

Real-World Patient Experience with Autonomous Clinical Consultations: A 3-Year Analysis of over 145,000 Interactions Across NHS Cataract Pathways

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Background

AI-powered conversational agents offer potential efficiency gains for cataract care while maintaining clinical safety.

Prior qualitative research identified **three principal themes** shaping patient acceptance: healthcare benefits, technology acceptance, and preference for human interaction (Khavandi et al., 2022).

We performed a large-scale thematic analysis of patient feedback to **validate these findings at scale**, identify pathway-specific patterns, and explore whether new themes have emerged from real-world deployment.

Dora is now deployed across South-East England (population $\approx$ 3.8 million), managing around 2,000 patient interactions every week - the largest known dataset of its kind in routine NHS ophthalmology.

Methods

- Feedback analysed from patients completing automated calls with Dora R3 (Ufonia, Oxford) across NHS ophthalmology services, December 2022 – December 2025
- **Five pathway categories:** patient choice/complexity, pre-assessment, pre-surgery reminder, post-operative follow-up, PROMs (pre- and post-op)
- **Patient satisfaction:** Customer Satisfaction Score (1–5 scale, CSAT) plus free-text comments
- **Hybrid deductive–inductive thematic analysis:** established themes applied via keyword classification; uncategorised negative feedback systematically reviewed for emergent themes
- **Multi-label coding** permitted comments to span multiple themes; prevalence calculated by pathway and year

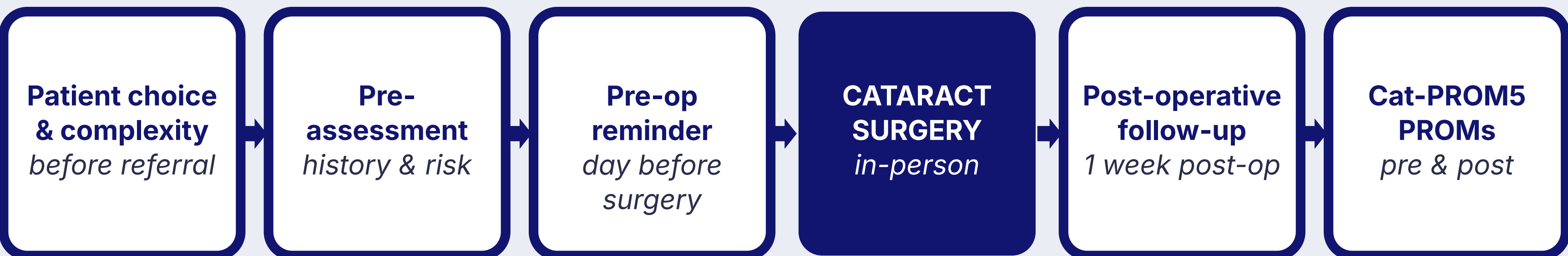
What is Dora?

- UKCA-regulated clinical conversation assistant
- Calls patients on landline or mobile
- Has a natural-language conversation to elicit clinical information
- Similar experience to speaking to a human clinician
- No apps, websites, training or smartphones required

Cataract pathways included in this analysis



Where Dora sits in the cataract pathway



Dora supports patients at every non-surgical stage of the pathway.

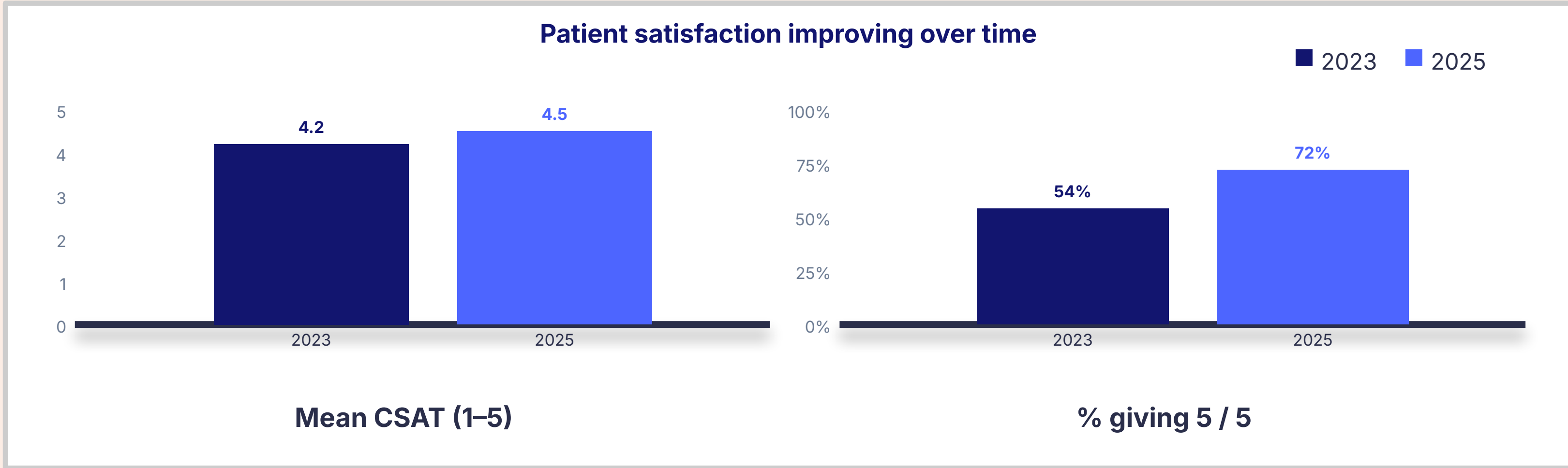
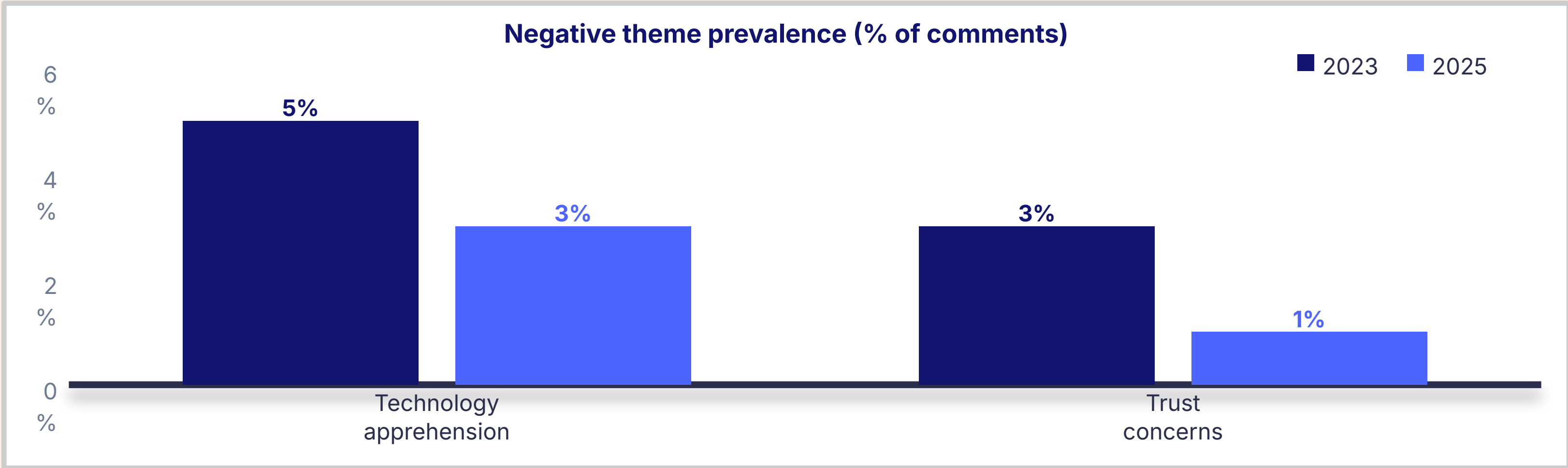
Results

Patient experience by cataract care pathway

Pathway	Interactions	Mean CSAT	Convenience	Human pref.
Cataract pre-assessment	39,948	4.57	25.3%	3.9%
Cataract pre-op check	20,839	4.31	21.3%	5.7%
Post-operative follow-up	32,368	4.53	22.9%	6.7%
Cat-PROM5 outcomes (post-op)	31,051	4.34	19.9%	5.6%
Cat-PROM5 outcomes (pre-op)	11,828	4.41	24.1%	4.1%
Appointment reminder	9,638	4.54	24.5%	3.2%
Total / mean	145,672	4.47	23.0%	5.2%

CSAT = Customer Satisfaction (1–5 scale). Convenience and Human Pref. show % of comments mentioning these themes.

Themes over time: declining technology apprehension and trust concerns



Key results & conclusion

- **Established themes validated at scale:** convenience/efficiency consistently mentioned (20–25% across pathways).
- **Preference for human interaction varies by pathway:** lowest for administrative reminders (3%) and pre-assessment (4%); highest for post-op follow-up (7%).
- **Progressive normalisation of AI:** technology apprehension fell 5% → 3%; trust concerns 3% → 1%.
- **No major new negative themes:** minor conversational flow issues remained rare (<0.5% of comments).
- **No safety signals identified** across the 3-year, 145,672-interaction dataset.
- **Pathway-specific implementation matters:** patients accept AI more readily for administrative than clinical-follow-up conversations — a finding with direct service-design implications.

Bottom line: favourable, growing acceptance of AI conversational agents across the cataract pathway supports continued, pathway-tailored deployment.

Disclosures

EL, AH, LS, LW are employees and NdeP director of Ufonia Ltd. Part of this work has been supported by SBRI Reset and Recovery.

Reference

Khavandi S et al. User-acceptability of an automated telephone call for post-operative follow-up after uncomplicated cataract surgery. Eye (Lond) 2022. doi:10.1038/s41433-022-02289-8