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RESEARCH

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Access to eye care among adults from an underserved community in Aotearoa New Zealand

Jaymie T Rogers[a], Himal Kandel[b], Matire Harwood[c], Telusila Vea[a], Joanna Black[a] and Jacqueline Ramke[a,d]

[a]School of Optometry and Vision Science, The University of Auckland, Auckland, New Zealand; [b]Save sight Institute, The University of Sydney, Sydney, Australia; [c]Department of General Practice and Primary Health Care, The University of Auckland, Auckland, New Zealand; [d]International Centre for Eye Health, London School of Hygiene and Tropical Medicine, London, UK

ABSTRACT

Clinical relevance: In all countries, there are population groups that are underserved by eye health services. By exploring access to eye care for these communities, optometrists and other eye care providers can promote equitable access to quality eye care, including strengthening patient relationships, and championing inclusive, people-centred services.

Background: New Zealand has very few policies to enable access to primary eye health services. The aim of this study was to explore the barriers and facilitators to accessing eye health services among adults from an underserved community in Auckland.

Methods: A qualitative study was conducted using in-depth interviews, drawing on the domains of a widely accepted patient-centred framework for health care access. Twenty-five adults with vision impairment were recruited from a community-based eye clinic in a suburb with high area-level deprivation. Interviews were audio-recorded, transcribed verbatim, coded, and analysed using thematic analysis.

Results: Twenty-five participants were interviewed, aged between 47 and 71 years, of whom 13 were female. The participants included 13 Pacific people, 6 Māori, 4 New Zealand Europeans and 2 people of other ethnicities. Thematic analysis revealed five themes describing accessing eye care from a community perspective. Two major themes related to barriers were identified, financial barriers and barriers due to location of services and transport. The facilitators of access were, the ability of individuals to identify available eye health services, the provision of appropriate eye health services, and the crucial role played by whānau (family) in supporting participants to seek eye health services.

Conclusion: Cost is a major barrier to accessing eye health services in New Zealand. The barriers and facilitators expressed by this underserved community can inform efforts to improve eye health access in New Zealand through people-centred service designs.

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Introduction

In 2020, there was an estimated 43 million people who were blind, and 295 million people with moderate or severe vision impairment globally.[1] Given that vision impairment is more prevalent with age, combined with the expected population growth and ageing, by 2050 it is projected that these numbers will increase to 61 million and 474 million respectively; a further 866 million people will be living with uncorrected presbyopia.[1] Additionally, the social distribution of vision impairment is uneven, largely driven by disparities in access to eye health services, with Indigenous people, and marginalised communities more likely to experience worse eye health.[1,2] Therefore, there is a need to increase access to quality eye health services for everyone, with an emphasis on underserved population groups.[1,3]

In its inaugural World Report on Vision, the World Health Organization[2] called for countries to include eye health in efforts to achieve Universal Health Coverage.[4] The *Lancet Global Health* Commission on Global Eye Health reaffirmed this by providing compelling evidence that improving access to eye health services not only leads to improved eye health but also contributes to progressing several Sustainable Development Goals (SDGs) of the United Nations, including reducing poverty (SDG1), enabling work and economic growth (SDG8), and improving health and wellbeing (SDG3).[3]

Health disparities are ubiquitous in Aotearoa New Zealand[5] (hereafter referred to as New Zealand), however there is a scarcity of evidence on vision impairment and access to eye health services.[6] Subsidised primary eye care in New Zealand is limited, with government funding for optometry services, and treatment (spectacles or contact lenses) only available for small eligible groups (children from low-income families and people with high refractive error >10DS). There is no government funding available to support access to optometry services for older people.[7]

Furthermore, as there is limited information on access to eye health services in New Zealand, the situation is likely to be worse than other high-income countries such as Australia, where Medicare-subsidised eye care is universally available. Despite this availability of financial protection in Australia, disparities in access persist.[8] An area level analysis in Australia, revealed that access to eye health services was

CONTACT Jaymie T Rogers j.rogers@auckland.ac.nz
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approximately one-third lower in regions where the Indigenous population (Aboriginal and Torres Strait Islander people) was relatively high compared to areas with a lower Indigenous population.[9]

In New Zealand, the Ministry of Health recently launched the Pae Ora/Healthy Futures Act.[10] This act outlines a strong commitment to enhancing equity in health outcomes by working towards eliminating health disparities. The focus of this strategy is to address the health needs of New Zealanders, particularly Māori – the Indigenous people of New Zealand, Pacific people, and people living in areas of high deprivation. In New Zealand, the Deprivation Index is an area-based measure of socioeconomic deprivation which is derived from data including income level and employment status, and ranges from 1 (least deprived) to 10 (most deprived).[11]

Māori and Pacific people are disproportionately represented in areas of high deprivation.[12,13] In light of limited information on barriers and facilitators of access to eye health services in New Zealand,[14] the aim of this study was to qualitatively explore access to eye health services among adults from an underserved community in Tāmaki Makaurau/Auckland, (here after referred to as Auckland).

Methods

This study involved qualitative in-depth interviews of 25 adult participants residing in Glen Innes, which is a suburb in Auckland with high area-level deprivation (New Zealand Deprivation Index = 10).[15] A descriptive phenomenological approach was employed to elucidate the subjective experiences of participants and gather their insights into barriers and facilitators of access to eye health services.[16] To enhance quality and transparency, this study was reported using the Standards for Reporting Qualitative Research, (Supplemental annex 1).[17]

Ethics approval for this study was obtained from the Auckland Health Research Ethics Committee (reference AH22098). The study design was guided by Te Ara Tika (Māori research ethics) principles drawn from tikanga Māori (Māori protocols and practices).[18] This study is part of a broader community-based study involving Māori, the CONSIDER statement for reporting health research involving Indigenous people is available (Supplemental annex 2).[19]

To align with both Māori and Pacific cultural values, the research team partnered with Māori (Ngā Whātua Ōrākei) and Pacific representatives in community engagement. Their input into study design maximised participation of Māori and Pacific people. The research team included members who identify as Māori (MH, Ngāpuhi), Pacific Islander (TV), Southeast Asian (JTR), Nepalese (HK), Australian (JR) and New Zealand European (JB).

All team members were committed to a strengths-based approach to implementation of the study and interpretation of the findings. The presence of a Māori health researcher in the team ensured the research design and process was grounded in Indigenous and cultural knowledge. Several other team members have undertaken training in Mātauranga Māori – cultural responsiveness course, (JTR, TV, JR and JB). All team members will actively seek opportunities to disseminate the findings of the study and for these to be translated to action.

In-depth interview question design

The in-depth interview guide was structured based on a health care access framework by Levesque et al.[20] This framework outlines five access dimensions of services: approachability, acceptability, availability and accommodation, affordability, and appropriateness. It also highlights the corresponding ability of service users to facilitate access, such as the ability to perceive, seek, reach, pay, and engage.

The initial interview guide was drafted based on the guides used in previous studies.[21,22] It was reviewed by members of the research team (JTR, HK, MH, JR, and JB), and revised based on their feedback. Members of the research team have previously conducted qualitative research involving interviews (MH and HK).[22,23] The interviewer (TV) conducted a test interview, to evaluate clarity of wording, language, and ease of understanding, based on participant feedback, and to pilot test the procedure and technical process. Further refinement was made to the final in-depth interview guide (Supplemental annex 3).

Although all interviews were conducted in English, the interviewer (TV) was fluent in Tongan, so could translate specific words when Tongan participants ($n = 6$) needed further clarification. The research team discussed assumptions and beliefs throughout the project to maintain neutrality and value reflexivity. The interview guide consisted of broad questions, with probes to explore various factors which influence eye care access from a community and user perspective. The questions were open ended to reduce researcher bias.

Participant selection

Purposive sampling was employed to identify information-rich participants in a timely manner. These participants had varying levels of vision impairment, and several had prior experiences of facilitators and barriers, when accessing eye health services. Participants were identified from a broader community-based project that identified people with vision impairment via door-to-door screening. Participants were eligible if they resided in Glen Innes, were Māori or Pacific people aged 40 years or over, or other ethnicities aged 50 years or over, and they had presenting visual acuity in the better eye of worse than 6/12 for distance vision, and/or worse than N6 for near vision. These individuals were invited to undertake a full eye examination provided at a temporary eye clinic set up at a community centre in their neighbourhood.

Participants for this qualitative study were invited to take part during routine telephone calls to follow up on their eye examination. Participants who were interested were telephoned with further information. Participants were advised that participation in this study was voluntary and would not affect any future clinical care they may require. Consent was recorded either electronically or on paper (via postal mail), depending on the preference of each participant.

In-depth interviews

The interviews were conducted in English between February 2022 and June 2022. The in-depth interviews were all telephone-based, audio recorded, de-identified and transcribed verbatim by TV. A copy of the transcript was provided

to all participants to review, with a request for them to send any edits or clarifications back to the research team.

Data analysis

Data were coded and analysed using thematic analysis,[24] using Nvivo Release 1.6 (QSR International Pty Ltd). A combination of deductive and inductive approaches were applied in the analysis. The initial codes were obtained deductively using the Levesque framework.[20] New categories and themes were coded using an inductive approach as indicated by the data. The themes were identified based on the semantic meaning of codes, repetitions, and/or similarities or differences. This process facilitated an exploration of concepts or items of access which did not neatly fall into the five domains of access, outlined by the Levesque framework.[20]

The coding process was iterative, cycling through stages of coding and categorising the coded segments. Data collection and analysis occurred in stages. After every five interviews, the data were reviewed and analysed, highlighting repetitive themes. Participant recruitment stopped upon achieving thematic saturation, characterised by an absence of new issues and a repetition of existing themes.

The coding process was carried out by one team member (JTR) and reviewed regularly by team members (HK, MH, JB and JR) which included a review of the identified codes, patterns, interconnections among themes and descriptions of themes. Inconsistencies or disagreements were addressed through regular meetings until consensus was achieved.

Results

Thirty-one people were invited to partake in the study, of whom 25 completed the in-depth interviews; 13 (52%) were female, and age ranged between 47 and 71 years (median age of 59 years). The majority ($n = 13$, 52%) were Pacific people – being Tongan ($n = 6$, 24%), Samoan ($n = 4$, 16%), or Cook Islander ($n = 3$, 12%). The rest identified as Māori ($n = 6$, 24%), New Zealand European ($n = 4$, 16%), Chinese ($n = 1$, 4%), or Middle Eastern ($n = 1$, 4%).

Pacific people and Māori were over-represented in this study compared to national percentages from the 2018 census (8% and 17% for Pacific people and Māori respectively),[25] but the proportions do reflect the population in the Glen Innes area.[26] Data coding revealed five main themes (Table 1) and these are described with extracts from supporting quotes below (Table 2).

Theme 1: financial barrier to accessing eye health services

All participants contributed at least one response to the code 'affordability and cost' and many reported costs as a major barrier in seeking eye care (quotes 1–3). Over three quarters of participants said they would first consider their family financial budget to use eye care, and in some cases prioritise other financial needs before eye care. As quoted by a female participant, 56 years, Tongan 'our basic need, like food, paying our rent, electricity, etc., will be the priority' (quotes 4–6). Several participants reported seeking financial assistance for eye care, (code 'social welfare'). In New Zealand 'Work and Income' is a form of government social support, whereby people with low income or who are unemployed can access a loan to purchase their spectacles, (quotes 7–9).

Several participants felt the cost of eye care should be covered by the New Zealand government. They considered their eye health to be important and thought the government should provide financial assistance to all New Zealanders. As quoted by a female participant, 56 years, Samoan, 'I only hope the government can subsidise the cost and see the importance of eye health care to us and the community. We all deserve a good quality of life, especially constantly checking our eyes' (quotes 10–12).

Some participants felt it was more affordable to seek eye care from their General Practitioner (GP), rather than an optometrist. A few commented that they would see their GP first for eye problems and seek recommendations from their GP (quotes 13–15). Others took it upon themselves to purchase 'readymade spectacles' which are premade spectacles primarily used to correct near vision. They are relatively low-cost (NZ$5–$30) and widely sold in supermarkets, pharmacies, and variety stores. Several participants reported they could not afford custom-made spectacles which cost hundreds of dollars and so instead purchased readymade spectacles (quotes 16–17).

The code 'eye care through instalment payment' reflects comments from a small number of participants who said they would consider arranging instalment payments through the optometry practice to pay for eye care (quotes 18–20).

Theme 2: people can identify eye health services and value the importance of good eye health

Several participants identified the importance of eye health, and over two-thirds of participants reported seeking care from their GP. Several participants said they would first see their GP because they felt comfortable and familiar with the service, (code 'seek eye care from GP – familiarity of service', quotes 21–23).

A quarter of the participants reported awareness of optometric services and said they would seek care from an optometrist if they had an eye problem, (code 'awareness of optometric services', quotes 26–28). One in five participants said they had previously used eye health services. A small number of these participants had used eye care due to a workplace injury, or an eye condition that required ongoing care (quotes 29–30).

Table 1. Main themes on barriers and facilitators of access to eye health services among adults from an underserved community in New Zealand.

Theme number	Theme	Number of coded segments
1	Financial barrier to accessing eye health services	134
2	People can identify eye health services and value the importance of good eye health	63
3	People receive eye health services appropriate to their health needs	45
4	Limited transport and location barriers to accessing eye health services	44
5	Vital role of whānau in seeking eye health services	38

Table 2. Themes, categories, and representative extracts from transcripts of in-depth interviews on barriers and facilitators of access to eye health services among adults from an underserved community in New Zealand.

Theme	Categories (number of coded segments)	Example of supporting quotes (gender, age, ethnicity)
1. Financial barrier to accessing eye health services	Affordability and cost (61)	1. 'It is very much the cost is the main factor to meet the fees and purchase the prescribed pair of glasses'. Female, 52 years, Māori 2. 'The main factor that influences our decision to purchase the glasses, either for me or a family member will be the cost'. Female, 56 years, Tongan 3. 'We cannot afford the fees to visit the optometry, let alone purchasing these glasses'. Male, 59 years, Cook Island
	Financial capacity to use eye health services (28)	4. 'We need to put bread on the table for our family to eat first. In this case, family need to be fed, then glasses come later'. Male, 64 years, Māori. 5. 'Our family monthly budget. We need to meet our basics, like food, etc., before we consider the purchase of the glasses'. Female, 64 years, Samoan 6. 'Our basic need, like food, paying our rent, electricity, etc., will be the priority'. Female, 56 years, Tongan
	Social welfare (18)	7. 'We might look at other avenues, such as Work and Income if they can help'. Female, 50 years, New Zealand European 8. 'I went to the Optometrist only because Work and Income paid for all the expenses'. Male, 59 years, Cook Island 9. 'We will check the prices and with Work and Income, if they assist in purchasing the glasses'. Male, 67 years, Māori
	Universal eye care (12)	10. 'I think accessing eye health care services is very vital to our people and community. I want the government to assist in making this accessible so that people like myself will have a chance to check our eyes'. Male, 67 years, Māori 11. 'Our people's health is very important, therefore the costs for this health service should be reduced or subsidised by government'. Female, 65 years, Samoan 12. 'I only hope the government can subsidise the cost and see the importance of eye health care to us and the community. We all deserve a good quality of life, especially constantly checking our eyes'. Female, 56 years, Samoan
	Seek eye care from GP, as perceived more affordable than optometrist (7)	13. 'I will first go to my family doctor for his advice. This is because it is cheaper to visit a GP rather than optometrist'. Male, 69 years, Tongan 14. 'I will go to my GP and seek care. My doctor's visit fees are affordable, and it will depend on his recommendation to direct me further'. Male, 61 years, Samoan 15. 'The cost is also another reason why I go to my GP [and not to the optometrist]'. Male, 64 years, Māori
	Readymade spectacles (5)	16. 'When people cannot read anymore and do not have access to this health services, they look for alternatives for example – they will go to the $2 shops and purchase a pair of glasses, so that they can continue with everyday activities'. Female, 52 years, Māori 17. 'Although my eyes are important, I can still go to the $2 shop and get one [readymade spectacles], as prescribed glasses are so expensive'. Female, 59 years, Tongan
	Eye care through instalment payments (3)	18. 'We know our eyes are very important, so we must look at an alternative e.g., save money towards this purchase, or arrange for monthly repayments'. Female, 54 years, Māori 19. 'However, it is important to purchase these glasses as our vision is very important. I will look at other avenues, I will ask the optometrist if I can pay weekly/fortnightly'. Male, 56 years, Samoan 20. 'We will also look at other avenue if we can do instalment payments to purchase the glasses. This is because our vision is very important to us'. Male, 47 years, Tongan
2. People can identify eye health services and value the importance of good eye health	Seek eye care from GP – familiarity of service (30)	21. 'If my eyes got problems, I would seek help from my doctor. I am familiar with my doctor than going to an optometrist. Also, it is cheaper to seek doctors advise because optometrist is very expensive to visit'. Male, 61 years, Samoan 22. 'I will go to the doctor for his advice, and this is because I am quite comfortable when I experienced a health issue, I always check with my GP first'. Female, 54 years, Māori 23. 'I will discuss my vision with my GP, the problem etc. The doctor can provide me with information and how to get appointments. I always go to the doctor if I have any health issue'. Female, 65 years, Māori
	Unaware of optometric services (11)	24. 'I do not know much about the eye health services; in fact I haven't been to an optometrist to experience their services'. Female, 65 years, Samoan 25. 'I need more information about the visits and glasses fees'. Female, 50 years, New Zealand European
	Aware of optometric services (8)	26. 'Many people have problems and issues with their vision. There is a need of this service in our community'. Female, 51 years, New Zealand European 27. 'I will seek care if I have any problems with my eyes, in fact I haven't been to an optometrist'. Female, 50 years, New Zealand European 28. 'With problems with my eyes, I will go to the optometrist'. Female, 56 years, Samoan
	Previous use of eye health services (8)	29. 'If I have problem with my vision, I will seek care to an optometrist. I had been to one before'. Female, 59 years, Tongan 30. 'I need to seek care as my eyes are badly affected from the kind of work that I did. Auckland hospital had been good to me with all my check-up and treatments'. Male, 68 years, New Zealand European

(*Continued*)

Table 2. (Continued).

Theme	Categories (number of coded segments)	Example of supporting quotes (gender, age, ethnicity)
	Value importance of good eye health (6)	31. 'We need healthy eyes to live a good life'. Female, 60 years, Cook Island 32. 'Our eyes are very important for us, and we need to keep on checking regularly'. Female, 51 years, New Zealand European 33. 'Accessing eye health services is very important for everyone'. Female, 70 years, New Zealand European
3. People receive eye health services appropriate to their needs	Communication (16)	34. 'The services provided by the optometrist was excellent. The optometrist explained step by step of what they are going to check with my eyes'. Male, 64 years, Māori 35. 'The service was very satisfying as they explain to me the results of my eye check. Also, they emphasised how important to check my eyes every two years'. Female, 65 years, Samoan 36. 'They took their time to explain everything in detail. I felt very comfortable'. Female, 56 years, Tongan
	Friendly service (7)	37. 'I was extremely satisfied with the services; optometrists were friendly and very helpful'. Male, 58 years, Tongan 38. 'People were very friendly, and services was above our expectation'. Female, 56 years, Tongan 39. 'People were friendly, I can feel a personal relationship with everyone. It was a friendly environment. This really encouraged me to visit the optometry very often'. Female, 70 years, New Zealand European
	Positive experience and satisfaction (16)	40. 'The services that I received from the optometrist was extremely satisfying. They were very helpful and checked my eyes thoroughly'. Male, 56 years, Māori 41. 'None of my family members had been to an optometrist, but I talked to them about my visit. I want to encourage them to go and check their eyes'. Male, 67 years, Māori
	Effective treatment (6)	42. 'My glasses are working very well, and I am very happy'. Female, 60 years, Cook Islands 43. 'I am very happy that I got involved in your program and got my glasses. I am using it every day to drive'. Female, 65 years, Samoan 44. 'Getting my eyes tested thoroughly and prescribed with the right pair of glasses, is the best thing that ever happened to me'. Male, 61 years, Samoan
4. Limited transport and location barriers to accessing eye health services	Location (13)	45. 'To be convenient, we should have an optometrist in our area, one close to home so that we do not have to travel far'. Female, 56 years, Samoan 46. 'But we would prefer to have one at Glen Innes, where we live to easy access with our whānau'. Male, 64 years, Māori
	Transport – requires support (10)	47. 'I have no car but will ask any of my family who is available to take me to my appointment'. Female, 52 years, Māori 48. 'To attend an appointment, I need to know it ahead of time so that I can arrange for someone to take me there, as I don't drive. My husband or one of my children will take me to my appointment because it is important to me'. Female, 56 years, Tongan 49. 'Unless if any of my children is available to drive me. I also can ask my friends or use a taxi'. Male, 67 years, Māori
	Importance of eye health and attendance (10)	50. 'My appointment is important for me as my eyes are very valuable that I do not want to go blind'. Male, 56 years, Māori 51. 'To attend an appointment is very important, especially for my eyes'. Female, 48 years, Tongan 52. 'My vision is so important to me so I must make every effort to attend my appointment time'. Female, 51 years, New Zealand European
	Car Park fees (8)	53. 'There are factors that would affect my ability to attend an appointment, such as transportation, car parking fees'. Male, 58 years, Cook Island 54. 'So far, the only factor that affect me to attend an appointment is the parking fees at the eye hospital, which is quite expensive for me'. Male, 68 years, NZ European 55. 'I will also check if there is a free parking around the place, if not I must make sure I have enough money to pay for parking. They are the factors that would affect my ability to attend my appointment'. Female, 48 years, Tongan
	Public transport (3)	56. 'I do not own a car. I use the public transport all the time'. Male, 67 years, Māori 57. 'It is very handy to go in the bus for my appointment'. Male, 56 years, Māori 58. 'I also know the bus route to the hospital, so if I do not have to drive to the hospital, I can take the bus'. Male, 68 years, New Zealand European
5. Vital role of whānau in seeking eye health services	Whānau centred decision making (16)	59. 'In my case it would be my whānau/family would determine whether to seek care'. Male, 64 years, Māori 60. 'My family will decide to purchase the glasses'. Male, 71 years, Chinese 61. 'We always work together as a family to decide what's best for our family, especially when it comes to health issues. Our life is very important to us'. Male, 47 years, Tongan
	Community eye care (16)	62. 'I think children in Aotearoa should have free access to optometry or may be reduce the cost, so that we can all visit optometry as our eyes are very important'. Female, 51 years, New Zealand European 63. 'For eye health to meet the need of my family, they [New Zealand government] should make it accessible to our family and community'. Male, 58 years, Cook Island 64. 'The eye health services in NZ need to be accessible to any community, and cost should be affordable to our people'. Male, 69 years, Middle Eastern

(*Continued*)

Table 2. (Continued).

Theme	Categories (number of coded segments)	Example of supporting quotes (gender, age, ethnicity)
	Personal autonomy (6)	65. 'There are no family, community or cultural factors that affect my decision to seek care. I will make the decision that's best for me and my health'. Female, 70 years, New Zealand European 66. 'The decision to seek care will totally depend on myself, because it is about me and my health'. Female, 48 years, Tongan 67. 'There is no factors that hinder my seeking care. I make my own decision about my health'. Female, 64 years, Samoan

GP = General practitioner.

When asked, several participants reported never having had an eye examination with an optometrist previously. Many participants were unaware of optometric services and wanted further details of what was involved in an eye examination (quotes 24–25).

The data showed that eye health services were 'approachable', as several people could identify that optometry services existed and understood the importance of good eye health. Several participants expressed the importance of eye health as part of having a good life and well-being (quotes 31–33).

Theme 3: people receive eye health services appropriate to their health needs

Participants highlighted that eye health service providers should be able to treat eye conditions in an appropriate manner, respecting patient dignity. Many participants liked that the optometrist communicated clearly and explained procedures and clinical findings thoroughly (quotes 34–36). Several participants felt encouraged to seek eye care because clinic staff were friendly and welcoming (quotes 37–39). The service was found to be engaging and provided reassurance about their eye health, (code 'positive experience and satisfaction', quotes 40–41).

As quoted by a male participant, 56 years, Māori 'the services that I received from the optometrist was extremely satisfying. They were very helpful and checked my eyes thoroughly' (quote 40). Several participants reported satisfaction with their prescribed spectacles and felt this completed their overall experience. They received a service that met their needs and encouraged them to be aware of the benefits of regular eye examinations (quote 42–44).

Theme 4: limited transport and location barriers to accessing eye health services

Most participants reported factors such as location, transport, and indirect costs associated with transport affecting access to eye care. There was a preference for services located closer to home (quotes 45–46), and several participants reported having to travel to other areas for eye care. The need to arrange transport was a common theme. Participants sought assistance from whānau (immediate or wider family) for transport to reach eye care (quotes 47–49).

Although participants reported barriers in reaching care, the 'importance of eye health and attendance' was highlighted by participants. The fear of going blind and the importance of vision in everyday activities encouraged them to attend appointments (quotes 50–52).

Fees for parking reduced the ability to reach care. As quoted by a male participant, 68 years, New Zealand European, 'so far, the only factor that affect me to attend an appointment is the parking fees at the eye hospital, which is quite expensive for me' (quotes 53–55). Several participants relied on public transport to reach eye care (quotes 56–58).

Theme 5: vital role of whānau in seeking eye health services

Many participants expressed the vital role of whānau in health-related decision-making. This reflected the importance of social and cultural factors in influencing how health services are accessed. Almost half the participants reported a whānau orientated process when seeking care and often health-related decisions were made as a group rather than by an individual (code 'whānau centred decision making', quotes 59–61). Several participants felt that eye health was important, and services should be accessible and affordable to their communities (quotes 62–64).

Although many participants made health-related decisions with whānau, others reported the decision was their own. This was reflected by responses coded to 'personal autonomy', where the decision to seek care was their own choice, not affected by family or cultural factors (quote 65–67).

Discussion

Using a widely accepted framework of patient-centred health care access,[20] in-depth interviews were conducted to explore barriers and facilitators of accessing eye health services for adults from an underserved community in Auckland. Five themes were identified, including two relating to barriers and three relating to facilitators. The most prominent theme identified was the financial barrier to accessing eye health services, with limited transport and location barriers identified as further obstacles.

Conversely, the identified facilitators were that people can identify eye health services and value the importance of good eye health, people receive eye health services appropriate to their health needs and the vital role of whānau in seeking eye health services.

Cost as a barrier to eye care identified in this study mirrors the evidence – in New Zealand and internationally – on cost as a barrier to accessing primary care services, such as GPs.[27,28] For example, in the 2020 New Zealand health service access survey, 17% of respondents reported cost as the reason for not visiting a GP when they needed health care,[29]

which is unchanged from surveys in 2016 and 2013.[30,31] The implications of forgoing healthcare can have negative health consequences, including in New Zealand, where patients who deferred primary and dental care due to financial obstacles, were more likely to experience poor mental health and self-rated health.[28]

Limited transport was another barrier commonly voiced by participants, that inhibited their ability to reach care. The finding that people often depend on whānau when faced with transport barriers has been reported in other studies.[32,33] While having this carer support is beneficial and can help people reach care, in some cases whānau or care providers may have limited capacity or resources to provide assistance.[32,33] Beyond transport, participants reported encountering practical barriers such as inconveniently located parking and services, mirroring findings from an Australian survey focused on improving service accessibility for hospital outpatients.[34]

Several facilitators of access were expressed by participants, including that people can identify eye health services and value the importance of good eye health. This theme reflects the concept of approachability outlined by Levesque and colleagues, where people perceive healthcare needs based on their awareness of care and service availability.[20] Participants reported commonly seeking eye care from their GP, rather than a dedicated eye care provider, possibly influenced by familiarity of the service and their established relationships.

To improve community awareness, eye health service providers can implement strategies to engage and empower individuals to use eye health services, which may include integration with other health services. Examples from Australia and elsewhere shows the benefit of regional eye health coordinators and community health workers in increasing service uptake among people from underserved communities with diabetes,[35,36] likely due to their cultural knowledge, and strong community connections, enabling them to connect health services and the community.[36] In New Zealand, community navigators (individuals or groups who assist people, particularly those from underserved communities, in accessing healthcare services and resources), have improved engagement with primary care services among people living with cancer.[37]

The theme, people receive eye health services appropriate to their health needs, emphasises the importance of building relationships and fostering positive interactions between healthcare providers and patients, which strengthen culturally responsive healthcare practices.[38] While good communication and relationship building between patients and providers is an essential component of good quality health care, it is particularly important for population groups chronically underserved by the health system, including Māori and non-dominant ethnic groups who must engage with a health system not built by or for them.[39–41]

The value of good communication to improve engagement with health care was highlighted in a study assessing perspectives of Māori on colorectal cancer screening programs, where participants reported feeling empowered when clinicians explained procedures without jargon and provided them the opportunity to ask questions, enabling informed decision-making.[42]

Several participants expressed that whānau were vital in seeking eye health services and when making health-related decisions. Whānau often function as intermediaries between healthcare services that aren't always culturally responsive and the actual care required to meet the health needs of communities.[40] Despite their important facilitatory role, evidence suggests whānau often feel devalued by health professionals.[43] Additionally, it must be acknowledged that whānau support comes at a cost, as whānau may sacrifice both time and money to support healthcare visits. The emphasis on whānau support, as expressed by participants, underscores the principle of people-centred eye care delivery, emphasised in the World Report on Vision.[2]

The identification of cost as a major barrier in accessing eye care in an underserved community is not unexpected, particularly as New Zealand has limited government funding for optometry services.[7] The findings presented here provide a compelling case for government funding of optometry services for older adults, to place particular emphasis on people living in areas of high deprivation.[7,14] Furthermore, implementing policies that promote eye care service delivery in underserved and remote communities could alleviate location and transport barriers. Potential strategies could include funding for mobile eye clinics or transportation subsidies for patients.[39]

The identified facilitators of access highlights the need for healthcare providers to foster inclusive and culturally responsive healthcare practices through effective patient-practitioner communication.[38] This approach contributes to efforts towards fulfilling the principles of Pae ora/Health Futures act – to improve health equity for all.[10]

Unfortunately, there is limited evidence in New Zealand on strategies to promote access to eye care for underserved communities.[39,44] Further research is needed to fill the evidence gap on effective interventions and collaborative strategies to improve access to eye health services for underserved communities. One such strategy would be the development and evaluation of optometry cultural safety programmes in partnership with community members to ensure the programmes are grounded in real experiences of diverse communities.[44]

These findings must be considered in the context of several limitations, with the main one being that the themes expressed by participants may not be generalisable to all New Zealanders, including all priority groups. While the proportion of ethnicities recruited do not reflect the most recent national Census data,[25] the study purposely included the priority groups in Pae Ora (being Māori, Pacific people and people living in areas of high deprivation).[10]

Further, the study was conducted within an area of high deprivation where cost is understandably a major deterrent to seeking eye care; consequently, this may not capture perspectives of patients who have no financial constraints and are able to seek eye care in the private sector.

The study did not include children or younger adults, who may face different barriers to the adults included here. Although these findings may not be directly applicable to the broader population, they provide valuable insights into the barriers and enablers among adults from underserved communities, who are likely the largest group of people currently being excluded from eye health services in New Zealand.

Conclusion

For New Zealand to realise its aspiration of improving equitable health outcomes for all New Zealanders, access to eye

health services must be improved. This study underscores the prominent role of cost as a barrier to accessing eye health services among adults in an underserved community. Recognising this, it is essential for policy makers to formulate strategies to mitigate this challenge and provide financial protection for people otherwise unable to access eye care. Furthermore, these findings prompt further research to develop and test interventions to improve access to eye care for underserved communities.

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ORCID

Jaymie T Rogers http://orcid.org/0000-0003-2415-8198
Himal Kandel http://orcid.org/0000-0002-6745-6411
Matire Harwood http://orcid.org/0000-0003-1240-5139
Telusila Vea http://orcid.org/0000-0002-0688-0833
Joanna Black http://orcid.org/0000-0002-5100-8796
Jacqueline Ramke http://orcid.org/0000-0002-5764-1306

Ethical approval

Ethics approval for this study was obtained from the Auckland Health Research Ethics Committee (AHREC reference AH22098).

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