

Improving access to optometry services for people at risk of preventable sight loss: a qualitative study in five UK locations

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ABSTRACT

Background Reducing preventable sight loss is an increasing priority for public health and health care providers. We examined the factors affecting people's use of optometry services in population groups at increased risk of sight loss.

Methods This is a qualitative study in five UK locations. In England, participants were from the Pakistani and Black Caribbean communities; in Scotland from the Pakistani community; and in Northern Ireland and Wales from white socio-economically deprived communities. Thirty-four focus groups were conducted ($n = 289$). The study included people who attend optometry services and people not engaged with services.

Results Barriers to access included limited awareness of eye health and eye disease, concern about the cost of spectacles and the appropriateness of optometry in a commercial setting. Attendance at the optometrist was primarily symptom led. A positive previous experience or continuing relationship with the optometrist helped to alleviate the barriers and promote attendance.

Conclusion Addressing the disparity between the broader messages about eye health and the current perception of the function of optometry could help improve access to services. Uptake may be improved through the co-production of interventions that better resonate with local communities. Non-retail service delivery options should be explored.

Keywords optometry, barriers, at-risk groups, service utilization

Introduction

Eye health is a significant concern for public health. Sight loss impacts on people's participation in activities of daily living^{1,2} and imposes significant costs on families, the health system and the economy.³ People with visual impairment experience consequential comorbidities, such as an increased risk of mental health problems^{4,5} and falls.^{6,7} The importance of preventing avoidable sight loss and improving eye health is recognized by initiatives including the Welsh Government's Eye Care Delivery Plan and the Public Health Outcomes Framework for England.^{8,9}

Risk factors for eye disease include ethnicity, older age and lower socioeconomic status.^{10–12} The risk of developing glaucoma is 4–8 times greater among Black Caribbean people compared with white people,^{10,13,14} and disease occurs 10–15 years earlier.¹⁴ The risk of diabetic eye disease is ~3-times

greater in South Asians relative to white people;¹¹ conversely, white people are more susceptible to age-related macular degeneration (AMD).¹⁵ The prevalence of open-angle glaucoma is reported to double per decade increase in age in white populations (odds ratio (OR) 2.05; 95% credible interval (CrI), 1.91–2.18). The OR (95% CrI) per decade increase in age is 1.61 (1.53–1.70) in black populations and 1.57 (1.46–1.68) in

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Asian populations.¹⁰ The prevalence of AMD also increases with age.¹⁶ A review of social inequalities in sight loss found that higher income, higher educational status and non-manual occupational social class were inversely associated with prevalence of blindness and visual impairment.¹²

Although at increased risk of eye disease, people from minority ethnic groups and individuals from lower socioeconomic groups are less likely to access eye care services^{17–19} and more likely to present at services with later stage disease.^{20–22} A survey by the UK College of Optometry found that among minority ethnic groups, 11% of people over the age of 40 had not been for an eye examination in the last 10 years or could not recall when they last went. This compares with 5% in the wider population.²³ The UK College of Optometry recommends that people have regular eye examinations, at a frequency recommended by their optometrist, to ensure changes in vision or eye health are detected early.²⁴ In the UK, the majority of examinations are performed by optometrists based in a primary care setting. Approximately 21 million eye examinations were conducted in the 12 months to March 2011,²⁵ and the majority of referrals to ophthalmic services originate from primary care optometry.^{26–28}

Studies examining access to eye care have, therefore, mainly focused on at-risk groups. In a primary care setting, reasons for nonattendance include a perceived lack of necessity, concerns about the cost and a lack of time.^{28–31} There remains, however, limited data from a UK-wide perspective. Cross-sectional quantitative studies are few in number, and qualitative investigations have often sampled a single population group living in a particular location. Consequently, Johnson *et al.*³² found that the majority of studies into inequalities in eye health have concentrated on the needs of those found to have sight loss and the maintenance of their quality of life, or on treatments, rather than on the potential to prevent sight loss through earlier detection.

This paper explores common factors affecting access to primary care optometry services in population groups across the UK known to be at particular risk of preventable sight loss.

Methods

The study was conducted as part of RNIB's Community Engagement Projects, a collaborative Program of work with health service providers, local communities and service users to develop evidence-based intervention strategies to increase utilization of eye care services in groups most at risk of preventable sight loss. The work is based in five UK locations with population groups at particular risk of sight loss: Hackney—Black Caribbean community; Bradford and Glasgow—Pakistani communities; and Rhondda Valley and

West Belfast—predominantly white communities living in an area of high deprivation.³³

The study was conducted in 2011 by Shared Intelligence, an independent research organization. The aim was to identify common issues affecting access to primary care optometry. Focus group discussions were held with community members aged 40–65 years old. The age group was selected as the risk of eye disease increases with older age, yet this group may not yet be routinely engaged with services and therefore eye disease may be undetected. Participants were recruited through community organizations and local networks in each area. Purposeful sampling was used to ensure inclusion of individuals who had had an eye examination in the last ten years (defined as engaged with services) and people who had not had an eye examination in the last ten years (defined as not engaged). Conduct of the focus groups was sensitive to local community factors, for example gender-specific groups and facilitators, and discussion groups at different times of the day.

Each group explored the following topics: (i) awareness of eye health, perception of risk and health-seeking behaviour, (ii) the role of health care professionals in eye care, (iii) participants' experiences of optometry and interactions with service providers and (iv) ideas for improving service delivery. A standardized topic guide was used to ensure a consistent approach to the research and facilitate thematic analysis. Focus group discussions lasted between 60 and 90 min, led by a facilitator and assisted by a note taker. Participant characteristics were captured through a pre-discussion questionnaire. With participants' agreement, sessions were audio-recorded.

Focus group notes and recordings were reviewed by the research team to identify key concepts using a grounded theory approach.³⁴ Categories common across the five locations were identified through a synthesis of the results. The analysis and interpretation of hypotheses were validated through discussion and challenge by the research team.

Ethics approval for the study was obtained from the NHS National Research Ethics Service and ethics committees in each location.

Results

Thirty-four focus groups were conducted, involving 289 participants (female: 174; male: 115). The focus group sample and participant characteristics are summarized in Table 1.

Four overarching themes emerged from the discussions, consistent across the five locations. Each theme is discussed later, illustrated with discussion group extracts. Extracts are referenced with the location, number of the focus group and group characteristics: female (F), male (M) or mixed (M/F) group; participants engaged with services (engaged),

Table 1 Characteristics of the focus group sample interviewed in each location.

Location	Number of focus group participants each site	Proportion of males and females participating in the study (%)	Age of participants (years) (proportion, %)	Proportion of participants not engaged with primary optometry services (%) ^a
Glasgow, Scotland	80	Male: 49 Female: 51	≥55 (46%) <55 (54%)	19
Belfast, Northern Ireland	55	Male: 35 Female: 65	≥55 (53%) <55 (47%)	15
Hackney, England	50	Male: 36 Female: 64	≥55 (59%) <55 (41%)	14
Rhondda Valley, Wales	49	Male: 29 Female: 71	≥55 (57%) <55 (43%)	18
Bradford, England	55	Male: 45 Females: 55	≥55 (67%) <55 (33%)	4

^aPeople not engaged with primary optometry services are people who have not been for an eye examination in the last 10 years or cannot recall going.

participants not engaged (not engaged) and group with mixed engagement (mixed), for example, Bradford, FG5, M, mixed.

Limited awareness of eye health and eye disease

Eye health was perceived predominantly in relation to sight loss and refractive error. Participants commonly considered sight loss as an inevitable consequence of ageing. Discussions about modifiable risk factors and preventative actions often included activities to mitigate accidents or injury, rather than preventing disease.

‘Eye health means being able to see properly.’ Rhondda Valley, FG2, M/F, mixed

‘... whether or not you need glasses.’ Belfast, FG1, F, mixed

Participants who were aware of eye disease through individual, family or community experience were more likely to understand the preventive role and function of eye examinations. For these individuals, regular examinations offered reassurance and reduced anxiety.

‘My husband’s sister went blind from glaucoma, now all the kids and grandkids must get checked.’ Hackney, FG1, M/F, mixed

In general, there was a low level of recall of public health information concerning eye health. In contrast, the promotion of sight tests and spectacles was a common experience. Low levels of recall of eye health information did not appear to be linked to low health literacy in general. Participants often compared a perceived lack of information on eye health with prominent messages about other health priorities. Critically,

levels of recall and knowledge of eye health did not differ substantially between people engaged with services and people who were not engaged.

Symptom led demand

Deteriorating vision or the presence of visual symptoms were the most common factors leading people to seek an eye examination. Mirroring this, people who were not routinely engaged with services cited a lack of symptoms or perceived problems as their rationale for not attending the optometrist. Even among people aware of the importance of regular eye examinations, a lack of symptoms combined with a busy lifestyle meant people did not engage regularly with services.

‘You don’t go to the optician or GP until you experience trouble.’ Rhondda Valley, FG6, M/F, mixed

‘I am too busy... I know I should go but no pain so don’t – not like the dentist, when you have pain.’ Glasgow, FG3, F, mixed

Cost and the retail context of community optometry

Participants primarily associated a visit to the optometrist with a sight test and the associated purchase of spectacles. This served to reinforce symptom led demand. With the exception of participants in the Rhondda Valley, the cost of the examination was not raised specifically as an issue. The cost of spectacles, should people require them, was, however, a universal concern.

‘It [going to the optician] is about whether or not you need glasses.’ Glasgow, FG6, F, mixed

The perception that a visit to the optometrist is linked with the purchase of spectacles also appeared to negatively affect the view of optometry as a primary eye health care provider. Subsequently, people often reported sub-optimal engagement with services.

‘Even if your eyes are OK, they’re still trying to offer you something to buy.’ Hackney, FG3, M/F, mixed

‘You make do with what you can afford rather than what you want or need.’ Belfast, FG1, F, mixed

Among many people engaged with services, there was an acknowledgment that the importance of regular eye examinations justified prioritizing a visit to the optometrist.

‘You should go regularly – compared to the price of buying a dress, eyes are important.’ Rhondda Valley, FG4, F, mixed

‘Your eyes are worth it. Sometimes you have to save up and if other things are needed then it would have to wait.’ Bradford, FG1, F, engaged

Trust and the relationship with service providers

A positive interaction with optometrists and the development of a positive patient–clinician relationship directly influenced repeat or habitual examinations. Clear information, explanation of the different tests and feedback by optometrists on results were prominent features of a positive experience.

‘I have the same optician for 12 years; he gives you personal service, what is right for you.’ Hackney, FG6, M/F, engaged

‘I like my local optician – they do a diagram and explain it all’ FG5, mixed, engaged

Appointment prompts and reminders from the optometrist were recognized as a useful mechanism to encourage attendance. However, several participants commented that the appointment reminder often included offers for discounted sight tests or spectacles, reinforcing the perception that the examination comprised only a test of visual function.

Discussion

Main findings of this study

Consistent findings were recorded across the five sites, despite the differences in location, policy context and participant characteristics. Discussions revealed a limited awareness of eye health and eye disease, whereas demand for services was predominantly in response to visual symptoms.

Self-reported exposure to information and levels of health literacy did not vary appreciably with engagement

status, suggesting that information on eye health and preventable sight loss is either failing to reach people or is not being retained by individuals. Participants in Glasgow suggested that traditional methods of communicating health messages may not be the most effective; however, cultural or language issues were not cited as barriers to attendance. It is possible that individuals do not perceive the information as relevant or important. The UK College of Optometrists found that ~25% of people had not been for an eye examination within the recommended period, despite reporting a good level of understanding regarding the recommended frequency of eye examinations.³⁵

The findings revealed that individuals ration attendance due to concerns over cost, leading to sub-optimal engagement. The ability to pay for spectacles was a universal concern, but the cost of the examination was not a widespread barrier.

Importantly, the study revealed that when the patient experience is positive and a relationship with an optometrist is established, many of the barriers to access appear to be alleviated. This provides an opportunity to positively affect any conscious or subconscious decision to ration visits to the optometrist.

What is already known on this topic

There is a small but consistent body of evidence concerning people’s attitudes and behaviour towards optometry services in the UK. Limited awareness of the role of regular eye examinations in preventative health care,^{28–30} concerns regarding cost^{28–31} and fatalism or acceptance of deteriorating sight linked to older age³⁰ all limit people’s engagement with services. Attendance at the optometrist is often symptom driven,^{28,29} and regular eye examinations in the absence of symptoms are less common, despite people placing the highest value on their sight of all senses.³⁵

Optometry in the UK operates a dual diagnostic and commercial role. The prominence of private dispensing is reported to be a consequence of the disparity between the cost of administering an eye examination and the fee received for the service. A recent economic appraisal of a not-for-profit service showed that supplementary funding would be required if cross-subsidization from the sale of spectacles did not exist. However, the authors stressed the importance of setting running costs against the individual and economic costs of not identifying sight threatening disease early.³⁶ Late presentation with potentially blinding conditions is associated with poor prognosis,²⁶ and evidence increasingly indicates that treatment is more efficacious when commenced promptly.³⁷

The dual role of optometry undoubtedly affects people’s perception of the function of the service. A survey of UK adults found that <50% of people would turn to an

optometrist first if they experienced eye problems.²⁸ Similarly, nearly 20% of people thought an optometrist's only role was the prescription of spectacles or contact lenses.³⁵ The commercial element may also undermine trust in the care giving relationship.²⁹ Patient trust in the clinician is, in part, dependent on the primacy of patients' welfare ahead of costs and is positively associated with the use of preventative services.³⁸ The commercial role of optometry may, therefore, present a barrier to attendance separate to the cost barrier. Cross *et al.*,²⁹ examining barriers to attendance, emphasized the importance of disassociating the commercial role of optometrists from their crucial role of disease detection.

To enable better use of optometrists to deliver care and encourage more people to have their eyes tested, on 1 April 2006, the Scottish Government introduced free eye examinations for people living in Scotland.³⁹ A review in 2012 indicated that whilst the policy succeeded in getting more people to have their eyes tested, it also widened inequalities in utilization. A lower level of awareness among vulnerable groups about eye health and care provision was postulated as a reason for the difference. The perceived pressure people may feel to buy spectacles also remained. The review recommended that future policy makers focus on encouraging utilization among the more vulnerable segments of society.²² Research examining the preferred frequency of routine eye examinations also suggested that health promotion should target those most at risk.⁴⁰

Health inequalities among ethnic minority groups are often reported to be a consequence of a lack of knowledge of the main language of the country and knowing less about services available for preventive care. A 'lack of knowledge' among service providers who are not 'culturally competent' to deliver services is also an issue.⁴¹ In our study, cultural and language issues were not identified as significant barriers to access. Several of the optometrists in the Glasgow and Bradford sites were from the local Pakistani community, which may have served to reduce cultural or language barriers.

Involving patients in care decisions and the use of community-based and culturally appropriate health interventions is recognized as a means of reducing health inequalities and increasing clinical effectiveness.^{42–44} Specific to eye care, such techniques have been used to promote diabetic retinopathy screening and aid the management of ocular hypertension. Evaluations of the intervention strategies suggest that multifaceted, complex interventions are required to confer most benefit.^{45,46} The one study to explore this arena in relation to primary eye care focused on an education campaign related to glaucoma as a means of improving attendance. The findings showed that whilst knowledge and awareness was increased, health-seeking behaviour was unchanged.⁴⁷ This remains a key area of research to address inequalities in eye health care.

What this study adds

This study shows that a complex pattern of service-based and patient-centred factors affects access to optometry services; furthermore, these factors are consistent across different at-risk groups. To improve service utilization, the disparity between the broader messages about eye health and the perception of the function of optometry must be addressed. Removing the fee charged for an eye examination may not be sufficient to address the barriers presented by retail optometry. As such, non-retail service provision should be explored. Interventions that better resonate with local communities may also help reduce health inequalities. To our knowledge, this is the first comparative study of its kind in the UK. The findings provide valuable insight towards the development of interventions to increase service utilization among at-risk groups.

Limitations of this study

We were able to recruit only a small number of people not engaged with optometry services. Participants were recruited via community organizations and local networks; therefore, isolated individuals may not have been included in the study. Individual socioeconomic data were not collected, meaning certain socioeconomic groups may have been under or over-represented. These factors may have affected the importance given to particular issues.

The focus groups were facilitated by experienced researchers, in English with a local language speaker providing interpretation as required. This is unlikely to have altered the reported issues but may have affected group interaction within some groups. Finally, this paper reports common themes from across the five sites and may not represent the entirety of local issues.

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