What Are Possible Reasons for the Different Choices of Low Back Pain Healthcare Between European, Māori, and Pasifika for Services Funded by the Accident Compensation Corporation?

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ABSTRACT

Aotearoa New Zealand has a unique funding model in the Accident Compensation Corporation (ACC), for those who have an injury. The ACC funds a range of healthcare practitioners to treat low back pain from accidental causes and the costs continue to rise. However, there are clear ethnic differences in the services accessed. Data were obtained from ACC and analysed to observe trends in the number of claims and the cost per claim over an 11-year period. The three key findings were: (a) Māori and Pasifika have a lower number of claims than their European counterparts, proportional to population; (b) Māori have fewer claims, but a higher cost per claim than other ethnic groups; and (c) Māori and Pasifika use GP services most frequently, whereas Europeans use physiotherapy. Several factors are potential drivers of these differences, including cost of services leading to delay in seeking help, lack of culturally appropriate information about services, lack of culturally appropriate services, and disproportionately low numbers of Māori and Pasifika in the healthcare workforce. Possible solutions include earlier referral for physiotherapy, building connections with patients, and embracing principles of health models, Te Whare Tapa Whā (Māori) and Fonofale (Pasifika) (which describe the essential elements for health: spiritual, physical, mental and emotional, family, and social).

Saywell, N. L., Gordon, J., Adams, T., Niazi, I., & Hill, J. (2024). What are possible reasons for the different choices of low back pain healthcare between European, Māori, and Pasifika for services funded by the Accident Compensation Corporation? *New Zealand Journal of Physiotherapy, 52*(3), 250–256. https://doi.org/10.15619/nzjp.v52i3.458

Key Words: Accident Compensation Corporation, Healthcare, Low Back Pain, Māori, Pasifika

INTRODUCTION

Most New Zealanders (87%) will experience low back pain (LBP) at least once in their lifetime (Darlow et al., 2014) from disease, accident, or injury. Recent annual figures show there were over 304,000 Accident Compensation Corporation (ACC) claims for LBP from accidental causes in 2020 (Hill et al., 2023). ACC offers a range of services via approved providers for people with LBP seeking primary healthcare, offering a wide choice for claimants (Accident Compensation Corporation, 2024).

Aotearoa New Zealand is an ethnically diverse country. At the last census, 68% of the population were European, 18% Māori, 9% Pasifika, 17% Asian, and 2% Middle Eastern, Latin American, or African (people can identify as more than one ethnicity, so the total is more than 100%) (Stats NZ, 2023). Māori and Pasifika are particularly poorly served by the health system and ethnicity-based inequity in healthcare has been well documented, so the focus of this paper is on differences between European, Māori, and Pasifika use of services for LBP (Health Quality and Safety Commission, 2019).

To achieve an inclusive healthcare system for all New Zealanders, it is important to understand individual healthcare needs, including recognising ethnic differences in health priorities and values, such as the attributes, competencies, and skills people value in health practitioners and that engender trust. This impacts who people choose as their healthcare provider. Our initial step was to analyse the choice of healthcare provider

by ACC claimants with LBP. While data were collected for all ACC claims, the focus of this paper is on Māori and Pasifika healthcare. The discussion focuses on findings from a paper by Hill et al. (2023).

The aim of this paper is to present a scholarly opinion on the differences between European, Māori, and Pasifika healthcare use and costs for ACC services for people with low back pain, found in a recent study (Hill et al., 2023). In collaboration with a Māori physiotherapist (JG), tribal affiliation Ngāti Raukawa and Ngāti Maniapoto, we suggest reasons for this and present possible solutions to promote equity.

METHODS

We extracted ethnicity data from a larger retrospective audit and descriptive analysis of ACC-funded, healthcare service for people with LBP (Hill et al., 2023).

The data sets used are as follows:

1. Claims and costs of healthcare, by ethnicity as a proportion of the population.
2. The number of claims, and the cost, by ethnicity as a proportion of ACC funding for LBP claims.
3. The trends in healthcare usage by ethnicity between 2009 and 2020.

We collected and analysed data from ACC-recorded claims and costs of LBP healthcare services between 2009 and 2020. All data were de-identified, so participant consent and ethical approval were not required.

Data management

Every person who seeks healthcare funded by ACC is asked to identify their ethnicity on an ACC45 claim lodgement form. The choices offered by ACC of ethnic groups are Māori, Pasifika, Asian, European, or other. Those who identify as Māori, even if they identified with several ethnicities, were recorded as Māori. Data on ethnicity, and where people accessed their healthcare, were charted.

Data analysis

Descriptive analysis of the healthcare services was completed. The "other" category was excluded in this analysis as it was a heterogeneous group with no ability to categorise ethnicity. Trends were considered from 2009 to 2020 and an analysis of the most recent full year of data (2020) was undertaken. Graphs were plotted in R (The R Foundation for Statistical Computing, 4.1.0) (CoreTeam, 2021) using package ggplot2 (version 3.3.3) (Wickham et al., n.d.).

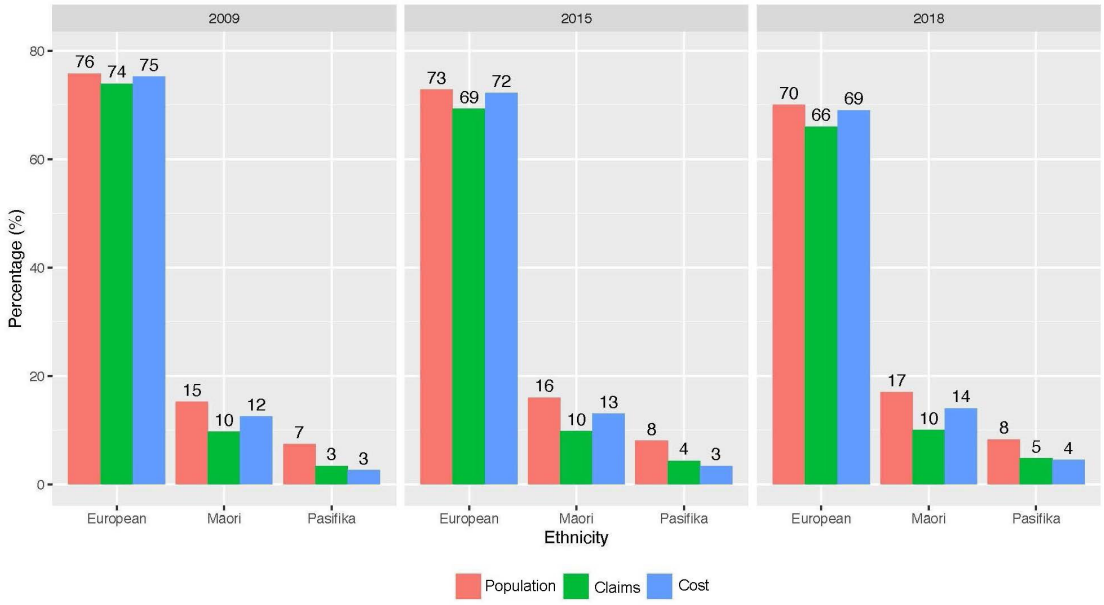
RESULTS

The results present differences in healthcare use by ethnicity. It was established using the Chi-square test of independence that selection of service type and ethnicity are dependent. This means the choice of service type is significantly associated with ethnicity across all years examined. The three data sets are shown below.

Figure 1 shows the proportion of total claims and the cost of claims relative to the proportion of each ethnicity in Aotearoa New Zealand. Europeans represented most claims, and their claims and costs were commensurate with their percentage of the population. Pasifika people had the lowest number of claims and the lowest healthcare costs, which were well below their percentage of the population. Claims by Māori were lower relative to their percentage of the population, but their relative healthcare costs were higher (closer to their percentage of the population).

Figure 1

ACC Claims and Costs by Ethnicity During the Study Period



Note. The proportion of each ethnicity changed over time.

Figure 2 shows the number of claims and their cost, as a percentage of total ACC LBP claims. Europeans claimed at a level commensurate with their proportion of the population; however, both their number of claims and costs decreased over the period in review. Claims by Māori and Pasifika increased at a very slow pace < 2% over the 11 years in review; however, for Māori claimants the cost per claim was higher than any other ethnic group.

Figure 3 presents the data for the healthcare provider selected by individuals (presented by ethnicity), which shows that for Europeans physiotherapy is consistently the most used service, with the GP second. For Māori and Pasifika, GP services are used more frequently than physiotherapy

DISCUSSION

The aim of this paper was to hypothesise reasons for the differences between European, Māori, and Pasifika healthcare use and costs, for ACC services for people with low back pain, and to present possible solutions to promote equitable access to healthcare.

Māori and Pasifika used GP services more than any other healthcare service for LBP, compared to their European counterparts, who used physiotherapy services most frequently. There was a low number of claims for Māori and Pasifika, who had fewer claims than Europeans, proportional to their population. Although Māori had a lower percentage of claims, they had higher costs per claim. There is considerable overlap of potential drivers of the key study findings. Reasons for each key finding are hypothesised and represented with possible solutions, in Figure 4.

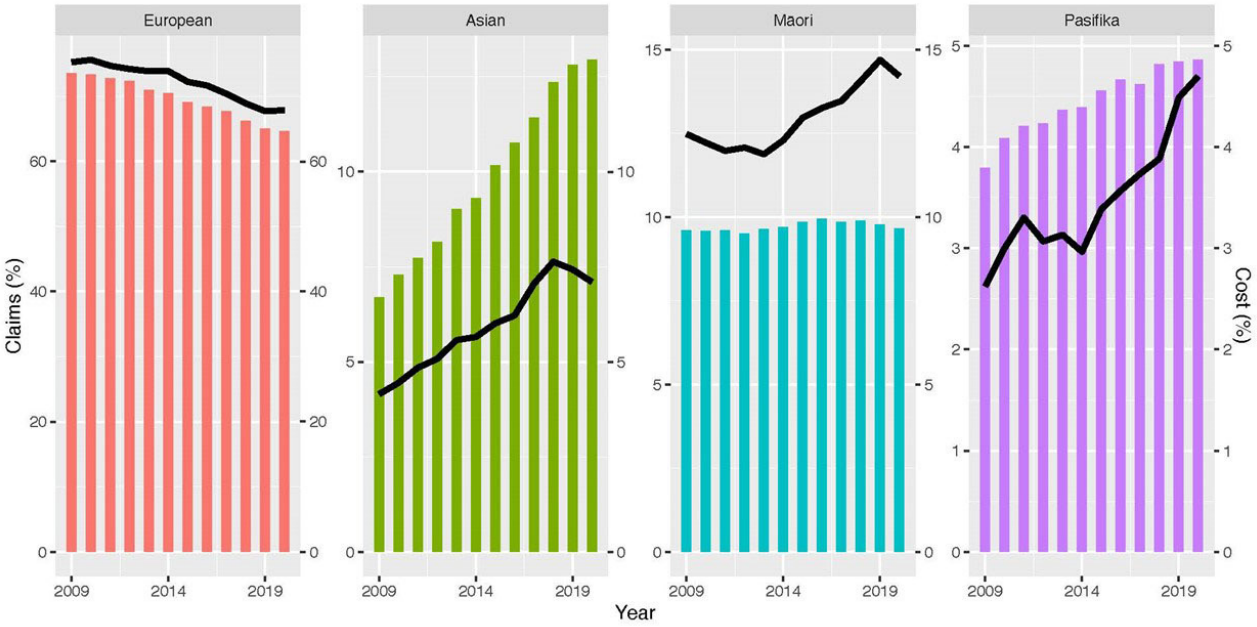
Why do Māori and Pasifika have a lower number of claims than Europeans proportional to population?

The lower claim lodgement could be explained by a lower injury rate for Māori and Pasifika. However, as both groups are highly represented in manual work and contact sport (Ministry of Social Development, 2016), the more likely explanation is more complex and includes the cost of accessing appropriate healthcare and the availability of culturally appropriate services. Jeffreys et al. (2023) investigated cost barriers to accessing healthcare in Aotearoa New Zealand and found that 22% of Māori, compared to 13% of non-Māori, encountered cost barriers to seeing a GP. In their study Māori represented only 10% of total LBP claims, despite making up 18% of the Aotearoa New Zealand population (Stats NZ, 2015). There is a burgeoning body of literature exploring Pasifika peoples' access to healthcare and the multiple barriers Pacific people face in a system where cultural support is often "overloaded and under resourced", and a Ministry of Health report (Ministry of Health, 2023; Ryan, 2019) found Pasifika people also experienced significant cost barriers to accessing healthcare services.

A biomedical approach, focused on physical symptoms, may disregard culturally relevant methods of managing health, thus reducing equity of care (Dixon et al., 2021; Graham & Masters-Awatere, 2020). A scoping review by Harfield et al. (2018) investigated characteristics of successful healthcare services for Indigenous populations and found that cultural consideration was the most prominent characteristic that underpinned all other identified characteristics. At the heart of culturally appropriate services are a skilled workforce, community participation, and self-determination and empowerment (Harfield et al., 2018).

Figure 2

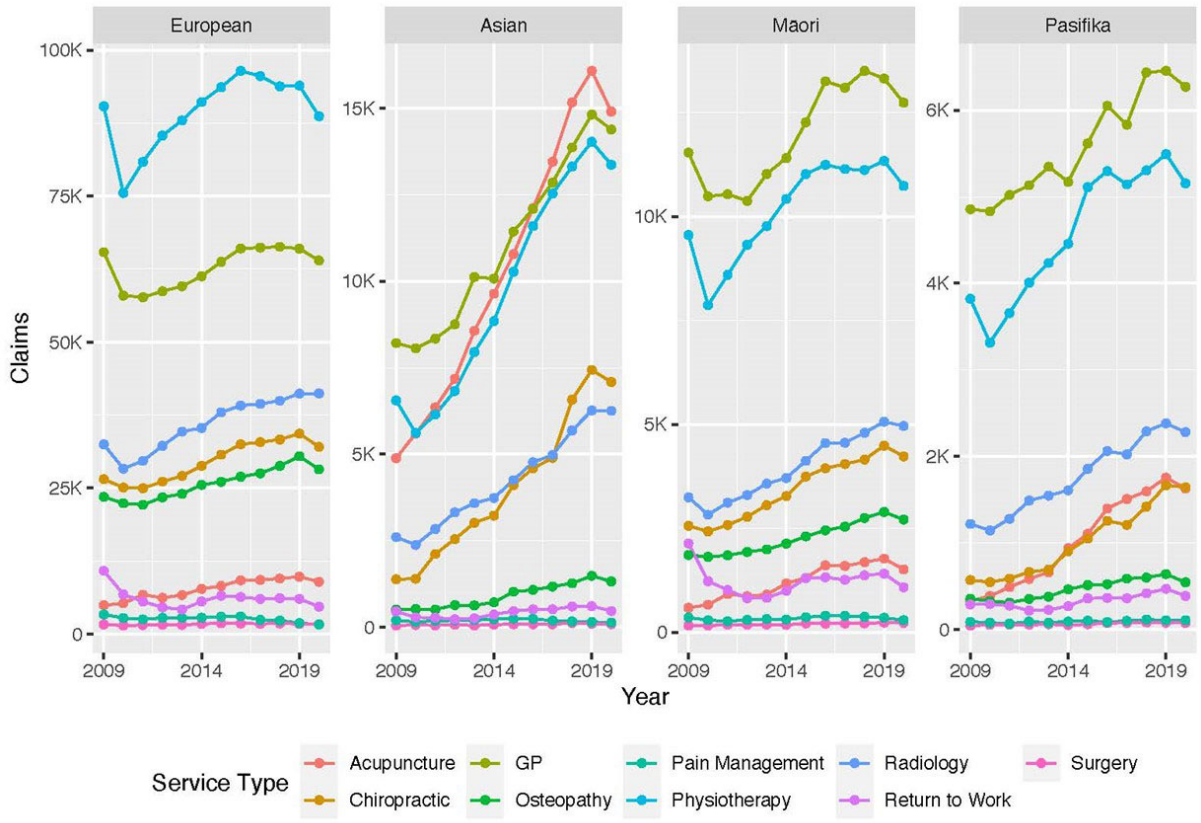
Percentage of Total ACC-funded LBP Claims and Costs by Ethnicity



Note. Claims = coloured columns; costs = black line. Note the floating Y axis that shows trends more clearly.

Figure 3

Percentage Distribution of Total LBP Claims by Service Type for Each Ethnicity, 2010–2020



Note. This figure provides a proportional view of service utilisation, highlighting how each service type contributes to the total claims for each ethnic group.

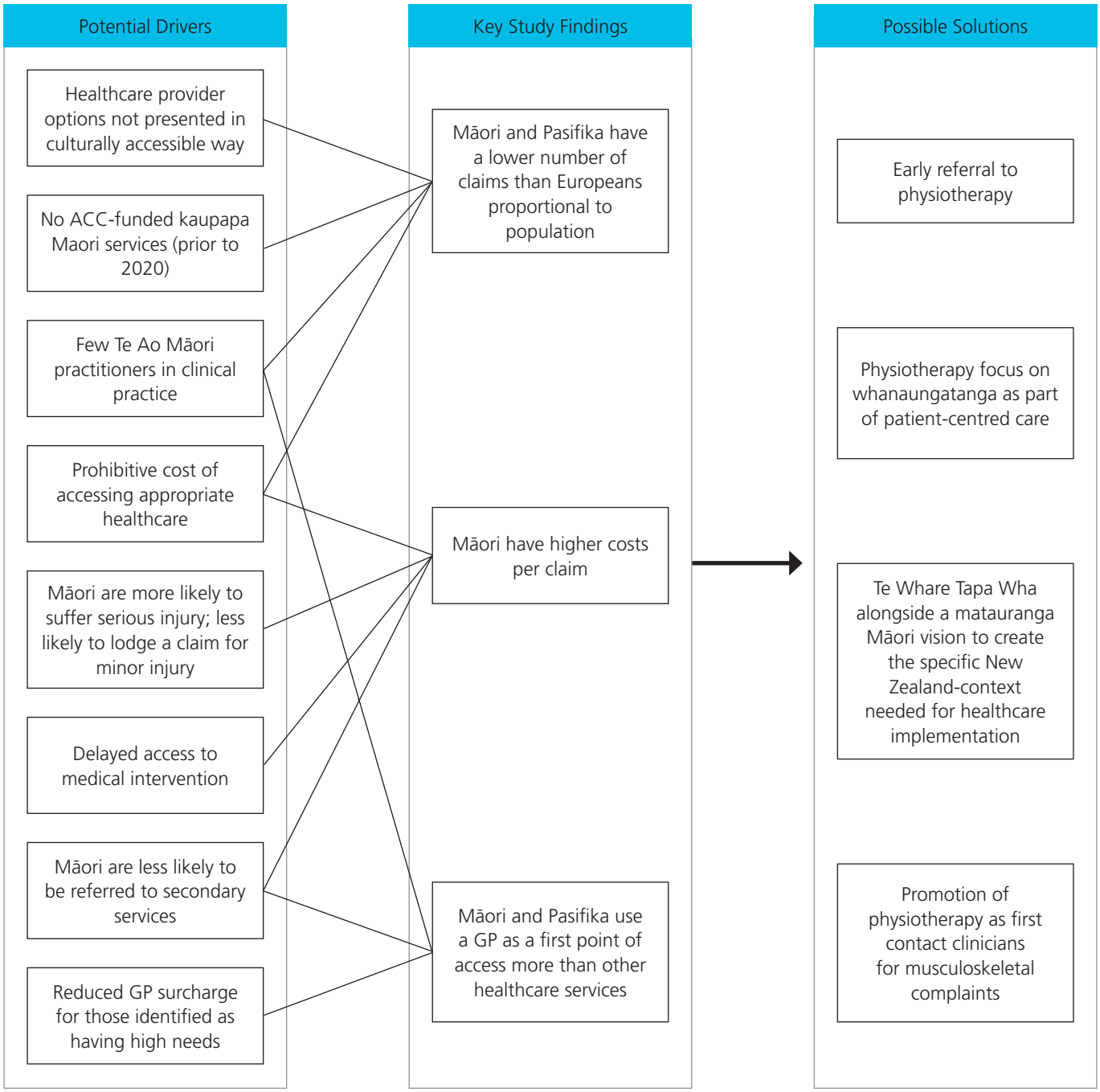
The Physiotherapy Board of New Zealand annual report (Physiotherapy Board of New Zealand, 2024), reported the percentage of physiotherapists in Aotearoa New Zealand as 4% Māori and 2% Pasifika. This shows significant under-representation in the workforce considering 18% of the population of Aotearoa New Zealand are Māori and 9% Pasifika. This potentially reduces the inclusion of Māori-specific beliefs or practices in mainstream Western-oriented public healthcare. There have been no kaupapa Māori services funded by ACC for LBP. However, in 2020 for the first time the use of rongoā Māori (traditional healing processes) was supported by ACC, reversing the longstanding omission of culturally relevant services, to improve access to and experience of ACC services for Māori. Graham and Masters-Awatere (2020), in a systematic review of qualitative research over two decades, state that Māori health practitioners who provide "warm, holistic, culturally appropriate" (p. 198) healthcare improve engagement with Māori patients. Adopting Māori models of healthcare such as Te Whare Tapa Whā (Durie, 1994), alongside a mātauranga Māori vision (using Indigenous knowledge) and Pasifika models of health such as Fonofale (Pulotu-Endemann & Tu'itahi, 2009), will create the specific Aotearoa New Zealand context needed for healthcare implementation, helping to remove barriers for Māori and Pasifika to access appropriate LBP services.

Why do Māori have higher costs per claim?

Ministry of Health data show that disability related to injury is higher for Māori than for non-Māori (Ministry of Health, 2016). The reasons for this are outlined in this section. The findings from the current study show that people with LBP have the choice of consulting a wide range of healthcare practitioners. Bise et al. (2023) in a study in the USA, suggest that patients who chose physiotherapy and chiropractic early during their care had the shortest median length of LBP episode, which lowered costs and decreased the likelihood of developing a chronic condition. Other studies support this finding, that patients who receive physical therapy or chiropractic treatment early in their LBP episode require less expensive and less invasive procedures compared to those who select GP care (Fritz et al., 2016). Māori access these rehabilitation services less frequently and often present later after the onset of their LBP than their European counterparts; ACC data show that Māori and Pasifika are less likely to be referred to services like physiotherapy, and Māori experience longer waiting times and are less likely to receive best-practice interventions for their health conditions (Accident Compensation Corporation, 2021; Health Quality and Safety Commission, 2019). These factors increase the likelihood of developing a chronic condition, leading to higher costs per claim for Māori.

Figure 4

Potential Drivers of the Key Study Findings and Possible Solutions



There is a need to change patient perception that the GP is the "only rational choice for … management of a musculoskeletal complaint" (Moffatt et al., 2018, p. 128). General practice services for those with a community services card are heavily subsidised by ACC, which may account for them being the most frequently accessed by Māori and Pasifika, and for the reduced appeal of other healthcare services such as physiotherapy or chiropractic, which are not included in this scheme (Accident Compensation Corporation, 2021; Health Quality and Safety Commission, 2019). Electing to visit the GP is the lowest cost option for patients but the highest cost option for ACC (Hill et al., 2023). Access to physiotherapy treatment without a surcharge to the patient is available via Health New Zealand Te Whatu Ora with a GP referral. However, this entails long waiting times, so if a patient wishes to access physiotherapy via this route, the delay may increase the chance their LBP will become chronic, disabling, and more costly (Wyeth et al., 2013). One further cause of higher cost per claim is that Māori are more

likely to suffer a serious injury and less likely to lodge a claim for a minor injury (increasing the average cost per claim) (Accident Compensation Corporation, 2022).

Why do Māori and Pasifika use a GP more than other healthcare services?

The relationship with the GP is often established over many years; however, similar relationships with physiotherapists are less common. Dixon et al. (2021) state the need to incorporate te ao Māori into clinical practice, encouraging physiotherapists to focus on whanaungatanga, creating relationships with patients prior to treatment.

The range of healthcare provider options have not always been presented in a culturally accessible way. ACC have begun to address this with "Kia Mahea Kia Puawai" (making it clear so we can flourish), which is a "by Māori for Māori" campaign to increase awareness of ACC services and support. The result of this campaign has been an increase in digital engagement by Māori seeking ACC support services (Accident Compensation Corporation, 2022). Our study only collected data up to the end of 2020, so will not have captured any resultant change in healthcare use.

In an attempt to improve access to healthcare, an initiative known as "The Very Low-Cost Access scheme" was introduced in 2006. This scheme reduced GP service charge for those identified as having high needs. The high-needs population identified represents around 50% of the enrolled GP population, of which Māori, Pasifika were over-represented (National Hauora Coalition, 2016). While this initiative helped increase access to GP services for Māori and Pasifika, there is still a disparity in access to healthcare services (Accident Compensation Corporation, 2021). Māori also have a higher proportion of the population living in rural areas where treatment providers such as physiotherapy and GP services are less accessible.

CONCLUSION

There are differences between ethnic groups in their choice of healthcare provider and use of health services for LBP. There is still an unmet need for a range of visible, accessible, affordable, and evidence-based healthcare services, which may influence where Māori and Pasifika seek help. Appropriate services need to encompass more than just physical health and must address cultural needs as an equally important part of recovery. While healthcare practices are adapting and changing in response to the needs of Māori and Pasifika, the initiatives led by those with cultural knowledge have the best chance of improving equity in healthcare.

KEY POINTS

1. The choice of healthcare provider for low back pain after injury differs between ethnicities.
2. Europeans are most likely to consult a physiotherapist; Māori and Pasifika are most likely to consult a GP for low back pain after injury.
3. Māori have higher cost per claim, as they are less likely to claim for minor low back pain after injury and more likely to delay seeking treatment.
4. Service information, service provision, and service providers that meet cultural needs may improve access to physiotherapy.

DISCLOSURES

No funding was obtained for this study. There are no conflicts of interest that may be perceived to interfere with or bias this study.

PERMISSIONS

No permissions were required for this publication. De-identified data were used so neither consent nor ethical approval was required.

ACKNOWLEDGEMENTS

We would like to acknowledge and thank Andew South, senior liaison librarian at Akoranga campus, AUT, for his patient support and assistance with referencing challenges. We would also like to thank case managers at ACC who generously supported access to and interpretation of data on claims for LBP treatment.

CONTRIBUTIONS OF AUTHORS

The clinical perspective is from a previous study; design, conceptualisation and methodology, JH and NS; clinical perspectives, TA; cultural perspectives, JG. The formal analysis was undertaken by IN; validation and design, TA; writing–original draft preparation, JG, NS, JH, IN and TA; writing–review and editing, NS, JH, TA, IN and JG.

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