

Clinical note

Why one million contact lens wearers dropped out[☆]

Graeme Young

Visioncare Research, Farnham, Surrey GU9 7LW, UK

The early 1990s saw a large increase in the number of contact lens wearers in the UK. It is estimated that this figure doubled between 1990 and 1996 to reach approximately three million wearers. The increased uptake of contact lenses during this period is thought to have been due to a number of factors, including the availability of frequent replacement soft lenses, the introduction of daily disposable lenses and the effects of television advertisements [1].

However, in the late 1990s there was a subsequent fall in the number of contact lens wearers (Fig. 1). The decline in the use of contact lens may have coincided with the growing appeal of designer fashion spectacles; however, this seems an inadequate explanation for the loss of nearly a million contact lens wearers. A further worrying statistics is that the UK has one of the highest contact lens drop-out rates in Europe [2]. This cannot be explained by the fact that the UK has a higher proportion of people who have tried contact lenses, because in Italy, where a similar proportion have tried contact lenses, the drop-out rate is relatively low.

The reasons for discontinuing contact lenses have been evaluated in a number of studies [3–5]. The most commonly cited reason in all of these studies is discomfort, which accounts for between 43 and 72% of the drop-outs. Poor vision, handling difficulties and cost are the other reasons reported by lapsed contact lens wearers. However, the reasons given by patients themselves for their discontinuation of the contact lenses do not provide an adequate explanation of the problem. The patients' experience of contact lens discomfort may have arisen from a variety of causes, such as contact lens-related dry eye, poor lens fitting or protein deposition. A recent study [6] provided the opportunity to examine some of the underlying causes of contact lens discontinuation and to face up to some of the disappointing realities of contact lens provision in the UK.

The study attempted to answer the question: How many lapsed contact lens wearers can be successfully refitted? In a multicentre study involving 15 investigators throughout the

UK, 236 lapsed wearers were recruited with the intention of being refitted with contact lenses. The findings published at the end of the last year showed that a high proportion of lapsed contact lens wearers can be successfully refitted and usually with relative ease. On initial assessment, only a handful (2%) were considered to be fundamentally unsuitable for contact lens wear. More than 95% were dispensed lenses and of these 77% were considered successful after 1 month's wear. Particularly given that only half of the patients had given up contact lens wear in the past 5 years, the disparity between their previous and current contact lens experience is perplexing and prompts the question: What went wrong?

As a part of the study, the investigators were asked to state what factors they felt had contributed to the patient's previous contact lens failure. In a high proportion of cases, shortcomings on the part of the previous practitioner were cited. However, it was not immediately obvious from the analysis whether these deficiencies had been the critical factor in failure or whether they were incidental.

As a supplementary analysis, I therefore reviewed each of the 236 case histories and made a judgement as to the main cause of previous contact lens discontinuation in order to gain some insight into why contact lens drop-outs are so prevalent. This analysis was based on the patient's clinical details, previous contact lens history, previous contact lens prescription details, the investigator's assessment, clinical study findings and the patient's contact lens wearing success after 6 months. Each case was classified according to one of five possible underlying causes which was felt to be the prime reason for discontinuation:

- Eye-related problems
- Lens-related problems
- Patient-related factors
- Practitioner misjudgement
- Product non-availability

Clearly, some cases of contact lens discontinuation arise due to a series of problems and mishaps and, therefore, some element of subjectivity is inevitable in this type of analysis. However, the process of categorisation was surprisingly easy and on rechecking the cases a second and third time, it was

[☆] BCLA Presidential Address originally presented September 2002, Royal Society of Medicine, London.
E-mail address: Graeme@visioncare.co.uk (G. Young).

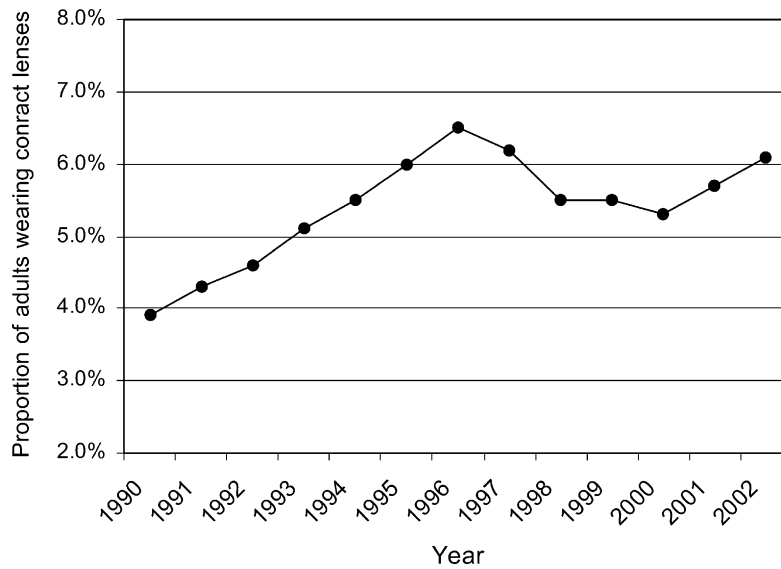


Fig. 1. Contact lens wearers as a proportion of the UK adult population (reproduced by kind permission of Philip Morgan [7]).

rarely necessary to change the original decision. The results are summarised in Table 1 along with the proportion of patients in each category who had given up contact lenses in the previous 5 years. The table also indicates the proportion of subjects who were subsequently refitted successfully with contact lenses.

Only a small proportion of the discontinuations was brought about by eye-related problems and in most cases (62%) this was due to dry eye. In some cases, the patients had experienced eye problems not related to contact lens wear (e.g. iritis), necessitating a temporary withdrawal from contact lenses. In only a few cases, could the patients be considered essentially intolerant of contact lenses.

Predictably, the highest proportion of failure fell in the broad category of lens-related problems. These were the fittings that failed for unforeseen reasons relating to lens performance, the most common being rigid lens discomfort which accounted for one-tenth of all the drop-outs. Soft lens discomfort was the next most common reason while vision and deposit-related problems accounted for the remainder.

The second most common cause of discontinuation related to non-clinical factors such as cost, convenience, disinterest

and handling problems. Inevitably, a proportion of patients will drift away from contact lenses for a variety of extraneous factors; however, it was obvious in some cases that better communication between practice and patient or easier availability of replacement lenses would have prevented discontinuation.

In only a small number of cases, the patient dropped out of contact lens wear because of the non-availability of more appropriate lens designs or parameters, e.g. toric bifocals or less ambitiously, soft lens fittings for hard-to-fit corneas.

A worryingly high proportion (21%) of discontinuations were related to obvious errors of judgement by the previous practitioner. These are summarised and sub-categorised in Table 2. The most common error was the usage of an inappropriate lens design, for instance, excessively loose fitting lenses or lenses that clearly failed to provide enough oxygen. In many cases where a given lens was less than successful, the practitioners failed to try an alternative. Even with recent failures, some of these involved out-moded lens types such as standard thickness low-water lenses.

Many visual problems could have been avoided by correcting significant levels of astigmatism. In some cases, near

Table 1
Prime reasons for discontinuation from contact lenses and proportion in each category successfully refit with contact lenses

Prime reasons	All subjects		Lapsed in previous 5 years		Successfully refitted	
	N	Percentage	N	Percentage	N	Percentage
Eye-related	33	14	13	39	20	61
Lens-related	86	36	45	52	66	77
Patient-related	54	23	23	43	39	72
Practitioner misjudgement	49	21	32	65	41	84
Non-availability of product	14	6	5	36	7	50
Total	236	100	118	50	173	73

Table 2

Prime reasons for practitioner misjudgement and proportion in each category successfully refitted with contact lenses

Prime reasons	All subjects		Successfully refitted	
	<i>N</i>	Percentage	<i>N</i>	Percentage
Inappropriate lens fit	16	33	16	100
Inappropriate modality	3	6	2	67
Uncorrected astigmatism	9	18	7	78
Uncorrected presbyopia	3	6	3	100
Undiagnosed CLPC	7	14	6	86
Undiagnosed solution reaction	5	10	4	80
Other (e.g. bad advice)	6	12	3	50

vision problems could have been anticipated and corrected just by recommending reading glasses. In a significant number of cases, contact lens-related papillary conjunctivitis (CLPC) or solution intolerance had gone unrecognised. Regrettably, there was no evidence to suggest that skill levels had improved in recent years; in fact, two-thirds of the cases categorised as ‘practitioner misjudgement’ dated back less than 5 years (Table 1). Thus, the skill level of many contact lens practitioners appears to be inadequate. There are a number of possible explanations for this, not least of which is the relatively fast pace of development in contact lenses compared with other areas of eyecare. Another aspect of contact lens practice often overlooked by educators and the employers, is the need for novice practitioners to be given practical guidance in their early years of practice.

Taken as a whole, these findings suggest that the number of contact lens drop-outs in the UK is unnecessarily high. As noted in an earlier publication, a high proportion of contact lens drop-outs can be refitted with relative ease and we should be more willing to give these patients a second chance.

A number of other important lessons are suggested by this additional analysis:

- Contact lens failure should be regarded as an exception rather than a common occurrence.
- Contact lens practitioners must be prepared to use a wide range of lens types and products in order to give their

patients the best opportunity for successful contact lens wear.

- While there has been continuous improvement in contact lens products, further new products are needed, and will no doubt emerge, to fit the less straightforward cases.
- Compulsory continuing education for contact lens practitioners is to be welcomed but may not go far enough in correcting the deficiencies in skill levels.

It is the responsibility of the entire contact lens community — educators, employers, practitioners, manufacturers and professional bodies — to work harder in order to ensure that prospective wearers are given the best opportunity to enjoy the benefits of contact lens wear.

References

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