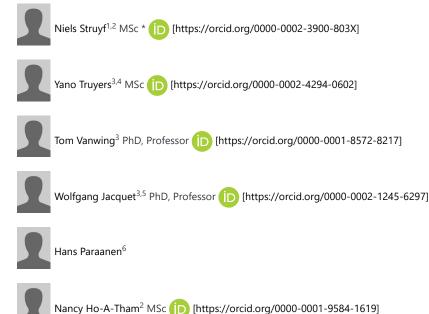


ORIGINAL RESEARCH

Impact of low back pain and care-seeking behavior in an Indigenous community in Suriname: a qualitative approach

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ABSTRACT:

Introduction: Low back pain is a significant global public health issue affecting over half a billion people and contributing to disability worldwide. The impact of disability related to low back pain is growing, particularly in low- and middle-income countries. In contrast with previous research, current evidence shows Indigenous Peoples also experience low back pain's disabling effects. A clinical ethnographic can contribute by attempting to understand the data through the perspective of Indigenous Peoples.

Methods: A clinical ethnographic study was conducted in Galibi, a Kalinya rural Indigenous village in Suriname, with support of the local traditional authority. The main objective was to explore the impact of low back pain and care-seeking behavior from the perspective of Indigenous Peoples with low back pain. **Results**: The findings were that low back pain had a significant

physical and emotional impact. Despite aggravating their low back pain, participants continued many of their activities of daily life since these were essential for their (economic) survival. Furthermore, participants expressed anxiousness, financial worries, and concerns about the cause and future of their low back pain. To address their low back pain, the Kalinya Indigenous Peoples used both western and traditional care. Visits to western healthcare practitioners were limited due to logistical challenges and travel costs, and the experience was often negative.

Conclusion: The study highlights the experiences of Kalinya Indigenous Peoples dealing with low back pain. Low back pain is a burden within Indigenous Peoples of Galibi but accepted as an integral part of their life. When in pain, Indigenous Peoples face many barriers to access western health care and visits to healthcare practitioners were often unhelpful. This contributed to a long-lasting negative impact on the Indigenous people with low back pain. Further research is needed to develop strategies that improve health outcomes related to low back pain while reducing its associated disability in Indigenous Peoples.

Keywords:

care seeking, disability, Indigenous Peoples, Kalinya, low back pain, Suriname.

FULL ARTICLE:

Introduction

Low back pain is an international public health issue affecting over half a billion people worldwide. Globally, low back pain is the greatest contributor to years lived with disability^{1,2}. The burden of low back pain related disability is increasing, particularly in lowand middle-income countries, where the rise is the most pronounced due to fragile health and social systems^{1,3}. Up to 95% of those suffering from low back pain are diagnosed with nonspecific low back pain because no patho-anatomical problem can be identified⁴. Low back pain is a complex biopsychosocial condition influenced by many factors such as cognitive (eq negative beliefs), psychosocial (eq depression) and social (eq culture) factors. These factors have been identified as important contributors to low back pain disability as well as mediators and moderators of treatment efficacy for low back pain^{1,3,5}. However, use of opioids, surgery and injections is inappropriately high in the general population without significant improvements and in contrast with the evidence-based recommendations⁵. Furthermore, low back pain is partly iatrogenic and exposure to healthcare practitioners (HCPs) with biomedical orientation can be harmful, possibly increasing long-term disability. These findings have been reported in both the western population and Indigenous Peoples^{6,7}.

5% of the global population. Disproportionately, they represent around a third of the world's population living in extreme poverty⁸. It was previously thought that Indigenous Peoples would be buffered from the disabling effects of low back pain due to their cultural beliefs⁹, but recent qualitative research suggests otherwise³. Low back pain is a highly disabling burden in Indigenous Peoples and is further compounded by the presence of comorbidities^{3,7}. Furthermore, many risk factors for low back pain are present in Indigenous Peoples such as worse overall health and social outcomes compared to non-Indigenous Peoples^{3,10}.

When Indigenous Peoples seek care for their low back pain within the western healthcare system, they face numerous and unique barriers¹¹⁻¹⁴. The experience is often unhelpful, leading to a longlasting negative impact on Indigenous patients^{7,11,13}. Many Indigenous Peoples around the world have a traditional medicine knowledge system that has been passed down through generations^{15,16}. These practices are deeply rooted within the culture of Indigenous communities. Traditional medicine has been historically used to treat various diseases including low back pain^{15,16}.

In 2017, the Community Oriented Program for Control of Rheumatic Diseases protocol (COPCORD) was executed in Suriname to provide the first insights into the burden of musculoskeletal diseases^{17,18}. Suriname is a multi-ethnic, middle-

It is estimated that Indigenous Peoples constitute approximately

income country in South America with cultures from all continents. The COPCORD Suriname study showed that low back pain is a highly prevalent health condition in Suriname, with more negative beliefs present among inhabitants of the rural areas than in urban areas¹⁸. Furthermore, treatment seeking was more prevalent among Indigenous Peoples¹⁸. Even though this research provided a first perspective into the burden of low back pain in Suriname, research suggests quantitative questionnaires may not be valid for Indigenous Peoples as they lack cultural validity, and abstract scales are hard to interpret for Indigenous Peoples^{12,19,20}. Qualitative methods can gain a rich insight into the experience of illness, attempting to understand the data through an Indigenous cultural lens^{19,21}. The aim of this study was to explore the experience of low back pain and the care-seeking process within a Kalinya Indigenous community in Suriname.

Methods

Setting

The research was undertaken in Galibi, the biggest Kalinya Indigenous village (approx. 600 inhabitants) in the north-east of Suriname. The village is in a rural area at the mouth of the Marowijne River on the border with French Guiana (Fig1). Galibi is only accessible by boat, with limited access to goods and services. Electricity is present between 7 pm and 11 pm if fuel is obtainable, and no running water was available at the time of the data gathering. The main source of income for the village is fishing, selling vegetables at the market, and tourism²².

A trained nurse, employed by the regional health services and with limited equipment, is the only HCP present in the village. For a visit to the GP, inhabitants need to travel by boat for 2 hours to Albina, the capital of Marowijne. Most HCPs such as physical therapists and medical specialists are located in the capital, Paramaribo (travel time approx. 5h).





Study approach and design

This qualitative study adopted an interpretive perspective. This approach acknowledges that the reality of low back pain is constructed by those who experience it, shaped by their daily interactions within their immediate and broader social world²³. A clinical ethnographic approach was used to understand the relationship between the lived experience of an illness (the bodily experience and know-how) and the illness as domesticated and understood theoretically and 'scientifically' by medicine^{24,25}. Researchers were tasked with interpreting the lived experiences of Kalinya Indigenous Peoples with low back pain within the context of current understanding of low back pain. The biopsychosocial model was used as a theoretical framework to guide this inquiry¹ and the Andersen Behavioral Model of Health Services Utilization was used as a sensitizing framework for care-seeking behavior for low back pain²⁶. During the study, respect for the culture and tradition of Kalinya Indigenous Peoples was paramount.

In 2017, the COPCORD protocol was executed in Galibi over a period of 2 weeks¹⁸. Following this, a revisit was conducted in 2019 to fulfill the commitment made in 2017, presenting the COPCORD study results to the inhabitants of Galibi as requested by traditional authority and part of our pledge to give back to community. As a result of this previous research project a relationship already existed between the researchers and this Indigenous community.

Information was gathered during a 2-week period in March 2020. This visit marked the first of several planned for 2020 as part of a new qualitative study on low back pain and the influence of migration. When the researchers arrived at Galibi, a *krutu* (traditional meeting with local traditional authority) was organized to discuss practical issues and daily execution of the research project within the village. After this, participants were informed by the traditional authorities and their representatives by word of mouth. Using snowball sampling, additional participants were identified through family and social networks of participants and evaluated on eligibility during the data gathering in the 2-week period²⁷.

Eligible participants were Kalinya Indigenous Peoples (at least three of the four grandparents needed to be of Indigenous descent based on the method mentioned by Khrisnadath et al²⁸) with current low back pain with or without leg pain.

The data were generated through in-depth, semi-structured interviews. The language used was Dutch or a mixture of Dutch and Sranan Tongo (an informal language spoken in Suriname). Participants had the option to do the interview in the Kalinya language, but all participants were fluent in Dutch and/or Sranan Tongo. The interviews were audio-recorded and lasted between 40 minutes and 1.5 hours. After each day, researchers discussed the information obtained during the interviews, and key informants were consulted if needed. Some participants were interviewed a second time if the researchers identified missing information. During the stay in the village, observations of inhabitants were systematically recorded as field notes.

Although the research project in Galibi had additional research goals, information-gathering was prematurely halted due to COVID-19. We as researchers felt confident data saturation had been reached on topics discussed in this research article as participants responses ceased to introduce novel themes or insight, indicating a comprehensive exploration of the subject matter.

Data analysis

A thematic analysis method was chosen to analyze the qualitative data, hereby building an in-depth description and interpretation of low back pain in the Galibi Indigenous community. Based on methodological literature, the structure of the qualitative data analysis relied on a complementary and pragmatic set of guiding principles^{29,30} and adopted an iterative process.

Interviews were transcribed and compared with field notes (and

memoranda) of the first author to identify points of convergence and divergence. The field notes were used to annotate the interview transcripts, adding comments, observations and insights. These annotations contextualized the data and provided additional layers of interpretation. In-depth data analysis was done by two researchers using NVivo R1/2020 v1.7.1 (Lumivero; https://lumivero.com/products/nvivo). First, the researchers familiarized themselves with the raw data to improve effectiveness and efficiency of the in-depth analysis. Second, both researchers separately identified key topics during the process of initial coding. After discussing the key topics and reaching agreement, both researchers reduced the elaborated codes into themes by searching for common elements or patterns. Themes were evaluated and reviewed in order to categorize subthemes and higher-order themes. Last, a network of subthemes and higherorder themes was created to visualize their interrelationship. Through this collaborative approach, we mitigated individual biases via researcher triangulation. By bringing together these perspectives, including an independent researcher who did not partake in the data collection process, we ensured a more robust and impartial exploration of the data, enhancing the reliability and credibility of our findings.

Ethics approval

Approval was granted by both the Ministry of Health (ethics approval number CMWO2019_15) and the local traditional authority of Galibi prior to the start of the project. During the first engagement with a participant, a representative of the traditional authority was present to facilitate the interviews and give context to make participants feel 'secure' during the interview. Before every interview, written consent was obtained.

Results

Twelve people (Kalinya Indigenous Peoples) participated, aged between 23 and 69 years. Five participants were male and seven were female. An overview of the participants is in Table 1.

Participant number	Work activity	Age (years)	Sex
1	Administrative work	23	F
2	Retired	63	М
3	None	39	F
4	Retired	67	М
5	Teacher	38	F
6	Cook (part time)	56	F
7	Fisherman	55	М
8	Retired	64	F
9	Fisherman	69	М
10	None	43	F
11	Fisherman	30	М
12	None	30	F

Table 1: Demographics of study participants

Impact of low back pain

Impact of low back pain on activities of daily living: All 12 participants reported activities of daily living (ADLs) related to the Indigenous way of living such as fishing or working and on the land as aggravators of their low back pain.

When I start to work [fishing], it is going to be painful, especially at night when I lay down. I can do it, but it is very taxing and requires a lot of effort. It is very physical work. But I must do it otherwise I can't eat. (Participant 11)

I have to carry the water [buckets] ... the pain gets double, but I can't change that. (Participant 12)

In Galibi, the ground consists of loose beach-like sand. Carrying heavy loads such as firewood is done with a traditional basket on the back, secured with a band to the forehead. Wheelbarrows are seldom used because of the loose sand. Continuing ADLs was essential for (economic) survival as no social security is present.

We, as women work hard, and some movements or activities cause pain ... for example rasping tapioca or carrying firewood ... It's because of the traditional basket, it can store a lot of firewood and it is heavy ... Men can get low back pain from clearing the jungle with a machete or collecting coconuts by climbing in the tree. (Participant 3)

If possible, I would do less (during the day) to reduce the pain ... but I am alone, there is no other help ... so I work the whole day and evening as well. (Participant 6)

Impact of low back pain on sleep: Half (6/12) of the participants had problems with getting to sleep or waking up at night due to low back pain.

I can sleep, but I have pain in my back. I have to try to lie down onto my belly, afterwards on my side ... then the other side ... than on my back until I fall asleep. Once I fall asleep ... I sleep well. (Participant 2)

If I have low back pain, I have trouble lying down on the bed. I have to lie down in a specific position, usually on my side. If that doesn't work, I go lay down in the hammock and rest in there. (Participant 5)

If the low back pain intensity is high, I have to get up at night and walk a bit, then I go back to sleep ... In one night, I wake up maybe 3–5 times. (Participant 11)

Impact of low back pain on emotional wellbeing: Low back pain was an emotional burden in two-thirds (8/12) of the participants. Participants described negative emotions including anger, grumpiness, anxiousness and worrying. The reason reported for anger and grumpiness was attributed to the pain itself, mostly when participants had an episode with high pain intensity.

Participant 1 preferred to keep pain and emotions related to low back pain to herself. When low back pain intensity was high in combination with other (stressful) factors, she would snub people due to frustration of the pain.

What I noticed in the past 8 years about myself. I try to act normal and participate in activities of daily living and avoid people noticing I am in pain ... Sometimes it happens subconsciousness [sic] that I snub at people at work ... I try to control myself but sometimes it is too much ... (Participant 1)

Worrying was the most described emotion. Some participants (6/12) expressed fear and anxiousness related to the cause of the pain. They were unsure what caused the pain and were anxious something severe might be present.

I am worried what causes the low back pain ... I was talking about it to a friend and said, I am going to do some checkups to see if everything is really ok with my back and lower abdomen. (Participant 5)

What is actually the cause of the pain? ... I still remember what the trained nurse said to me. Maybe it is clotted blood that causes the pain. (Participant 10)

Participants expressed concerns about their future, fearing their ability to do ADLs independently would diminish, forcing them to

depend on others.

I think ... What if it gets worse? Am I still going to be able to work? (Participant 6)

I am worried that, later when I get older, and I need to do something ... Lift something. I won't be able do it anymore [because of low back pain] and somebody needs to help me [with household activities]. (Participant 8)

Furthermore, participants were worried about their financial situation and how to provide an income and pay for basic services and needs.

I am a little bit worried; I can't do specific activities anymore ... for example, I can't finish building my house. Nobody can do it for me because you need money ... (Participant 4)

One participant referred to the stress caused in her family by excessive alcohol abuse, which negatively influenced and contributed to her low back pain.

Low back pain is also caused by alcohol that the men drink ... It results in stress for the family [dealing with a drunk husband] as well as financial consequences [due to spending all money on alcohol]. (Participant 12)

Care-seeking behavior for low back pain

Participants used a wide variety of both traditional and western care options for low back pain.

Traditional care: Some participants (5/12) in this study described the use of medicinal plants as a form of traditional medicine. Description of the preparation, method and choice of plants varied between participants. Leaves of the plants are either 'steamed' (a selection of leaves and flowers were cooked) and the person inhales the damp of the pottage (with a cloth over the head), or 'dabbed' (leaves are dabbed or rubbed on a specific part of the body). For low back pain, the focus of the traditional treatment was on pain relief.

We have medicinal plants ... you need to dab them on places that hurt ... somebody needs to help you because you cannot apply pressure on your back ... (Participant 8)

You cook it [the leaves or plants] and then you damp over it ... you will feel some relieve [sic]. (Participant 5)

Two traditional healers are present in the village. They are called *Piaaiman*. A *Piaaiman* focusses on diseases with a spiritual cause resulting in physical complaints. According to the *Piaaiman* themselves, they communicate with the spirits of the woods (no use of potions or plant-based recipes) to treat their patients. Only one participant visited the *Piaaiman* for low back pain. Based on the participants' statements, low back pain is not a disease of the mind, thus the Piaaiman could not offer any help.

You can go to the Piaaiman when you feel annoyed ... but don't really feel any pain ... you don't really know what it is or why, but you have pain all over your body and it has a spiritual cause. (Participant 8)

I go [to] the Piaaiman but only for spiritual problem but not for low back pain because low back pain cannot be caused by a spiritual problem. (Participant 1) I went to the Piaaiman to get treatment [for other complaints] but he didn't treat my back because low back pain is a doctor's disease. (Participant 11)

Western health care: Participants visited a diverse range of western healthcare options. Every participant had consulted a HCP at least once to address their low back pain. According to participants, the trained nurse only provided pain medication for low back pain.

The trained nurse only provides painkiller ... they help for a while, but afterwards the low back pain returns. (Participant 8)

Access to other HCPs was influenced by logistical and financial barriers. Inhabitants of Galibi try to combine non-urgent visits to HCPs outside the village with other duties and obligations. Thus, visits to HCPs were limited. When participants visited a HCP outside the village, the experience was often negative. Lack of advice, treatment or a diagnosis left participants wondering and worried about their low back pain. According to participant 1, she underwent a surgical procedure for which a lumbar puncture for anesthesia purposes was needed. During the follow-up visit, she addressed her low back pain but received limited information from her HCP.

Because of the lumbar puncture, I suffered from low back pain ... I told the specialist I suffered from low back pain after the surgery. The doctor told me there is not much they can do for me; they only could prescribe pain medications to reduce the symptoms ... (Participant 1)

Participants shared their recollections of (lack of) information and diagnosis given by HCPs of many years ago, underscoring the long-lasting impact of HCPs on their patients.

I went to a specialist in the hospital in the capital when I suffered from low back pain after my husband had hit me. They took an X-ray of my back and told me everything was fine ... but I was suffering, I even cried from the pain ... After that I never went back, and the low back pain stayed. (Participant 12)

I want my low back pain to improve ... I do not think it is going to happen because there is no medication ... The doctor gives pills, they help against the pain but not against the cause of low back pain ... I don't know what the cause is ... (Participant 7)

The general practitioner had done assessment of my back and told me my spine had moved and pushed against the nerves. So, when I play soccer, the spine pushes against the nerve which causes the low back pain ... They cannot do anything about it. (Participant 11)

Massage therapy was another treatment option used by most of the participants (9/12). Among these nine participants, six individuals elaborated on this by highlighting that massage therapy offered temporary pain relief during periods of high pain intensity. These massages were administered by spouses or family members.

The pain comes when my spine gets flatter ... when my wife massages my back, it gets longer again ... you notice it, if somebody massages you ... you hear it 'crack' and everything goes back in the correct place. (Participant 9) Additionally, four participants mentioned the utilization of wholebody massage therapy as a treatment option for low back pain, provided by massage therapists in Paramaribo, the capital of Suriname. This treatment did not focus on low back pain specifically but did improve their outcome with low back pain.

When I am in the capital, I go to a lady who does massage therapy [for the whole body]. When I am here [in the village] and I have severe back pain, my husband massages me and I see my low back pain reduces. (Participant 8)

A person's choice of care assumingly reflects their beliefs and opinions about low back pain³¹. When asked why they suffered from low back pain, almost all participants (10/12) referred to the workload regularly put on their bodies during their lifetime by the Indigenous way of living, eventually resulting in suffering from low back pain and other musculoskeletal diseases.

Due to working hard when I was younger, I got low back pain ... I had some accidents when I was younger such as a tree falling on me ... I didn't have low back pain at the time, it only came later due to getting older. The 'machines' in my body don't work that well anymore due to hard work. If I had worked less hard, it would have been better. (Participant 14)

We, as women work hard and some activities cause pain ... for example rasping tapioca or carrying firewood ... Men can get low back pain from clearing the jungle with a machete or collecting coconuts by climbing in the tree. (Participant 3)

One participant described that low back pain is unavoidable for Indigenous Peoples who lead a traditional Indigenous way of life and suggested a relationship between the amount of hard work done and number of musculoskeletal complaints.

Most people will eventually develop [musculoskeletal] complaints. If not, they maybe have not worked so hard. I, myself didn't have to work that hard when I was younger as I had the opportunity to go to school [secondary school in the capital]. But those who stayed in the village and helped their parents ... (Participant 8)

Only one participant mentioned clearly a non-biomedical cause of low back pain, namely stress due to alcohol abuse of family members.

Low back pain is also caused by alcohol that the men drink ... It results in stress for the family [dealing with a drunk husband] as well as financial consequences [due to spending all money on alcohol] ... (Participant 11)

Discussion

Impact of low back pain

Low back pain has an impact on different aspects of life such as ADLs, sleep and emotional wellbeing. Participants in this study hold strong beliefs that the strenuous manual labor (related to the way of living of Kalinya Indigenous Peoples) is a significant contributor to low back pain. The attitude of the inhabitants was to endure low back pain to assure financial security. Similar findings have been reported in other Indigenous communities^{19,32,33}. Indigenous Peoples state that traditional physical labor plays an important role in the development of musculoskeletal complaints (including low back pain) and, as a result, perceived it as unavoidable in their traditional way of living³⁴. Furthermore, acceptance of musculoskeletal pain within their traditional way of living could possibly result in underestimation of the true burden of low back pain, especially using quantitative research methods that lack cultural validity^{12,19,32,33}.

Sleep disturbances due to low back pain were reported by six participants. Research indicates sleep problems are common in patients with low back pain, with an estimated prevalence of 50–60%³⁵. Furthermore, sleep disturbance can negatively influence low back pain intensity and is a predictor of poor recovery from low back pain³⁶. Future research is needed to determine whether sleep improvements lead to pain reduction. Research on sleep in patients with low back pain is limited and none of the participants in these studies were Indigenous Peoples. However, good quality sleep is crucial, and its disruption can have serious consequences on overall wellbeing³⁷.

The emotional impact of low back pain was significant as participants expressed feelings of worrying, anger and anxiousness about the future and cause of the pain. Cognitive and emotional factors such as pain-related fear, anger and psychosocial distress are known to be contributors to low back pain disability and have also been observed in other Indigenous Peoples with low back pain^{1,19}. According to the fear avoidance model, unhelpful beliefs can induce pain-related fear, which can lead to avoidance and disability^{38,39}. Furthermore, a theoretical link between anger, the experience of injustice and disabling pain has been suggested in the literature⁴⁰. More research is needed into this association given the injustices and discrimination against Indigenous Peoples^{8,10}. Participants in the present study expressed mostly biomedical perspectives regarding the origin of their low back pain. They attributed their discomfort to structural vulnerabilities and anatomical factors affecting their spine. Biomedical-oriented beliefs are considered negative beliefs⁵. Thus, the emotional burden observed in this study may, in part, be explained based on the fear avoidance model^{38,39}. More research is needed into the link between emotions and perception of injustice in Indigenous Peoples suffering from disabling pain.

One participant displayed her anxiety about the social effects on the family due to excessive alcohol use. The local traditional authority of Galibi confirmed the excessive alcohol use and its social effects on family and the society/community. The link between alcohol abuse and pain is complex and multifactorial⁴¹. Alcohol use has several negative health effects including poorer general health, sleep disturbances and mental health problems, increasing the risk of low back pain^{1,41}. Not only the individual struggling with alcohol is affected but also their family members due to psychosocial and financial consequences. An alcoholabusing individual may trigger stress, anxiety and depression in other family members, which can permeate family dynamics and relationships contributing to the burden of low back pain⁴².

Care-seeking behavior

Apart from a certified nurse available in their village, Kalinya Indigenous Peoples must undertake a boat journey of minimum 2 hours to seek medical care from a medical doctor. For more specialist care, travelling to Paramaribo is necessary. The expenses associated with travel and accommodation can be significant and could possibly be a financial burden for Indigenous people suffering from low back pain. These geographical and logistical barriers in accessing healthcare services are not unique to Kalinya Indigenous Peoples. This has also been observed among other Indigenous communities worldwide^{11,43}.

When participants consulted their HCPs for low back pain, the experience was often negative and unhelpful. Due to lack of information and education about their low back pain or a more biomedical-oriented diagnosis, patients were left with negative beliefs and anxiety related to low back pain. Lin et al demonstrated that in Indigenous Peoples this can contribute to long-term, disabling low back pain⁷.

To help Indigenous people suffering from low back pain, HCPs should adopt an engaged strategy that prioritizes psychosocial factors, education and improving function within a healthcare setting with cultural adaptations^{5,44}. These cultural adaptations should include attention to language use and understanding of context by knowledge of history of Indigenous Peoples^{44,45}. Therefore, easily accessible, culturally adapted information about low back pain in line with the current guidelines could be beneficial, decreasing the reliance on physical and western health care as well as strengthening positive beliefs about low back pain⁴⁶.

Massage therapy by spouses overcomes some of the logistical barriers but research suggests this is not an effective treatment of low back pain, with only short-term results⁴⁷. However, massage therapy as utilized by Indigenous Peoples may exhibit variations in its application, usage and cultural meaning compared to western populations.

A wide variety of traditional medicines were applied by participants in Galibi. Traditional care methods centered around pain relief, often employing techniques such as steaming or application of leaves from medicinal plants. Use of traditional medicine is deeply rooted in cultural practices in the Indigenous Peoples in Suriname¹⁶. Combined use of allopathic approaches with traditional medicine has been reported by other Indigenous Peoples around the world^{32,33}. For example, Indigenous Peoples in India use *kadhas* (herbal medicines) or allopathic medicine to treat low back pain caused by 'bad or impure' blood³³.

Despite its unique advantages such as cultural importance, accessibility and community support, traditional medicine remains a relatively underexplored area of research. There is need for further investigation to determine if traditional medicine has the potential to function as a secure and economically viable addition to health care that can help reduce the burden of low back pain⁴⁸.

Strengths and limitations

A strength of this study is the use of qualitative methods to explore impact and care-seeking for low back pain. If done correctly, qualitative research allows for a more in-depth exploration of participants' perspectives¹⁹. This is particularly important when considering the potential for misrepresentation of abstract scales, often used in quantitative questionnaires, which can be challenging for Indigenous Peoples¹². Some quantitative methodologies, such as COPCORD, have addressed this issue by incorporating research on cultural validity and adapting their quantitative questionnaires^{11,20,49,50}. As both qualitative and quantitative methods possess unique strengths and limitations, incorporating cultural validity is essential for accurate data collection in research involving Indigenous Peoples. A limitation of this study is that for logistical reasons all researchers except for one were not Indigenous. Increasing the presence of Indigenous researchers in these studies can only enrich the depth of the research and foster greater community engagement. In the present study, explicit attention was given to cultural security. Meetings with the local traditional authority and key informants prior to and during data collection were implemented. Since all researchers and participants spoke both Dutch and/or Sranan Tongo, no language barrier was present and participants could speak freely.

Conclusion

Low back pain is a burden for the Kalinya Indigenous Peoples of Galibi, impacting different aspects of their lives. These findings shed light on the unique experiences and challenges faced in managing low back pain by a Kalinya Indigenous rural community in Suriname. This study's use of a clinical ethnographic approach emphasizes the need for cultural sensitivity in research on low back pain among Indigenous Peoples. More research is needed on impact of low back pain and care-seeking behavior in Indigenous Peoples to develop effective strategies. Without better insights into these topics, improving health outcomes and reducing the disability associated with low back pain becomes a challenging endeavor.

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Conflicts of interest

The authors have no conflicts of interest.

REFERENCES:

1 Hartvigsen J, Hancock MJ, Kongsted A, Louw Q, Ferreira ML, Genevay S, et al. What low back pain is and why we need to pay attention. *The Lancet* 2018; **391(10137):** 2356-2367. DOI link, PMid:29573870

2 Wu A, March L, Zheng X, Huang J, Wang X, Zhao J, et al. Global low back pain prevalence and years lived with disability from 1990 to 2017: estimates from the Global Burden of Disease Study 2017. *Annals of Translational Medicine* 2020; **8(6):** 299. DOI link, PMid:32355743

3 Strozzi AG, Peláez-Ballestas I, Granados Y, Burgos-Vargas R, Quintana R, Londoño J, et al. Syndemic and syndemogenesis of low back pain in Latin-American population: a network and cluster analysis. *Clinical Rheumatology* 2020; **39(9):** 2715-2726. DOI link, PMid:32232735

4 Bardin LD, King P, Maher CG. Diagnostic triage for low back pain: A practical approach for primary care. *Medical Journal of Australia* 2017; **206(6):** 268-723. DOI link, PMid:28359011

5 Foster NE, Anema JR, Cherkin D, Chou R, Cohen SP, Gross DP, et al. Prevention and treatment of low back pain: evidence, challenges, and promising directions. *The Lancet* 2018;
391(10137): 2368-2383. DOI link, PMid:29573872

6 Darlow B, Fullen BM, Dean S, Hurley DA, Baxter GD, Dowell A. The association between health care professional attitudes and beliefs and the attitudes and beliefs, clinical management, and outcomes of patients with low back pain: A systematic review. *European Journal of Pain (United Kingdom)* 2012; **16(1):** 3-17. DOI link, PMid:21719329

7 Lin IB, O'Sullivan PB, Coffin JA, Mak DB, Toussaint S, Straker LM. Disabling chronic low back pain as an iatrogenic disorder: A qualitative study in Aboriginal Australians. *BMJ Open* 2013; **3(4)**: e002654. DOI link, PMid:23575999

8 United Nations Department of Economic and Social Affairs, Permanent Forum on Indigenous Issues. *State of the world's indigenous peoples*. Volume 1. New York: United Nations, 2009.

9 Honeyman PT, Jacobs EA. Effects of culture on back pain in Australian Aboriginals. *Spine* 1996; **21(7):** 841-843. DOI link, PMid:8779015

10 Anderson I, Robson B, Connolly M, Al-Yaman F, Bjertness E,

King A, et al. Indigenous and tribal peoples' health (The Lancet-Lowitja Institute Global Collaboration): a population study. *The Lancet* 2016; **388(10040):** 131-157. DOI link, PMid:27979402

11 Peláez-Ballestas I, Alvarez-Nemegyei J, Loyola-Sánchez A, Escudero ML. Prevalence and factors associated with musculoskeletal disorders and rheumatic diseases in indigenous Maya-Yucateco people: a cross-sectional community-based study. *Clinical Rheumatology* 2016; **35:** 15-23. DOI link, PMid:26438109

12 Jimenez N, Garroutte E, Kundu A, Morales L, Buchwald D. A review of the experience, epidemiology, and management of pain among American Indian, Alaska Native, and Aboriginal Canadian peoples. *Journal of Pain* 2011; **12(5):** 511-522. DOI link, PMid:21330217

13 Loyola-Sanchez A, Richardson J, Wilkins S, Lavis JN, Wilson MG, Alvarez-Nemegyei J, et al. Barriers to accessing the culturally sensitive healthcare that could decrease the disabling effects of arthritis in a rural Mayan community: a qualitative inquiry. *Clinical Rheumatology* 2016; **35(5)**: 1287-1298. DOI link, PMid:26334916

14 Struyf N, Vanwing T, Jacquet W, Ho-A-Tham N, Dankaerts W. What do we know about Indigenous Peoples with low back pain around the world? A topical review. *Scandinavian Journal of Pain* 2024; **24(1):** 20230114. DOI link, PMid:38497253

15 Redvers N, Blondin B. Traditional Indigenous medicine in North America: A scoping review. *PLoS ONE* 2020; **15(8):** e0237531. DOI link, PMid:32790714

16 Mans DRA, Ganga D, Kartopawiro J. Meeting of the minds: traditional herbal medicine in multiethnic Suriname. In: HA El-Shemy (Ed.). *Aromatic and medicinal plants - back to nature*. InTech. 2017; **chapter 6.** DOI link

17 Ho-A-Tham N, Ting-A-Kee B, Struyf N, de Almeida Mello J, Dankaerts W, Vanlandewijck Y. Prevalence of musculoskeletal complaints and health-related quality of life in a Maroon and Kalinya Indigenous rural village in Suriname. *Quality of Life Research* 2023; **32:** 1955-1970. DOI link, PMid:36823327

18 Ho-A-Tham N, Ting-A-Kee B, Struyf N, Vanlandewijck Y, Dankaerts W. Low back pain prevalence, beliefs and treatmentseeking behaviour in multi-ethnic Suriname. *Rheumatology Advances in Practice* 2021; **5(3):** rkab074. DOI link, PMid:34778699

19 Lin IB, O'Sullivan PB, Coffin JA, Mak DB, Toussaint S, Straker LM.

"I am absolutely shattered": The impact of chronic low back pain on Australian Aboriginal people. *European Journal of Pain (United Kingdom)* 2012; **16(9):** 1331-1341. DOI link, PMid:22392923

20 Peláez-Ballestas I, Granados Y, Silvestre A, Alvarez-Nemegyei J, Valls E, Quintana R, et al. Culture-sensitive adaptation and validation of the Community-Oriented Program for the Control of Rheumatic Diseases methodology for rheumatic disease in Latin American indigenous populations. *Rheumatology International* 2014; **34(9):** 1299-1309. DOI link, PMid:24682426

21 Creswell JW. *Qualitative enquiry and research design: Choosing among five traditions*. Thousand Oaks: Sage Publications, 1998.

22 Zaalman H, Kumanajare G, Biswane L, Watamaleo G, Barend M, Oeloekanamoe S, et al. *Marauny Na'na Emandobo Lokono Shikwabana ("Marowijne- our territory"). Traditional use and management of the Lower Marowijne area by the Kaliña and Lokono.* 2006. Available: web link (Accessed 3 September 2024).

23 Crotty MJ. *The foundations of social research: Meaning and perspective in the research process.* London: Routledge, 1998. DOI link, PMid:31940266

24 Miller WT, Crabtee BF. Clinical research. In: NK Denzin, YS Lincoln (Eds). *Handbook of Qualitative Research*. Thousand Oaks: Sage Publications, 2000; 607-631.

25 Benner P. The tradition and skill of interpretive phenomenology in studying health, illness, and caring practices. In: P Benner (Ed.). *Interpretive Phenomenology: Embodiment, caring, and ethics in health and illness.* Interpretive Phenomenology: Embodiment, caring, and ethics in health and illness: Sage Publications, 1994. DOI link

26 Andersen RM. Revisiting the behavioral model and access to medical care: does it matter? *Journal of Health and Social Behavior* 1995; **36(1):** 1. DOI link, PMid:7738325

27 Flick U. *The SAGE Handbook of Qualitative Research Design*. Vol.
1. 2022. Thousand Oaks: Sage Publications. DOI link,
PMid:35221587

28 Krishnadath IS, Smits CC, Jaddoe VW, Hofman A, Toelsie JR. A national surveillance survey on noncommunicable disease risk factors: Suriname Health Study Protocol. *JMIR Research Protocols* 2015; **4(2):** e75. DOI link, PMid:26085372

29 Bryman A. *Social research methods*. 5th Edition. Oxford: Oxford University Press, 2016.

30 Savin-Baden M, Major CH. *Qualitative research: the essential guide to theory and practice*. London: Routledge, 2013.

31 Madden V, O'Sullivan P, Fisher J, Malambule B. "Our training left us unprepared" - two physiotherapists' reflections after working with women with low back pain in a rural Zulu community in South Africa. *Journal of Community and Health Sciences* 2013; **8(2).**

32 Barbosa de Moraes EB, Dal Fabbro DR, de Oliveira LB, Leão ER. Pain management of Amazon indigenous peoples: A communitybased study. *Journal of Pain Research* 2021; **14:** 1969-1980. DOI link, PMid:34234543

33 Mullerpatan R, Nahar S, Singh Y, Cote P, Nordin M. Burden of spine pain among rural and tribal populations in Raigad District of Maharashtra State of India. *European Spine Journal* 2021; **30(4):** 1004-1010. DOI link, PMid:32914232

34 Hondras M, Hartvigsen J, Myburgh C, Johannessen H. Everyday burden of musculoskeletal conditions among villagers in rural

Botswana: A focused ethnography. *Journal of Rehabilitation* Medicine 2016; **48(5):** 449-455. DOI link, PMid:27058751

35 Alsaadi SM, McAuley JH, Hush JM, Maher CG. Prevalence of sleep disturbance in patients with low back pain. *European Spine Journal* 2011; **20(5)**: 737-743. DOI link, PMid:21190045

36 Alsaadi SM, McAuley JH, Hush JM, Lo S, Lin CWC, Williams CM, et al. Poor sleep quality is strongly associated with subsequent pain intensity in patients with acute low back pain. *Arthritis and Rheumatology* 2014; **66(5):** 1388-1394. DOI link, PMid:24782195

37 Orzeł-Gryglewska J. Consequences of sleep deprivation. International Journal of Occupational Medicine and Environmental Health 2010; **23(1):** 95-114. DOI link, PMid:20442067

38 Christe G, Crombez G, Edd S, Opsommer E, Jolles BM, Favre J. Relationship between psychological factors and spinal motor behaviour in low back pain: a systematic review and meta-analysis. *Pain* 2021; **162(3):** 672-686. DOI link, PMid:33591109

39 Linton SJ. A review of psychological risk factors in back and neck pain. *Spine* 2000; **25(9):** 1148-1156. DOI link, PMid:10788861

40 Sullivan MJL, Adams H, Horan S, Maher D, Boland D, Gross R. The role of perceived injustice in the experience of chronic pain and disability: scale development and validation. *Journal of Occupational Rehabilitation* 2008; **18(3):** 249-261. DOI link, PMid:18536983

41 Zale EL, Maisto SA, Ditre JW. Interrelations between pain and alcohol: An integrative review. *Clinical Psychology Review* 2015; **37**: 57-71. DOI link, PMid:25766100

42 Nieminen LK, Pyysalo LM, Kankaanpää MJ. Prognostic factors for pain chronicity in low back pain: a systematic review. *PAIN Reports* 2021; **6(1):** e919. DOI link, PMid:33981936

43 Ottesen TD, Amick M, Kapadia A, Ziatyk EQ, Joe JR, Sequist TD, et al. The unmet need for orthopaedic services among American Indian and Alaska Native communities in the United States. *Journal of Bone and Joint Surgery* 2022; **104(11):** E47. DOI link, PMid:35104253

44 Chowdhary N, Jotheeswaran AT, Nadkarni A, Hollon SD, King M, Jordans MJD, et al. The methods and outcomes of cultural adaptations of psychological treatments for depressive disorders: a systematic review. *Psychological Medicine* 2014; **44(6):** 1131-1146. DOI link, PMid:23866176

45 Towle A, Godolphin W, Alexander T. Doctor-patient communications in the Aboriginal community: Towards the development of educational programs. *Patient Education and Counseling* 2006; **62(3):** 340-346. DOI link, PMid:16860965

46 Lin IB, Ryder K, Coffin JA, Green C, Dalgety E, Scott B, et al. Addressing disparities in low back pain care by developing culturally appropriate information for Aboriginal Australians: "My back on track, my future.". *Pain Medicine (United States)* 2017; **18(11):** 2070-2080. DOI link, PMid:28087847

47 Furlan AD, Giraldo M, Baskwill A, Irvin E, Imamura M. Massage for low-back pain. *Cochrane Database of Systematic Reviews* 2015; **2017(12).** DOI link, PMid:26329399

48 World Health Organization. *WHO traditional medicine strategy:* 2014-2023. [Internet]. 2013. Available: web link (Accessed 21 October 2022).

49 Granados Y, Rosillo C, Cedeño L, Martínez Y, Sánchez G, López G, et al. Prevalence of musculoskeletal disorders and rheumatic disease in the Warao, Kari'ña, and Chaima indigenous populations

of Monagas State, Venezuela. *Clinical Rheumatology* 2016; **35:** 53-61. DOI link, PMid:26895629

50 Julián-Santiago F, García-García C, García-Olivera I, Goycochea-

Robles MV, Pelaez-Ballestas I. Epidemiology of rheumatic diseases in Mixtec and Chontal indigenous communities in Mexico: a crosssectional community-based study. *Clinical Rheumatology* 2016; **35**: 35-42. DOI link, PMid:26689797

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