

ORIGINAL ARTICLE

‘Whatever the GP says, is what I'll do’—A qualitative study of patient perspectives in accessing primary eye care for type 2 diabetes

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Abstract

Introduction: To investigate the perspectives of people accessing a general medical practitioner (GP)-optometry model of collaborative care that was established to increase access to diabetes eye care.

Methods: Qualitative study of patient barriers and facilitators to accessing primary diabetes eye care located in a metropolitan area in Australia. One-on-one interviews were recorded, transcribed and thematically analysed using a determinant framework on patient-centred access to health care.

Results: Twenty-four people with type 2 diabetes, including 15 males and 9 females, who accessed the service between September 2021 and June 2022 agreed to participate. Mean (SD) age of the participants was 52 (12) years and 50% had been diagnosed with diabetes for <2 years. Facilitators to accessing diabetes eye care included a referral from a GP or GP nurse, fee-free consultations, availability of after-hours appointments and short waiting times. Barriers to access included perceived out-of-pocket costs, competing responsibilities and lack of awareness of diabetic retinopathy screening recommendations.

Conclusion: Considering diabetic retinopathy may present asymptotically, primary health practitioners (optometrists and GPs) are well positioned to raise patient awareness of the importance of routine eye examinations. In Australia, access to routine screening could be facilitated by fee-free eye checks and personalised text message reminders implemented at a health system level.

KEYWORDS

collaborative care, diabetic retinopathy, healthcare access, primary care, qualitative study

INTRODUCTION

Diabetes affects an estimated 8%–10% of adults globally.¹ About one in three people with type 2 diabetes will develop diabetic retinopathy,² a major cause of vision loss.³ Regular screening to facilitate early detection and timely treatment of vision threatening disease are key to preventing

visual morbidity.⁴ In Australia, it is recommended that a comprehensive eye examination is conducted upon diagnosis with type 2 diabetes, with reviews at least once every 2 years.⁵ This review interval may be shorter dependent on the severity of retinopathy and patients' additional risk factors, such as longer disease duration or poor diabetes control.⁴ Yet, access to comprehensive eye examinations

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at the recommended intervals is suboptimal (50%–75%) in Australia, with lower adherence (21%–28%) observed in people who have had diabetes for ≥ 10 years.⁶

Collaboration between health care practitioners to integrate pathways for care can improve access to services.⁷ In Australia, general medical practitioners (GPs) coordinate diabetes management through the completion of the diabetes annual cycle of care. As primary eye care practitioners, Australian optometrists are well-placed and skilled to perform comprehensive eye examinations for people with diabetes. Through Australia's universal health insurance scheme (Medicare), optometrists are remunerated to perform dilated fundus examinations for people with diabetes, but some may charge additional fees for services, such as retinal imaging. A study of patients who accessed a collaborative eye care service in Sydney, Australia, found that over 40% reported a cost-related barrier to accessing optometric and general health care.⁸

Typically, collaborations between GPs and optometrists for managing people with diabetes are informal and ad hoc in nature—whereby GPs provide a written referral or a verbal recommendation for patients to seek eye care. Collaboration may also be formalised by GPs through team care arrangements or chronic disease GP management plans, which are also financially supported by Medicare. Currently, little is known about horizontal collaborative care arrangements that exist in primary care and how successful these arrangements are in supporting clinicians and patients to adhere to eye care recommendations for people with type 2 diabetes.

As part of a local initiative (Western Sydney Diabetes),⁹ a collaborative care model was established between local GP practices and an optometry practice in Western Sydney, to support patients with diabetes to reach eye examinations in their local area. Western Sydney Diabetes⁹ is an alliance of government, private and not-for-profit organisations, working towards reducing the impact of diabetes in the local community. Patients with newly diagnosed or established type 2 diabetes were referred by a GP or GP nurse to a partnering optometry clinic for a comprehensive vision and eye assessment. This arrangement is already in place in some clinics informally; however, this does not happen at scale.

This study investigated the perspectives of patients with diabetes on recent experiences of accessing eye care and explored the perceived barriers and facilitators for access to diabetes-related eye care in the future.

METHODS

Qualitative approach and research paradigm

Informed by a determinant framework on patient-centred access to health care (see below),¹⁰ a qualitative study was conducted to explore barriers and facilitators to accessing eye care in a collaborative care model in the primary care setting.

Key points

- Facilitators to diabetes eye care in people with type 2 diabetes include referral from their general medical practitioner or nurse, free screening service, short waiting times and after-hours appointment availability.
- Collaboration between general medical practitioners and optometrists to integrate pathways for eye care may improve adherence to national guidelines for diabetic retinopathy by ensuring regular access to screening and comprehensive assessment.
- In patients with type 2 diabetes who desire more education on self-management, optometrists may assist by communicating this to their general medical practitioners or diabetes educator.

Setting and model of care

This study was conducted in a metropolitan Western Sydney region, with a culturally and linguistically diverse population in New South Wales, Australia (Table S1) that has significantly above average odds of diabetes mellitus.¹¹ The investigated collaborative primary eye care model was established in consultation with optometrist and GP partners, in alignment with the Western Sydney Diabetes initiative's mission of improving interprofessional collaboration and integrating care across health services.⁹ This partnership recognises GPs' central role in coordinating care and the optometrist's role in eye care delivery for people with diabetes in accordance with professional clinical practice guidelines.^{5,12} Access to eye care was facilitated by a referral from the GP to the optometrist, in line with the recommended time intervals as per the Royal Australian College of General Practitioners Guidelines.⁵ Patients were examined by an optometrist and managed in accordance with national guidelines for diabetic retinopathy (National Health and Medical Research Council and Optometry Australia).^{4,12} Eye examinations were subsidised by the Australian Government through Medicare, with no out-of-pocket costs for patients. Results of the eye examination were reported by the optometrist via letter to the referring GP, and patients requiring secondary/tertiary care were referred by the optometrist for further management.

Participant sampling and recruitment

People with type 2 diabetes, aged 18 years and over, who accessed the collaborative model of care between September 2021 and June 2022, and had sufficient English language skills were eligible to participate. Potential participants who expressed interest to optometry clinic staff were then contacted by a research team member

by telephone. Members of the research team were not involved in any aspect of care delivery and were not known to participants prior to enrolment in the study.

Data collection and analysis

One-on-one interviews were conducted over the telephone, voice recorded and transcribed verbatim by four authors (AP, AK, JH and JHL, see [Researcher characteristics](#) below). Participants were interviewed only once. Interview transcripts were imported into NVivo (version 12, QSR International, lumivero.com/products/nvivo) and were independently coded by two researchers (JHL and AR, see [Researcher characteristics](#) below). Transcripts were initially coded in a deductive manner using domains from the framework on patient-centred access to health care,¹⁰ then further identified barriers or facilitators to care. Two researchers (AR and JHL) met on six occasions throughout coding and discussed the coding scheme including the emerging themes. Disagreements were resolved through discussions. We estimated that at least 12 interviews would be required to reach data saturation.¹³ While no specific criteria were defined for data saturation prior to data collection and analysis, after analysing the 19th interview, no new codes were generated in subsequent interviews; hence, data saturation was considered. Participant characteristics including age, sex, duration of diabetes and diabetic retinopathy grading were extracted from the clinic records in the optometry clinic.

Researcher characteristics

At the time, AP, AK and JH were students undertaking a research project during their final year of university training in optometry and all had prior experiences interacting with patients in a clinical setting. The students were trained by JHL as to how to recruit participants, obtain informed consent, conduct and record interviews using an interview guide, prior to data collection to ensure consistency. JHL is an optometrist and post-doctoral researcher, with a special interest in health services research. AR is a Bachelor of Psychology/ Health Sciences graduate and research assistant with experience in qualitative research.

Framework on patient-centred access to health care

The framework by Levesque et al.¹⁰ was chosen for thematic analysis because it provides a comprehensive synthesis of the published literature on determinants for access to health care from multiple perspectives including the health system, health service and person levels. It comprises five dimensions of accessibility related to the health system or service: approachability, acceptability, availability and accommodation, affordability and appropriateness; with five

corresponding person abilities to generate access, ability to perceive, seek, reach, pay and engage. This study focused on the person and health service determinants of access.

Standards for reporting qualitative research

In reporting this research, we adhered to COnsolidated criteria for REporting Qualitative research (COREQ) to ensure the transparency and completeness in presentation of study findings.¹⁴

RESULTS

Of the 70 people who met eligibility criteria and agreed to being contacted via telephone for the research, 36 could not be reached after three attempts. Of the 34 people who were contacted, 10 declined to participate. There was no significant age (two-tailed *t*-test, $p=0.69$) or sex (chi-square test, $p=0.43$) differences between people who participated ($n=24$) and did not participate ($n=46$). The mean duration of interviews was 17 minutes (standard deviation [SD]: 7; range: 7–37 min).

Participant characteristics

Participants had a mean (SD) age of 52 (12) years, and most were male ($n=15/24$), see [Table 1](#). All participants had type 2 diabetes, with the duration of diabetes ranging from <1 to 25 years. Half of the participants ($n=12/24$) were first diagnosed within the past 2 years. Based on the optometry clinical record review, 19 participants had no signs of diabetic retinopathy, one participant had mild non-proliferative diabetic retinopathy and four had moderate non-proliferative diabetic retinopathy. None of the participants were diagnosed with macular oedema or proliferative diabetic retinopathy. No participants required further management by an ophthalmologist.

Barriers and facilitators to patient-centred access to health care

Barriers were identified across four of five person-related dimensions of abilities: ability to perceive, ability to reach, ability to pay and ability to engage. Facilitators were identified in four of the five corresponding dimensions of accessibility of services: approachability, availability, affordability and appropriateness.

Ability to perceive/approachability

Facilitators

In most cases, the person's ability to perceive their need or desire for care was mediated by a referral by a GP or

TABLE 1 Participant characteristics.

Participant ID	Age (years)	Sex	Diabetes duration (years)	Snellen visual acuity, worse eye	Diabetic retinopathy grading, worse eye
1	30	Male	1	6/6	None
2	33	Male	1	6/6	None
3	36	Male	2	6/6	None
4	38	Male	1	6/6	None
5	43	Male	1	6/6	None
6	44	Male	1	6/7.5	None
7	45	Female	<1	6/6	None
8	46	Female	7	6/6	None
9	46	Female	<1	6/6	None
10	48	Male	18	6/6	Moderate
11	48	Male	16	6/6	None
12	52	Female	13	6/6	Mild
13	53	Male	1	6/6	None
14	54	Female	1	6/6	None
15	55	Male	<1	6/6	None
16	56	Male	25	6/6	None
17	57	Male	6	6/6	Moderate
18	62	Female	5	6/6	None
19	62	Male	20	6/6	None
20	66	Female	1	6/6	None
21	67	Male	1	6/6	None
22	69	Female	12	6/6	Moderate
23	69	Male	3	6/7.5	None
24	70	Female	20	6/12	Moderate

GP nurse. For most of the participants, a referral from a health care provider was the reason they went for an eye examination.

The doctor that referred me... She started a plan and that is the only reason why I went to do it. Something to do with diabetes.

(45 years, female, <1 year diabetes duration, no diabetic retinopathy [DR], participant 7)

Without a health practitioner initiating a referral, some patients may not have perceived the need for an eye test,

To be honest, my diabetes nurse from the medical centre consulted me and helped me see them. I didn't know diabetes affected the eyes that much, so the education that they provided was very helpful. No one told me that you need to have my eyes checked because of diabetes. It was her who told me I needed to get it checked out.

(36 years, male, 2 years diabetes duration, no DR, participant 3)

For many participants in this study, the GP was the first point of contact for eye care. When asked, 'If you had an eye problem, who would you get advice from?', 15 of 24 participants said that they would approach their GP initially.

First thing, I'll go to the GP, ask him what is the next step? Should I go to an optometrist, or should I go to a specialist? Whatever he says, is what I'll do.

(53 years, male, 1-year diabetes duration, no DR, participant 13)

A smaller proportion of participants ($n=9$) reported that they would approach an optometrist initially for advice on an eye problem, particularly those who had previously attended an optometrist for reasons other than a diabetes eye examination.

Barrier

A potential barrier to accessing routine examinations was the perception that incident eye disease would be accompanied by symptoms, such as the onset of blurred vision and vision loss or eye pain.

Participant: There's this optometrist that I knew for years because I lived in that area... but I didn't go for check-up... *Interviewer: Was there something that stopped you from going?* Participant: No, because I didn't feel anything wrong with my eyes. I didn't feel there's any problems.
(66 years, female, 1-year diabetes duration, no DR, participant 20)

Ability to reach/availability

Facilitators

Flexibility of appointment times, particularly after-hours and weekend appointments, was important for people in paid employment.

I'm normally working so I schedule my appointments after 4 o'clock or on a Saturday. Appointment time is the most important to me.
(62 years, male, 20-year diabetes duration, no DR, participant 19)

Additionally, immediacy of services was a further consideration when deciding where to access care,

If I had to wait 3 weeks, I wouldn't wait... I'll go somewhere where I can be seen quickly.
(54 years, female, 1-year diabetes duration, no DR, participant 14)

Barriers

While some participants reported no barriers to reaching care, "If I need to, I'll go... I'm happy to take time off work." (36 years, male, 2-year diabetes duration, no DR, participant 3); other participants found it difficult to find the time due to competing priorities of work and caring responsibilities.

Just being so busy with so many things happening. With my two kids... taking care of them, driving them around never getting around to doing my own stuff.
(44 years, male, 1-year diabetes duration, no DR, participant 6)

I am working 7 days a week, 10–12 hours day. Breakfast is luxury, and lunch is whenever you can get, and most of the time, dinner is on the way home. I come home and I just sleep... I know it's not good for my eyes and not good for my diabetes. But you don't pay bills without a job do you? At the moment, I'd rather have a job and be able to afford my medications. I have no time.

(48 years, male, 18 years diabetes duration, moderate DR, participant 10)

For some participants, the geographical location of the optometry service was not considered convenient, "If I can get appointments closer to home, I'd rather go closer to home than going out of the area." (54 years, female, 1-year diabetes duration, no DR, participant 14). Others needed accessible parking, "Parking is also an issue for me, if there is no parking then I will not go." (62 years, male, 20-year diabetes duration, no DR, participant 19). Being co-located and integrated with other health care providers was perceived to facilitate access and integrate diabetes management.

The only thing is that when seeing my diabetic specialist if I could also have my eye testing done there as well prior. So that she can talk to me about the condition of my eyes.

(38 years, male, 1-year diabetes duration, no DR, participant 4)

Other barriers reported by a few participants included the need for a support person to accompany them during the eye examination or to drive them home after the test (due to side effects of pupil dilating eye drops).

Ability to pay/affordability

Facilitator

Generally, whether the clinic offered fee-free eye care services was considered important when accessing care. The ability to pay out of pocket costs for eye care varied according to the individual's financial situation. Many valued fee-free eye testing, where the service fee was fully paid by the government (Medicare), "I'm a pensioner... It really helps." (52 years, female, 13-year diabetes duration, mild DR, participant 12).

Barrier

Out-of-pocket costs for preventative eye testing were a perceived barrier for future testing that may lead people with diabetes to delay routine care in the absence of symptoms.

If you have a real problem you will pay, you will think this is my health, you will have to pay... [but] I just thought, 'I'm okay, why should I go?' If I have to pay, I will go next year instead of this year. If it's free just say, 'I'll go anyway, its free'. Money (is) always a problem for people not working.

(66 years, female, 1-year diabetes duration, no DR, participant 20)

If there was a perceived need for care, out-of-pocket costs for eye care were considered acceptable by some participants. However, participants felt it was important that any fees associated with care are advertised transparently and upfront. One participant reflected on a previous negative experience,

When I don't know what I am expected to pay. I want to be prepared with what I am getting. Not to find out on the day all the extra little charges that they are throwing.

(45 years, female, <1-year diabetes duration, no DR, participant 7)

Although the prescription of spectacles is separate from diabetic retinopathy screening, a few participants perceived the two aspects of eye care as intertwined. Some participants said they would consider delaying access to diabetes-related eyecare if they could not afford to purchase new spectacles.

Ability to engage/appropriateness

Facilitators

As the framework suggests,¹⁰ positive eye care experiences and rapport with providers are important first steps to support a person's ability to continue to engage with eye care in the future. Participants reported positively on the optometrist's interpersonal qualities in relation to their intention to continue accessing eye care, "I found him to be a lovely human being. So, I probably wouldn't stray from him now." (46 years, female, <1-year diabetes duration, no DR, participant 9). Participants who had limited experiences with diabetes eye care particularly valued the time taken to provide explanations about the eye examination procedures, "I see he's very calm, he explains what he's doing as he's doing it to make you relaxed." (54 years, female, 1-year diabetes duration, no DR, participant 14). Technical expertise and professional reputation were also valued by participants and may positively influence in their future engagement with eye care, "He does (the) eye test pretty thoroughly... and he's got a very good reputation from the community." (52 years, female, 13-year diabetes duration, mild DR, participant 12).

To facilitate ongoing care, most participants agreed that reminders, particularly text messages, would be helpful to prompt them to schedule an appointment for an eye examination and prior to their scheduled appointment,

More regular reminders would be good. Text messages I receive right away, emails are good, but I get a lot of emails.

(44 years, male, 1-year diabetes duration, no DR, participant 6)

Barrier

Upon completing the eye examination, most participants were satisfied with the level of information provided by the optometrist about their eye condition. However, many participants ($n = 10$) expressed unmet informational needs, wanting more information on diabetes-related ocular complications and advice on how to prevent vision loss associated with diabetes.

...what can go wrong and... some advice, like-how you can prevent it happening? ... Maybe some sort of 2 minutes not to take long, I know they are busy and... some general information that will improve our confidence and what to do.

(62 years, male, 20-year diabetes duration, no DR, participant 19)

DISCUSSION

Within a recently established GP-Optometry collaborative model for diabetic retinopathy in Western Sydney, person and provider level facilitators that supported access to eye care included a referral from a GP or GP nurse, fee-free consultations (subsidised by Medicare) and appointment availability (after-hours appointments and short waiting times). Conversely, barriers to access included out-of-pocket costs, including for extraneous goods/services, for example, purchase of spectacles, time constraints due to work and caring responsibilities and a lack of information and/or poor understanding about how diabetes can impact eye health. These key findings reinforce the need to improve diabetes education and integration of care for routine monitoring of diabetic retinopathy.

This study found poor awareness among participants of the importance of routine eye examinations for diabetes, particularly in the absence of symptoms. This is concerning as early stages and even vision threatening diabetic retinopathy may be present in patients who are asymptomatic.^{15,16} Many Australians living with diabetes do not currently access routine eye examinations as frequently as recommended in clinical practice guidelines, which can delay early detection, timely treatment and lead to avoidable vision loss.¹⁷ Previous reviews have suggested that having a formalised pathway between GPs and optometry for recommending screening for diabetic retinopathy likely improves attendance,¹⁸ and helps to overcome barriers related to a lack of understanding of the importance of screening.¹⁹ This aligns with our finding that the primary motivation for accessing eye care, for most participants, was a referral from their GP. A study of immigrants to Canada from multiple cultural and linguistic cultural groups also found that a doctor's recommendation was an important determinant of attendance at a diabetic retinopathy screening.²⁰ Interestingly, most of our participants reported that the GP would be their primary point of contact for incident eye symptoms. This was surprising, considering the widespread availability of optometrists in the community. This reinforces the integral role of the GP for co-ordinating eye care; however, it may also suggest a lack of community awareness of the role of optometrists as primary eye care practitioners with capability to assess, diagnose and manage eye conditions, in addition to correcting refractive errors through the prescription and supply of spectacles.

Although most GPs would refer patients with diabetes for eye care,^{21,22} evidence of practice gaps in patient access remain, as 25% people with diabetes were not reviewed at recommended intervals.¹⁷ Previous studies have found that public health campaigns and community-level media coverage help to increase diabetic retinopathy screening rates in the community.¹⁸ The peak professional body for optometrists (Optometry Australia) has called for a national strategy to raise awareness of the importance of screening in the community.²³

What has not been fully understood is whether sub-optimal access is caused by health system or provider factors, such as referrals not reaching an appropriate destination or by patient behaviours and knowledge in seeking eye care. This study has sought to inform these gaps and recommends that both approaches be considered when designing strategies to improve access to diabetes eye care services. Although Australia does not currently have a countrywide screening programme, like the English National Health Service (NHS) Diabetic Eye Screening Programme,²⁴ there is a national programme for delivering free personalised text message reminders for diabetes eye checks, 'KeepSight'.²⁵ While 400,000 people are currently registered for the programme, it is estimated that over 1.3 million Australians have diabetes.²⁶

Other models of care including point-of-care screening using retinal cameras at tertiary diabetes clinics and primary care clinics may avoid some barriers to access and improve detection of diabetic retinopathy.^{27,28} Patients with a positive screening result would be referred for a comprehensive assessment with an optometrist or ophthalmologist. Current barriers to implementing these models in primary care include the cost of retinal cameras, time constraints and confidence in assessing retinal images.²⁹ Regional and remote clinics face additional challenges, with limited access to optometry or ophthalmology follow-up for patients requiring referral due to a positive screening result.²⁸

Like previous Australian studies, out-of-pocket costs were identified as a barrier to accessing diabetes eye care.^{30,31} This is not unique to the Australian context, a systematic review of qualitative literature found that cost and competing interests are commonly reported barriers to access.³² This study found that, in the absence of symptoms, perceived costs and lack of transparency in costs may lead some patients to delay accessing eye care. Despite being considered best practice for screening and monitoring diabetic retinopathy³³ and its wide availability,³⁴ Medicare does not currently subsidise retinal imaging performed by optometrists and hence may result in out-of-pocket costs for patients. In the current study, optometry services were fully subsidised by the Australian Government through Medicare. However, prior experiences of eye care beyond the investigated service brought up participants' concerns about out-of-pocket costs associated with accessing optometry and ophthalmology services generally. Additionally, although diabetic retinopathy screening can be performed

independently of spectacle sales, optometrists are often perceived as sellers of spectacles.³⁵ This meant that some participants perceived the two services as entwined, and consequently, several participants reported that they would delay checks for diabetic retinopathy if they could not afford spectacles. Clear public health information on the importance and costs associated with routine diabetes eye care could address this concern. Furthermore, the inclusion of options for low-cost spectacle schemes, which are available in all states in Australia, may alleviate some concerns about the cost of spectacles.

Reflecting on their recent experience of eye care, many participants desired further education in diabetes management and complications of diabetes—including vision loss. This may be, in part, due to the short duration (<2 years) of diabetes among half of our participants, as a longer duration of diabetes is associated with higher levels of knowledge of the disease.¹⁹ Other studies have found that a lack of culturally appropriate diabetes education programmes likely poses a barrier to self-management in older and illiterate adults.³⁶ In contrast, for young adults, time constraints and a lack of appointment flexibility were more likely to be a barrier to access.^{36,37} The most commonly reported factor that helped to promote access to eye care in non-dominant ethnic groups, according to a scoping review, was genuine relationships between health care staff and participants.³⁸

Optometrists typically communicate a summary of findings and management plan pertinent to the ocular examination, but less commonly provide advice on general diabetes management beyond this. To ensure that the patient's informational needs are met, the optometrist can assist by communicating this desire for diabetes education to the referring GP. Although the role of diabetes educators was not investigated in this study, it is apparent from our participant's experience that access to diabetes education could be optimised in our context, particularly for people with newly diagnosed type 2 diabetes. In Australia, optometrists are now able to undertake additional training to become Credentialed Diabetes Educators, hence may be able to provide diabetes education as part of their practice. Ongoing support and education are likely to be important for maintaining motivation for self-management in people with diabetes, as this can decrease over time.³⁹

Strengths, limitations and considerations

Strengths of this study include the use of a robust qualitative analytic approach using a well-defined framework for exploring determinants for access to health care,⁹ and adherence to reporting guidelines for qualitative research.¹⁴ Therefore, we believe this study effectively captured the experiences of patients with type 2 diabetes within a collaborative primary care model embedded within the Western Sydney Diabetes Initiative and

identified the facilitators and barriers that influenced access to care.

Yet, there are certain limitations that should be acknowledged. Due to the recruitment method, this study did not capture the perspectives of individuals who did not access eye care, and those who do not speak English. As none of our participants had type 1 diabetes, the study results do not reflect the experiences of this specific population. Our study sample only included those accessing routine diabetic eye care and did not include urgent presentations, cases of sudden vision loss or any cases of vision threatening diabetic retinopathy; hence, findings may only be generalisable for patients with non-urgent health care needs and do not represent the experiences of people accessing or requiring urgent care. Furthermore, our study sample predominantly included people with no diabetic retinopathy or mild non-proliferative diabetic retinopathy. This may have influenced our findings with respect to out-of-pocket costs, as people with a vision problem may be more willing to pay services to improve or preserve vision.

This study had a narrow focus on a single model of care in one location; therefore, the findings may not be transferable to other models of care or regions beyond Western Sydney. This study only explored the perspectives of patients, overlooking other key stakeholders such as optometrists and GPs. Moreover, as the researchers were outside the studied group, the insider perspective has not been captured. Incorporating these additional perspectives could offer a more comprehensive understanding of care dynamics. Finally, data on participant language spoken, education and employment status were not collected, which hindered reflections of how these factors may have influenced their perspectives and behaviours.

CONCLUSION

In conclusion, these findings highlight the significant role of primary health care practitioners, notably GPs, in guiding patients towards accessing primary eye care services for diabetes. Interprofessional collaboration, particularly between optometrists and GPs, can promote access to timely, routine eye examinations for patients with diabetes. Expanding optometry services that attract Medicare subsidies (such as for retinal imaging) can help alleviate the financial burden associated with accessing diabetic eye care. At the health systems level, this study highlighted an opportunity for public health measures to increase awareness of the importance of routine eye testing for people with diabetes and to invest in horizontal integration in primary care to facilitate timely access. Lastly, ongoing support through text messages and reminders is instrumental in encouraging future appointment adherence and proactive health care-seeking behaviours in patients with diabetes.

AUTHOR CONTRIBUTIONS

Jessie Huang-Lung: Formal analysis (equal); funding acquisition (lead); investigation (supporting); methodology (equal); supervision (lead); writing – original draft (lead); writing – review and editing (equal). **Akshay Rai:** Formal analysis (equal); writing – review and editing (supporting). **Annita Duong:** Formal analysis (supporting); writing – original draft (supporting); writing – review and editing (equal). **Apirami Balakrishnan:** Investigation (equal); methodology (supporting); writing – original draft (supporting). **Abdullah Khan:** Formal analysis (supporting); investigation (equal); writing – original draft (supporting). **Jeremy Husudo:** Formal analysis (supporting); investigation (equal); writing – original draft (supporting). **Rajendra Gyawali:** Funding acquisition (supporting); methodology (supporting); writing – review and editing (equal). **Joseph Nazarian:** Investigation (supporting); methodology (supporting); writing – review and editing (supporting). **Belinda Ford:** Investigation (supporting); methodology (supporting); writing – review and editing (equal). **Joel Rhee:** Formal analysis (supporting); writing – review and editing (equal). **Isabelle Jalbert:** Formal analysis (supporting); funding acquisition (supporting); writing – review and editing (equal). **Lisa Keay:** Conceptualization (lead); funding acquisition (supporting); methodology (equal); supervision (lead); writing – review and editing (equal).

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CONFLICT OF INTEREST STATEMENT


The authors declare no conflicts of interest related to this work.

ETHICS STATEMENT

Ethical approval was granted by the University of New South Wales Human Research Ethics Committee on 17 December 2020 (HC No. HC200884). Conduct of this research adhered to the tenets of the Declaration of Helsinki and informed consent was obtained from all participants.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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