how diabetes-related risks are locally experienced, understood, and managed will improve diabetes care.

The demographic of diabetes

Across the world, the burden of *diabetes mellitus* – a chronic condition in which the body cannot regulate insulin properly – reflects and reproduces historically entrenched inequalities.¹ In the right conditions, diabetes can be managed through healthy eating, exercise, medication, and the prevention of complications. Uncontrolled, the disease can lead to disability and/or premature death from complications including heart attack, stroke, kidney failure, vision impairment, and limb amputations (WHO 2016). The prevalence and growth rate of diabetes are especially high in the global south, as are the rates of disability and premature mortality related to the disease (WHO 2016). Furthermore, diabetes and other NCDs do not replace other forms of illness and death still common in poorer contexts, such as tuberculosis, malnutrition, HIV/AIDS and malaria; rather, they add to them, which means low- and middle-income countries face a multiple burden of disease (Glasgow and Schrecker 2015). Indeed, for many low-income communities, diabetes is syndemic with other illnesses such as depression and infection, with the added effect of impeding diabetes care (e.g., Mendenhall et al. 2015).

Multilateral public health agencies frame the problem of diabetes in the language of risk. In addition to genetic and ethnic determinants, modifiable “risk-factors” for the disease are deemed to be overweight, obesity, physical inactivity, unhealthy diet, and smoking (WHO 2016). Some scholars have critiqued the ways in which nutritional science is reified into lifestyle interventions and used uncritically in media panics about “globesity” (Sanabria and Yates-Doerr 2015). The WHO recognizes that the globalized trade of unhealthy products unequally exposes poorer people to lifestyle risks (WHO 2008), and calls for multisectoral responses (WHO 2016). However, macro-economic interventions have proven less popular, difficult to implement, and obstructed by powerful interests (Reubi et al. 2015). Thus, the majority of time and money dedicated to interventions globally has been spent on health promotion campaigns targeted at changing individual lifestyles (Glasgow and Schrecker 2015).

The Pacific Islands region is officially home to the six countries with the highest diabetes prevalence in the world (Tin et al. 2015). In Fiji, over 10% of the adult population is diagnosed with the condition (Morgan 2015), but anecdotal evidence suggests this figure is an underestimate. Healthcare authorities have named diabetes the number one cause of disability, believing it accounts for nearly 1 in 5 disease-specific deaths, most of which are premature (Pablo et al. 2018). Most concerning, doctors are diagnosing an increasing number of children and young people (Ogle et al. 2016).

The Fijian Ministry of Health has attempted substantial intervention, including taxes on sugar, salt, and tobacco; restrictions on junk food advertising; and improved population screening (Snowdon et al. 2013). Yet food and beverage corporations have undermined stricter regulations, and trade agreements continually enable the importation of known obesogenic and carcinogenic products (Gewertz and Errington 2010; Ravuvu et al. 2017). Access to healthier and fresh foods is increasingly limited, while energy-rich, nutrient-poor foods are cheaper and more readily available, in turn shaping people's nutritional preferences (Morgan et al. 2016).

In Suva, health promotion messages regarding NCD prevention abound: television advertisements, radio jingles, roadside billboards, and newspaper articles all implore people to reduce sugar and fat in their diet, “kick the salt,” “quit smoking,” and “invest” in their health through exercise. Further, health promotional material targeted at people with diabetes beseeches them to responsibly manage their condition. A billboard beside the Colonial War Memorial Hospital (CWMH) in Suva displays two bare feet and says: “In Fiji, a person with Diabetes Mellitus loses a foot from untreated infections every 12.5 h. Have you checked your feet and blood pressure today?”

Treatment-seeking trends are difficult to quantify in a society like Fiji's that often deals with illness and death outside of biomedical institutions (Carter et al. 2012). Yet we do know that over 70% of diabetes patients in Fiji have poor glycemic control (Pablo et al. 2018), which may mean their sugar levels have not been adequately monitored, a negative drug interaction, or a dosage issue. Moreover, in one study, 15% of patients had not been diagnosed with the disease before they presented with severe complications, which meant they had either not been screened, or had delayed presenting to a healthcare facility (Kumar et al. 2014).

As Isikeli's story suggests, diabetes prevalence and burden in Fiji are inextricably tied to ethnic divisions. Fiji's population of approximately 900,000 is mostly comprised of iTaukei (57%), and Indo-Fijians (38%) mostly descended from Indian indentured laborers brought by the British colonial administration (and some later economic migrants, Fiji Islands Bureau of Statistics 2010). Although Indo-Fijians were once the ethnic majority, there has been significant outmigration following successive military coups since 1987 and tensions over land rights (Lal 2013). The country's demographic has thus changed radically, and health statistics need to be understood in this light. There is both a truth and a stereotype behind the assumption by the taxi driver, Vikash, that iTaukei approach biomedical advice and services differently to Indo-Fijians. iTaukei with diabetes often delay in presenting to a healthcare facility and are overrepresented in terms of diabetes-related complications. An audit of 938 diabetes-related foot amputations at Suva's Colonial War Memorial hospital (CWMH) during 2010–2012 highlighted this clearly. Although an earlier study had found that more Indo-Fijians were *diagnosed* with diabetes, many more *amputees* were iTaukei (71% vs. 26.2%). Moreover, rates of smoking – which people with diabetes are strongly advised against – were significantly higher amongst iTaukei men (Kumar et al. 2014). This highlights the importance of examining how the uptake of health messages, and the extent to which this translates into treatment-seeking from biomedical services, is deeply embedded in socio-cultural meaning (Trnka 2007).

Socioeconomic status also shapes diabetes care in Fiji. Although the Fijian healthcare system is free, the system is understaffed and underresourced, particularly in regional and remote areas (Phillips and Narayan 2017). Frequent medicine shortages have severe implications for morbidity and premature death (Walker et al. 2017). There is, consequently, a growing gap between those who can afford private healthcare and those who cannot. This becomes particularly stark in the context of unsubsidized, expensive, and life-saving technologies to manage diabetes, such as blood sugar monitors and kidney dialysis. Poverty is endemic in Fiji (approximately 40% lived below the poverty line in 2010, Fiji Islands Bureau of Statistics 2010). While urban poverty is officially declining, a growing and largely undocumented population of informal settlers like Isikeli have migrated from rural to urban areas (Bryant-Tokalau 2012). Many live in informal settlements with limited healthcare access and, in general, with comparatively poor health outcomes (Phillips and Narayan 2017).

Yet Isikeli's bag of unopened medication hints at the ways in which biomedically defined diabetes risk and pharmaceutical technologies have been sidelined or are unattainable. The iTaukei community has a deeply entrenched ethnomedical system which is often engaged in diabetes management. How people make treatment choices in the context of a plurality of healing systems has been well studied by medical anthropologists, and requires a brief overview.

Ethnographic perspectives on treatment-seeking and medical pluralism

The rejection of biomedicine and continued use of healing traditions has at times been an important part of sustaining cultural identity in the face of rapid globalization. For example, spiritual healing rituals have been a collective expression of Njavo Native Americans' identity in contradistinction to broader American society, and individual treatment choices can be an expression of belonging as a Njavo (Csordas 1999). The encroachment of biomedical practice onto local healing traditions can arguably act as another layer of colonization, which in Guatemala has had a detrimental effect on the maintenance of tradition, empowerment, and self-determination, and has arguably had a net negative effect on Guatemalan well-being and health outcomes (Hawkins 2007).

However, it is important not to over-politicize interactions between indigenous and biomedical models by representing them as always "clashing" and "radically different" (Saethre 2007). Among the Walpiri community in the Northern Territory of Australia where there is similarly a diabetes crisis, Walpiri individuals use biomedical and local healing systems concurrently and make treatment choices for each health issue pragmatically, on a case by case basis (Saethre 2007). Pharmaceuticals and ethnomedicines are not always incommensurate, but can be used in complementary ways (Giovannini et al. 2011).

The use of ethnomedical and spiritual traditions in lieu of biomedicine is not always a choice; it may be dependent on socioeconomic status and healthcare access. For people with diabetes in urban poor communities in Tanzania, "noncompliance" with biomedical advice was more to do with unequal healthcare access than with clashing ethnomedical traditions (Kolling et al. 2010). Particularly in places where biomedical services and training have declined, choosing faith healing can be a pragmatic response (Cox and Phillips 2015).

Especially for Indigenous people in postcolonial contexts, treatment-seeking can be politically entangled, culturally embedded, and resource contingent; and individual practices can vary widely in this web. What is missing from this literature is a comparative analysis of how biomedical and indigenous healing systems are used to manage uncertainty, and how and in what circumstances patients choose or move between competing discourses about risk (Alaszewski 2015). This analytical focus on risk, I argue, enables a deeper understanding of the everyday management of diabetes.

Medical uncertainty and risk management

Illness is a profoundly disruptive event that can interrupt the flow of a person's life (Bury 1982). The concept of medical uncertainty invites us to think about the role of the unknown in this illness experience. Medical uncertainty occurs when there is a lack of consensual reality about sickness and healing, whether it be an uncertain prognosis; indecision about if, when, and from whom to seek treatment; or a lack of certainty about which course of action (or inaction) might improve health and wellbeing. This troubling space between the known and the unknown can illuminate moments of fear, indecision, and doubt about the future. Managing medical uncertainty, by extension, relates to human efforts to understand or convert moments of medical uncertainty into more comforting states of order or resolution.²

Different ethnomedical paradigms offer alternative frameworks for managing uncertainty. In the mainstream Western canon, uncertainty is often conceptualized through a rather narrow

paradigm of risk. When uncertainty is reframed as a risk, the future is seemingly rendered calculable through formulas of probability and can be reassuringly managed through preemption, vigilance, and precaution (Ericson and Doyle 2004). This is particularly the case in the neoliberal political climate in which economic growth and quantitative measurement are prioritized. In this context, responsibility for welfare is increasingly placed on the shoulders of individuals, who are in turn expected to refrain from burdening state-funded services (Ayo 2012). Categorizing the future in these narrow terms of risk has refracted how public health institutions conceptualize disease and treat patients: social, environmental, and genetic determinants are analyzed as to whether they “increase probability” of illness, disability, and death; and populations and individuals are discursively plotted along spectrums from “low” to “high risk.” This risk paradigm tends to privilege biomedical knowledge, which in turn emphasizes that which is visibly demonstrated through objective, physical evidence (Foucault 1973). The persistent popularity of complementary and alternative healing systems demonstrates that this biomedical paradigm of risk management is not the only model in late modern societies, but it is certainly the most dominant (Baer 2004). The emphasis on risk has encouraged some to have a more vigilant approach to health, but it has also created a moral discourse, which has heightened the perceived need to identify and govern “at-risk” individuals (Lupton 2006; Rose 1998).

Neoliberal discourse and biomedical interventions both call individuals to action in a way that assumes they are rational economic actors, formally equal and autonomous, with access to the same opportunities to “choose” health (Foley 2008). If ill, people are expected to seek timely biomedical treatment and proactively get better, a moral imperative that is framed in economic terms as a requirement to “invest” in their own health and avoid burdening the economy. Like the health promotional campaigns about diabetes described above, these messages enjoin people to govern themselves as risk-averse, “health-conscious citizens” (Ayo 2012). These health messages may save lives, but they reflect and reinforce a particular discourse about risk; a moral prescription about the correct way to respond to illness, which privileges being preventative and vigilant based on specifically biomedical and pharmaceutical knowledge and technology – and assumes these services will be readily accessed.

Spiritual healing systems, in contrast, constitute alternative paradigms for conceptualizing medical uncertainty, seeking expertise, rendering the future manageable, and offering reassurance (Evans-Pritchard 1937; Malinowski 1948). As Evans-Pritchard demonstrated in his seminal text on witchcraft among the Azande, biomedical science may be able to detect and explain specific causal mechanisms of illness in the body and calculate the probable risk of it happening, but it cannot with absolute certainty explain why a particular misfortune happened to a particular person at a particular time. Spiritual explanatory models for illness such as sorcery or witchcraft – in which another person commits harm through supernatural means – seemingly offer a more comprehensive explanation.

In the Pacific, accusations of sorcery are typically fueled by jealousy, inequality, and gossip, with moral dimensions that sanction social and economic behavior (Taylor 2015). Due to missionization across the Pacific region, traditional spiritual explanations of sorcery have often syncretized with Christian frameworks, although some denominations like Seventh Day Adventist and Pentecostal churches have denounced these as heathen traditions (Taylor 2016). In Fiji, Christianity is central to Indigenous Fijian governance at every level, albeit through multiple denominations and in politically contested ways (Ryle 2012).³ The combination of Christian and spiritual paradigms for understanding and responding to illness promotes the use of faith, prayer, and spiritual healing, which can provide existential forms of comfort and resolution in contrast to the more reductionist biomedical model. For many Samoan evangelical Christians, for example, the uncertainty of experiencing the symptoms of metabolic disorders was not as existentially troubling when they understood it as a manifestation of their relationship with God (Hardin 2016). Christianity can shift the locus of responsibility for managing metabolic disorders from an individually oriented risk, such as “eat differently” and “see the doctor regularly” to a moral choice, such as “treat your body as a temple.” Some of the difficulties Samoan patients experienced when they attempted to change their dietary

behaviors and seek primary healthcare were more manageable when interpreted through a Christian lens (Hardin 2018: 34).

In Fiji, biomedical, ethnomedical, and spiritual modes of managing uncertainty coincide and sometimes compete with each other to explain and mitigate misfortune and suffering. I, therefore, ask how iTaukei understand and respond to diabetes-related risk within this medically pluralistic context, and how this shapes their treatment choices. This analytical focus on risk reveals much about power, agency, and choice in the diabetes crisis.

Research methods and setting

I draw on data from a broader ethnographic study about the governance of NCDs in Fiji between 2015–16. Fieldwork was conducted in two sites. The first phase was in Ovalau, an island northeast of the biggest island Viti Levu, with the assistance of co-researcher and fellow medical anthropologist Celia McMichael. The second phase was in the periurban areas on the mainland between Suva and the nearby town of Nausori, where the author conducted participant observation by accompanying zone nurses on their domicile visits. The two sites allow comparison regarding degrees of geographic isolation from Viti Levu and different layers of socioeconomic disadvantage. While Ovalau is serviced by Levuka Hospital, a health center, and several nursing posts, it is resource-poor, which means severely ill and special needs patients must be transferred to the CWMH in Suva. In periurban settlements, overcrowding leads to different health problems and healthcare services often struggle to meet the needs of the burgeoning population (Phillips and Narayan 2017).

A total of 110 participants contributed to the research. Interviews, focus groups, and participant observation were combined to triangulate patient, health-care provider, policy-maker, and community attitudes and behaviors regarding NCDs and diabetes.

Interviews and FGDs were digitally audio-recorded (with permission) and transcribed verbatim. Interview and focus group data were transcribed, and along with the fieldnotes from participant observation, themes were identified, and codes were developed and sharpened. Themes were continually cross-checked for salience and validity. Pseudonyms for participants – in addition to their gender, ethnicity, and the method of data collection – are provided after quotes.

Several limitations require mention. The sample in this research is not representative: the majority (68%) of participants are iTaukei (76) because Ovalau has a predominantly iTaukei population; by circumstance, the settlements visited in Suva-Nausori were predominantly iTaukei. As a result, I focus on iTaukei medical practices and how they are perceived. The research was, moreover, conducted in English, which – although it is the official language in Fiji – prohibited more in-depth discussion in many participants' first languages.

The prevalence of diabetes is underdiagnosed in the Fijian community (Pablo et al. 2018) and conditions such as high blood pressure and stroke can be diabetes-related complications. Therefore, the local significance attributed to diabetes interweaves with other NCDs.

My entrance to the communities was facilitated by preexisting personal connections, and with the support of the Lomaiviti Provincial Council, Fijian Ministry of Health, sub-divisional medical officer, and zone-nurses. Research permits were granted by the Fijian Immigration Department following the provision of required documentation and letters of support.

Ethics approval was obtained from *La Trobe University Human Research Ethics Committee* and the *Fijian National University Human Research Ethics Committee*. Informed verbal or written consent was obtained from participants.

Managing diabetes risk in Fiji

Unlike the widely held stereotype that iTaukei were ignorant or careless about diabetes-related risks, themes of uncertainty and risk-management were ever present in their discourse (although rarely

named explicitly). I spoke with many iTaukei in the settlements who were profoundly troubled by the uncertainty of diabetes: the way their family and friends were dying of stroke and heart attacks; the scary wait for deadly blood pressure conditions that had slow onset but could be lying latent, asymptomatic; the indecision over whether a symptom required treatment. These patients often knew and could even recite public health messages about diabetes prevention and control (see also Phillips et al. 2018), but two key factors shaped their ambivalence toward the biomedical risk-management approach. Firstly, they were engaging alternative paradigms for managing medical uncertainty, including (interwoven) ethnomedical and Christian healing systems. Secondly, poorer iTaukei patients experienced multiple layers of risk beyond those that were biomedically defined, including spiritual explanations for diabetes and structural, everyday barriers to healthcare access. Even so, people saw biomedical and indigenous healing systems as complementary to some extent and moved pragmatically between the different paradigms, providing them with the most reassurance and resolution. Yet the management of diabetes-related risks was always inherently *political*; it reflected, reproduced, and disrupted asymmetrical power dynamics in people's everyday lives.

Ethnomedical tradition

The biomedical explanatory framework for diabetes management was not the sovereign paradigm in which most iTaukei participants conceptualized sickness and healing. Unlike biomedicine's individualized and localized gaze on the body, iTaukei medical tradition has a holistic worldview that understands health to incorporate body, mind, spirit, ancestral wisdom, and the environment, and the causes and treatment of disease can be related to all of these factors (see Katz 1999; Spencer 1941). Traditional remedies include herbal medicine, massage, tattooing, bone setting, and cupping. In particular, the use of medicinal plants is still used by approximately 80% of the Fijian population, although it is unclear in which ethnic proportion (Nakajima et al. 2014). In Ovalau, for example, the medicinal properties of many plants are common knowledge. Some villages are reputed for particular skills and for having access to particular plants, and some individuals are known to have a deeper knowledge and are thus considered experts. Anecdotally, herbal medicine was less popular in periurban informal settlements in Suva. Presumably because of its deeply place-based nature, medicinal herbal knowledge and practice are diminished through rural–urban migration.

Even though the use of medicinal plants is historically entrenched, its practice is constantly in flux. Throughout fieldwork, herbal treatments were being discovered, mixed, and experimented with. With respect to breast cancer, one herbal *vuniwai* [doctor] explained that he had inherited a cure for the disease from a “guru” on the mainland. This man believed he had cured three women thus far on Ovalau. Another had developed a herbal concoction to cure hair loss after chemotherapy, and when requested, he would send it to the Fijian diaspora living overseas.

There were many varied ways in which community members would selectively use and/or combine traditional remedies and pharmaceuticals to treat diabetes and related conditions. Some only used medicinal plants and refused to take medication:

For me, I don't take pills or medicine from the hospital. I only use my Fijian medicine. Leaves (Samu, male iTaukei focus-group participant).

At the Levuka Hospital, several people with diabetes needed emergency amputations, partly because they had been putting *drau ni weleti* (papaya leaves) on infected legs, and partly due to uncontrolled diabetes caused by structural factors. In one case, the patient had already had one leg amputated, and – as her son explained while he fretted in the waiting room – she was at risk of losing her second that day.

On the other hand, some tried pharmaceuticals first, and would turn to medicinal plants if there was no perceptible benefit from the medication:

You know I've got the cough hey. Very sick. Go to the hospital, Amoxicillin, Panadol. Not working. Then I go take the leaf – *dabi*. Same time I drink, same time no cough. Now everyone come and take some *dabi* (Ili, female iTaukei, focus group participant).

Some iTaukei were reflective about the differences between the risks posed by biomedical and ethnomedical traditions. Medicinal plants rarely have any side-effects, whereas a number of patients were concerned about feeling dizzy or having headaches after taking their medication (about which the healthcare providers were skeptical). Side-effects were often cited as a reason to stop taking medication, especially if the condition for which it was prescribed was asymptomatic (for example, hypertension). Leaves were also perceived to have an immediate reaction, whereas medication prescribed by doctors was felt to take time: “Herbal medicine works quicker than western medicine [...] when they take that, it works quick in their body” (Isimeli, male iTaukei interviewee).

For some, experiential, familial knowledge was deemed to be much more trustworthy than biomedical advice. Faith in herbal medicine was upheld by peoples’ experiences and that of their ancestors, whereas people were skeptical about biomedicine due to its abstract nature, and its overreliance on technology: “Well the lab tests have been proved by machines, eh? [But herbal medicine] has been passed down and been proved by experience. By experience, they experience it, they use it for many generations” (Sitiveni, male iTaukei focus group participant). Others who had sidelined their medication still sought biomedical reassurance. Several used the machine’s (lower) blood pressure reading as proof that the herbs were effective and the medication was redundant.

Fijian herbal treatments were considered to be more flexible, whereas the community were skeptical that doctors diagnose the same drug for many different complaints: “Those doctors[at the hospital], they just do one type of medicine for everything. He [*pointing to the herbal medicine expert*] knows when a medicine doesn’t work, he’ll change that medicine” (Isimeli, male iTaukei focus group participant). (As I discuss below, the accusation that biomedical doctors prescribe the same medication for “everything” – although exaggerated – is somewhat substantiated. Doctors are often forced to adjust their medical advice based on available pharmaceutical stock.)

For many iTaukei, managing diabetes through ethnomedical means produced a particular sense of safety not provided by biomedicine. In Fiji, many iTaukei community members exhibited a profound source of pride and belonging when telling stories of successful treatments using traditional medicine. When famous Fijian rugby player, Waisake Naholo, was announced as out-of-action for 3 months by New Zealand doctors but was cured by traditional iTaukei medicine in time for the rugby World Cup, the story was reported internationally and recalled proudly by participants. As demonstrated by Hawkins (2007), the loss of ethnomedical tradition can present a different kind of threat to indigenous well-being, albeit less tangible and immediate than biomedically defined risks to health. While the political context is different in Guatemala than in Fiji, ethnomedical tradition – in contradistinction to biomedicine – was crucially, inextricably linked to iTaukei identity and thus offered a particular kind of comfort.

Faith-based approaches to uncertainty

The future is often understood in dominant Christian discourse in Fiji using notions of corporeal and spiritual destiny, which produces both a sense of hope and a moral impetus for action (Guinness 2018). Faith played an integral role in medical decision-making amongst both iTaukei and Indo-Fijian Christians. Prayer was considered to be medicinally effective, and *iTala-talas* (preachers) were endowed with healing powers. This shaped how Christians used – or decided not to use – pharmaceuticals prescribed by biomedical practitioners. This comment was typical of Christian medical analysis:

But when they give us the medicine, sometimes before we take it, we don’t know whether it’ll work in us or no, so [we] just pray and thank God for it and ... then we see because we asked the Lord, we taking it with faith it will work in our body (Sandhika, female Indo-Fijian interviewee).

Christian and ethnomedical healing practices reinforced each other. A common narrative was that God blessed the leaves, which justified confidence in traditional medicines. Faith in prayer also rendered people confident that they would get better without medication, which could lead them to abandon their pharmaceutical regime. One woman with hypertension started out in the focus group

discussion by suggesting she was compliant with the doctors' instructions. However, halfway through the meeting when she had begun to trust me, she made an admission:

Melania: I tell the truth. From June until now, I never taking the pill. June until today [in September].

Patient pulls out abandoned blood pressure medication from handbag

Tarryn: And why did you stop?

Melania: I just drank the leaves, then after that ... I pray (Female iTaukei, focus group participant).

Although Melania perceived her destiny as beyond her control, she perceived prayer as proactive management of her high blood pressure. It gave her a sense of reassurance about the future in a way that "pills" did not.

In this way, prayer sometimes led to delayed presentation for life-saving services. One woman from an outer village in Ovalau suffered from a stroke after not having taken blood pressure medication, and prayed with her community for 15 min before calling an ambulance.

Interdenominational differences influenced whether people granted legitimacy to Christian healing or prioritized a biomedical framing of risk. There was contestation over the use of prayer, for example, particularly with the rising prevalence of Pentecostal Christianity. A Catholic priest in Suva expressed his frustration about the overreliance on prayer amongst some of his friends:

The daughter said "[my mother]'s gone back to the village. She's taking traditional medicine ... and the charismatic prayer group is praying over her down there." Well although I'm a priest, I'm suspicious of the charismatic prayer group [laughs]. So I very nastily turned around and said to this girl, "well when she dies, tell your mother to get the charismatic group to bury her!" (Michael, male European interviewee)

Prayer also played a critical role in helping some people cope with the physical and psychological uncertainty of living with diabetes when there was limited structural support. As an example, Ruci was the sole carer of her husband, who had diabetes and became quadriplegic after suffering from stroke. Ruci was a very slight women in her 60s, who struggled to get her heavy, much taller husband in and out of the wheelchair; she was also required to turn him in the bed throughout night and day to avoid bedsores. She shuddered when she explained to me that he cries repeatedly at night, and she felt a spirit in the house. When I asked her about her faith, she looked to the sky with tears streaming down her face and explained that the Lord is her only source of solace, and through Him she maintains some hope that her husband will improve. The Indo-Fijian zone nurse (also with tears in her eyes) proceeded to apologetically advise Ruci that several of the tablets prescribed for her husband were out of stock, but would hopefully be replenished on her next visit.

When Ruci experienced uncertainty about the cause of her husband's illness, the most appropriate mode of treatment, and the possibility of his recovery, she turned to faith as a mode of navigating that experience. By contrast, the biomedical approach to uncertainty is to rely on statistics about the likelihood of recovery and the micro-biological effectiveness of pharmaceutical treatment. For Ruci, the latter approach had not been wholly useful nor always accessible. Faith thus played a central (and default) role in iTaukei responses to diabetes management.

An irony here is that in some respects Ruci was a good neoliberal patient: iTaukei who maximize benefits from prayer in some ways follow neoliberal expectations because they are entrepreneurially minimizing their economic cost to the state-funded healthcare system. Yet prayer is used instead of available medication. When it resulted in delayed presentation, complications, and burdensome medical procedures, patients are perceived as irresponsible. This perception was epitomized by this healthcare provider: "Sometimes I just ask them straight, if I give you the medication from the hospital will you take them or just put them on the shelf? ... because it's a resource limited hospital" (Etuate, male iTaukei doctor, interviewee).

Spiritual risk

The existence of evil spirits in the iTaukei ethnomedical paradigm produced explanations of danger that ran alongside and sometimes contradicted biomedical models. Anthropologists have highlighted how iTaukei have a sense that people living in the present are constantly at risk of dangerous curses from the past (Tomlinson 2004), a trend that has increased since the rise of Pentecostalism (Presterudstuen 2014b). This fear of other-worldly demons is continually reinforced through prayer rituals that make people feel powerless, such that iTaukei can feel ever-vulnerable to “invisible malefactors.” Similarly, talk of evil spirits in this study was similarly “muted but present” and varied from village to village. In relation to diabetes and related complications, participants talked about spirits that manifested as *tevoro* (a Fijian adaptation of the Christian word, devil). These are often powerful ancestral spirits who reside in animals in the landscape which then sometimes possess individuals (Katz 1999). For some interlocutors, these evil spirits could be responsible for both causing diabetes and removing one’s ability to control the illness effectively. *Tevoro* could make a person sick with high blood pressure, even when that person may have been making preventative dietary changes:

If you go to a doctor, and they say ‘have you been eating any butter?’ and you go ‘I haven’t been eating any butter’, then it must be *Tevoro* (Ili, female iTaukei, focus group participant).

Others felt that *Tevoro* could possess doctors to give the wrong diagnosis, leading to a poor health outcome. This was a common explanation if a person died suddenly and inexplicably:

Sometimes, if a friend goes to the hospital, and they have very high blood pressure, [but] then the doctor say ‘no, no you alright. No pressure.’ That’s the devil! They get the doctor to not see the [evidence] ... Same after that. When she dies, we always say ‘*Oilei!* [oh my goodness!]’ (Mere, female iTaukei, focus group participant)

Evil spirits could also have ramifications for treatment-seeking decisions. If the patient or their family believed the cause of illness lay in evil spirits, they had a tendency to believe doctors would be ineffective and would thus seek alternative treatments, such as faith healers or medicinal plants.

Celia: if you get high blood pressure and you think it’s from *Tevoro*, do you need to get Fijian medicine?

Ateca: Io, Fijian medicine. Can’t cure in a hospital. [You need] leaves (Female iTaukei, focus group participant).

People from neighboring villages could also be accused of sorcery when a loved one fell ill. On Ovalau, a recent confrontation occurred after a young iTaukei man in his 40s died from stroke, after which the police were called to diffuse conflict between his family and those accused of causing the death. Accusations of sorcery often lead to violence in the Pacific (see Haley 2008), and recent constitutional changes in Fiji have made it illegal to accuse an individual of sorcery or witchcraft. My observations during fieldwork illustrated that it remains a powerful explanatory framework for some diabetes-related complications. For many iTaukei, the fear of spiritual threat was ever-present and could supersede biomedically defined risks.

Structural risks

Biomedical and neoliberal discourses moralize about risks in the aftermath of a diabetes diagnosis, such as consuming excessive sugar, salt, fat, or tobacco, and not complying with proven biomedical treatment regimes. Yet this veils the structural forces that necessitate risk-taking. Yates-Doerr’s (2014: 13) noted that in Guatemala “in a region where stomach cancer among children abounds, eating chips instead of vegetables washed in pesticide run-off may not be a decision made from poor education, but a difficult trade-off of one kind of sickness for another.” iTaukei patients were similarly forced to make practical, everyday trade-offs to manage their conditions. In terms of making dietary changes, healthy and fresh foods were often inaccessible or unaffordable in periurban communities.

In addition, geographic isolation often led to “risk-taking,” which – along with the cost and infrequency of transport – was a source of disadvantage. While Ovalau is isolated compared to mainland and urban areas in Fiji, some residents were more remote than others. One of the most pervasive themes from outer villages was the lack and infrequency of public transport on the island. Transport trucks or “carriers” were a cheap option for taking villagers into town, but these were infrequent, particularly in the furthest villages. Finding transport to the hospital outside of these times required a taxi fare, which could be prohibitive for many when deciding if, when and from whom to seek treatment:

[A taxi is] 60 to come and 60 to go. So that’s the main problem on that side [of the island] is the transport. Otherwise in the village they’ll wait for Tuesday and Thursday [when the carrier runs] (Gade, female iTaukei interviewee)

Tarryn: Why did you come today? Why didn’t you come yesterday?

Jone: My village is nine miles away from town. A long way. At that time the carrier has already come to town yesterday (Jone, male iTaukei interviewee).

Transport cost also prompted some participants to rely more heavily on traditional medicines:

Because most of us rely on the Fiji medicine. Easy for them to go to him than to go to hospital. From here to hospital you have to pay money. So ... cheaper (Anaseini, female iTaukei focus-group participant).

In both Ovalau and Suva, people in far-away villages felt disadvantaged in their ability to manage diabetes to those who lived closer to the centers. Although they were sometimes visited by mobile health clinics and zone nurses, the lack of access to a *hospital* did cause problems particularly in emergency situations such as stroke and heart attacks.

Another constraining factor affecting peoples’ treatment decisions was pharmaceutical supply stocked by healthcare services at any given time. This was highlighted to me in a geographically isolated informal settlement, when a zone nurse pointed out a small, lopsided shack about the size of an outhouse, with a hand-painted sign hanging on the door “Delaidogo Dispensary: project by student nurses.” The small wooden structure had long been abandoned and was covered by overgrown foliage. People with sufficient financial capital and networks overseas were able to overcome pharmaceutical shortages to some extent, such as this Indo-Fijian diabetic:

[Sometimes there is] no medication in the dispensary. The government running short of medication. And you just hold on with your prescription, ‘I’m only gonna give you two’, they cross it and the rest you come check again. But I don’t worry, I just ring my son and tell him just post it from there (Sandhika, female Indo-Fijian interviewee).

However, for those without these advantages, limited pharmaceutical supply did encourage some people to abandon their biomedical regime and return to traditional treatments.

Mosese: When we come here, lack of medicine.

Tarryn: So what do you do when there isn’t enough?

Mosese: Go back to Fijian medicine (Male iTaukei interviewee).

This default to ethnomedical and spiritual healing rituals highlights that many iTaukei were not recalcitrant, refusing or resisting biomedical knowledge, products, and services, but rather were unable to access them. Crucially, these barriers at times prevented iTaukei – both in Ovalau and periurban areas of the mainland – from complying with biomedical advice despite their initial intentions.

Discussion

Rates of morbidity and premature death from diabetes are exacerbated when iTaukei patients delay or do not use life-saving pharmaceuticals and biomedical services. Their ambivalence toward biomedicine is explained by many healthcare providers and the broader Fijian community

through a neoliberal lens as risk-taking and morally irresponsible. However, risk must be understood within the context of everyday lives (Desmond 2015). I have highlighted that iTaukei people with diabetes face multiple layers of risk in addition to those diagnosed biomedically, and engage different registers of treatment depending on which risks they feel are more immediate and what strategies are at hand to offer the most reassurance. Sometimes, biomedical definitions of diabetes-related symptoms – and pharmaceutical regimes – were de-prioritized because they were seen as less persuasive than spiritual explanations for the suffering. Sometimes, ethnomedical (herbal) remedies for managing diabetes-related symptoms were maintained because of their comforting connection to cultural identity. Sometimes prayer and faith healing were prioritized as sources of existential reassurance, in which – as in Hardin’s study (2016, 2018) – the onus of responsibility to manage the condition was taken from the individual and, rather, God was considered the agent of change. These different paradigms for understanding and managing uncertainty were not necessarily incommensurate with biomedicine: they sometimes overlapped, justified, or reinforced it. Yet crucially, poverty, geographic isolation, and pharmaceutical shortages continually constrained decision-making amongst people with diabetes. As Cox and Phillips (2015) found, faith-based and ethnomedical remedies were elevated as ways to manage uncertainty when people’s accessibility to biomedical services and pharmaceuticals were limited.

Conclusion

In addition to tackling the macro-economic conditions that exacerbate the prevalence of diabetes in the global south, it is crucial to better understand how diabetes-related risks are locally experienced and managed. In this article, I demonstrated how individuals weigh up circulating discourses about risk and implement strategies to manage them within the constraints of everyday life, so shaping the contours of diabetes management.

A focus on risk invites scholars and healthcare practitioners to reflect on how to optimize local risk-management. Some ethnographic moments illuminated the need for future research to find health promotion, intervention, and care strategies that might be more resonant for lower-income diabetes sufferers. One iTaukei patient mentioned that, while she uses herbal remedies for conditions that have long been in her community (for example boils, hemorrhoids, and common colds), she uses “western medicine” for her diabetes because it is a “western illness.” This powerful message preserved the cultural value of iTaukei ethnomedicine, shifted the stigma of blame from the individual to the postcolonial and neoliberal forces that have exposed the Fijian community to higher risk of NCDs, and simultaneously conveyed the life-saving importance of medication compliance. One avenue of inquiry is whether framing health promotion and medication advice in this way could better facilitate positive and respectful discussions about diabetes management.

Further, unlike the neoliberal and biomedical focus on behavioral risk factors – which downplays the impact of inequality – the church has become an important “avenue of social critique” in both Samoa (Hardin 2016) and Mozambique (Pfeiffer 2002) and thus could also play an integral role in shifting the individualizing public health language around diabetes. Most participants did not treat ethnomedical and spiritual risk-management as antithetical to biomedical knowledge, services, and pharmaceuticals, but rather as other modes of managing uncertainty which they aligned with, depending on the context. A crucial site for further research is what role *iTala-talas* and faith-based organizations – which have tremendous influence in guiding Fijian discourse – could play in promoting the importance of biomedical attention in particular contexts of emergency, and partner with health providers to find ways of theorizing the complementarity of biomedicine and pharmaceuticals within their spiritual frameworks. Ultimately, locally situated analyses of risk management reveal the multiple layers of social life that shape, constrain, and enable diabetes management.

Notes

1. Global estimates of the separate prevalence of type one diabetes versus type two diabetes in the statistics do not exist. However, the majority of cases are type two (WHO 2016).
2. I am grateful to my colleagues Susanna Trnka, John Taylor, and Celia McMichael who helped to think through the conceptual significance of managing medical uncertainty.
3. While most Indo-Fijians are Hindu or Muslim, some have also converted to Christianity.

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Notes on contributor

Tarryn Phillips is Senior Lecturer in the Department of Social Inquiry at La Trobe University and author of *Law, Environmental Illness and Medical Uncertainty: The Contested Governance of Health* (2015).

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