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**Citation:** Bott, D., Campbell, P., Subramanian, A., Edgar, D., Alaghband, P. & Lawrenson, J. (2024). Determinants of medication adherence in UK glaucoma patients: An interview study. Poster presented at the ARVO 2024, 5-9 May 2024, Seattle, USA.

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### Background

- Glaucoma is the second most common cause of global blindness
- Treatment is frequently life-long daily eyedrops but adherence to long-term medications is often poor<sup>1</sup>
- Good adherence involves a change in health-related behaviour
- Sub-optimal adherence reduces treatment effectiveness, potentially leading to disease progression and sight loss<sup>2</sup>
- Interventions to improve adherence are of limited success, lacking robust theoretical underpinning of how they influence change in adherence behaviour<sup>3</sup>

### Purpose

To identify factors influencing patients' medication adherence by applying the Theoretical Domains Framework (TDF) of behaviour change, a theoretical framework that integrates theories of behaviour change into 14 domains.

The TDF provides a theoretical lens to identify personal, sociocultural and environmental influences on behaviour<sup>4</sup>

### Methods

- Participants from UK glaucoma clinics prescribed  $\geq 1$  IOP-lowering eyedrop were invited to take part
- Semi-structured interviews were conducted via Zoom

*"Do you know why you take your eyedrops?"*

*"On a daily basis do you have any difficulties putting your eyedrops in?"*

Examples of questions asked

- Interview transcripts were analysed using deductive framework analysis to code text into the broad TDF domains, followed by deductive analysis to further code text within each domain

### Results

- Thirteen participants were interviewed between October 2022 and February 2023

Participant demographics		N (%) N=13 total
Gender	Female	6 (46)
	Male	7 (54)
Age (years)	31-60	5 (39)
	61-75	6 (46)
	>75	2 (15)
Ethnicity	White British	11 (85)
	White Other	1 (8)
	Caribbean British	1 (8)
Number of glaucoma medications*	1	4 (33)
	2	4 (33)
	3	1 (8)
	4	3 (25)
Duration of glaucoma eyedrop usage (yrs)	<5	4 (31)
	5-10	3 (23)
	>10	6 (46)

Table 1: Participant Demographics

\*One participant currently not using eyedrops since had glaucoma surgery in 2021



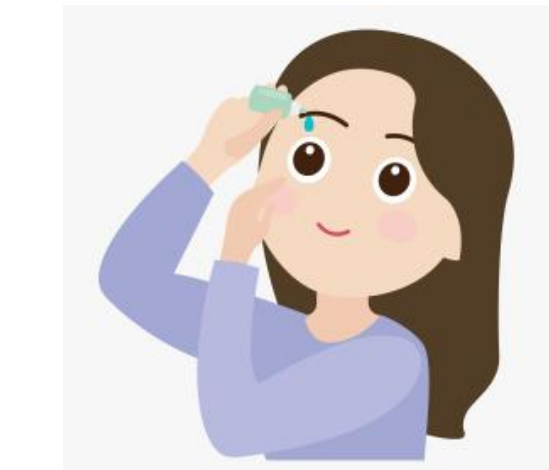
Figure 1: TDF domains ranked in order of importance in terms of relevance to the behaviour as identified by frequency of coding, level of elaboration and spontaneity of themes

### Key Barrier themes



Forgetfulness

*"I can be quite forgetful about putting my drops in"*



Lack of physical ability/poor vision

*"When I try to put eyedrops in...I'm getting them on my nose"*



Lifestyle changes

*"It's even trickier when you go away"*

### Key Enabler themes



Sufficient understanding of glaucoma and treatment

*"To keep your pressure down to reduce the damage at the back of your eye"*



Developing a routine

*"I set up an alarm"*

### Conclusions

- Adherence to glaucoma medication is complex and affected by multiple factors
- Key barriers to adherence can be mapped to evidence-based Behaviour Change Techniques (BCTs), to identify potential strategies to improve medication adherence

### References

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Ask me about future work [Deborah.bott.1@city.ac.uk](mailto:Deborah.bott.1@city.ac.uk)



### Acknowledgements

Funder – College of Optometrists Postgraduate Scholarship



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