Barriers to Care: Examining socioeconomic determinants and barriers to clinical attendance for diabetic eye disease

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Background

Diabetic retinopathy (DR) is one of the leading causes of blindness within the UK. There is a high rate of non-attendance for diabetic eye clinics (15% for clinic and 21% for laser clinics). This can lead to poor management of an individual's diabetic retinopathy, potentially causing irreversible visual loss. Supporting people with diabetes to attend eye clinics is of utmost importance to prevent visual loss.

Purpose

To identify the socioeconomic determinants and barriers to attendance at a busy teaching hospital diabetic eye clinic.

Methods

A retrospective study of 216 patients who did not attend compared to 185 who did attend was undertaken to assess the socioeconomic determinants, followed by a prospective qualitative assessment of the barriers to attendance.

1. Patients were identified for not attending DR clinics between 01/07/24 - 31/08/24 or attending DR clinics between 09/09/24-/19/09/24
2. Demographic data, deprivation score (IMD), distance, clinic type, clinical factors including vision and comorbidities was obtained and compared between the two groups
3. A prospective, qualitative assessment of barriers to attendance was conducted via interviews with a cohort of 34 patients who DNA using a validated questionnaire and thematic analysis of further comments.

Results

Non-attenders were more likely to be younger, from an ethnic minority and lower socioeconomic background. Binomial logistical regression showed significant effect of age and IMD, for every increase in age of 1 year, their odds of attending increased by a factor of 1.022.
Other factors such as visual acuity, distance from the hospital and comorbidities were not significant factors affecting attendance rates.

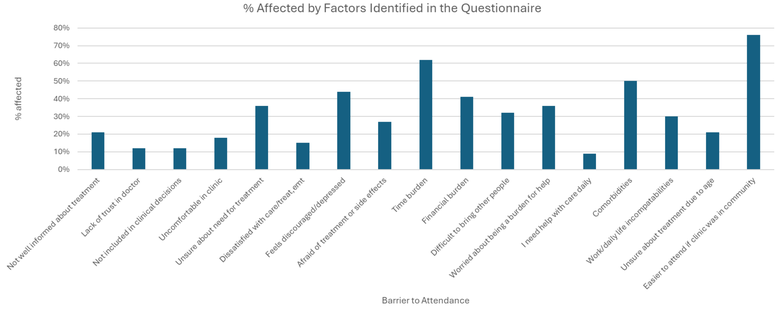
Demographic data for patients who did not attend compared to those who did attend the diabetic eye clinics

	Patients who DNAd (216)	Patients who attended (185)	P-value
Age (mean ± SD)	58.8 ± 15.8	64.0 ± 14.2	0.0006
Gender (% Male)	125 (58%)	123 (66%)	0.08
Ethnicity (% white British)	136 (63%)	143 (77%)	0.001 (White British vs all other ethnic groups)
Multimorbidity (yes, %)	104 (48%)	75 (41%)	0.13
Visual acuity ≤0.3 LogMAR 0.3-0.6 LogMAR 0.6-1 LogMAR >1 LogMAR	 177 (84%) 21 (10%) 7(3%) 5(3%)	 152 (82%) 22 (12%) 5 (3%) 6 (3%)	0.86
Distance travelled (% < 10 miles)	194 (90%)	155 (84%)	0.07

Multivariate analysis results of age and IMD and effect on attendance. Odds ratio of patients attending based on IMD score alone for IMD 6,7,and 9 were more than double a patient from IMD 1 (most deprived area), 3.15).

				95% C.I.for EXP(B)	
		Sig.	Exp(B)	Lower	Upper
Step 1ª	Age	.002	1.022	1.008	1.037
	IMD(1)	<.001	.154	.053	.442
	IMD(2)	.074	.495	.229	1.070
	IMD(3)	.033	.354	.137	.917
	IMD(4)	.418	.722	.328	1.589
	IMD(5)	.073	.435	.176	1.079
	IMD(6)	.515	.749	.314	1.787
	IMD(7)	.618	1.266	.501	3.202
	IMD(8)	.896	1.059	.445	2.522
	IMD(9)	.216	.523	.188	1.458

Dichotomisation results of the questionnaire showing the % of interviewed participants who experienced each barrier:



Main themes identified by thematic analysis of patient's interview transcripts

Themes from interview	Subthemes
Communication	Good communication allows for good doctor-patient relationship
	Poor communication causes poor doctor-patient relationship
	Uncertainty with care due to poorly informed or educated about it
	Well informed about the importance of eye care
	Communication is fragmented due to lack of continuity in healthcare professionals
Service Delivery Issues	Capacity to see patients or rebook within timely manner
	Setup within the clinic on the day
	Location of appointments
	Service delivery communication regarding appointment
Health conditions restricting attendance	Physical health restricts attendance
	Mental health restricts attendance
Inadequate experience	Time burden
	Financial burden
	Waiting is uncomfortable
	Discomfort from general appointment or treatment
	Effect from mental health
	Anxiety about attendance, diagnosis or treatment
Transport and accessibility issues	Accessibility or transport to hospital is an issue
	Hospital transport could be improved or provided
Requires more support	Memory causes non-attendance
	Relies on family/friends to support them but not always available
	Needs more support than currently receiving with day-to-day life
Other Commitments causing Non-Attendance	Has work commitments
	Has caring responsibilities

"I think the annual diabetic eye test is pointless personally"

"I would plan on going but on the day my anxiety and depression would kick in so at the time I would feel I'm not going anywhere; I'm not doing anything."

"I'm all for coming over but then I can't drive back home because of the drops."

"My memory is it not as good as it was but sometimes I forget an appointment."

Conclusions

- Demographic data showed a health inequality of poorer attendance in ethnic minority groups or people from a lower IMD score; consistent with other studies
- Location of clinic, time burden and comorbidities were the biggest barriers to attendance
- Follow-up questionnaires focusing on high-risk groups (e.g. wider capture of patients from ethnic minorities or with cognitive disabilities) would allow broader understanding of how to support these groups and to adapt and develop the service to facilitate their attendance
- Thematic analysis gave rich detail to barriers to attendance. These can be used to shape future changes to plan a more equitable service to help reduce the risk of patients with diabetes developing blindness