



## Improving your spectacle patients' in-practice experience with contact lenses during frame selection



Michael Mayers<sup>a</sup>, Meredith Jansen Bishop<sup>a,\*</sup>, Daryl Walerius<sup>a</sup>, Kyle Conway<sup>a</sup>, Melissa Usseglio<sup>b</sup>, Scott Hasty<sup>c</sup>, Scott Allison<sup>c</sup>

<sup>a</sup> Johnson & Johnson Vision Care, Inc., United States

<sup>b</sup> RTI Research, United States

<sup>c</sup> Independent optometrist, United States

### ARTICLE INFO

#### Keywords:

Soft contact lenses

Contact lens prescribing

### ABSTRACT

**Purpose:** A market research survey was conducted to assess the impact of offering complimentary contact lenses (CLs) to spectacle-only wearing patients during frame selection with regards to their in-office experience, the transaction amount for their eyewear purchase and the likelihood of proceeding with a comprehensive contact lens fitting.

**Methods:** Five optometry offices in the US participated. An initial interviewing phase served as a control during which optometrists treated spectacle-only wearing patients in the usual manner for frame selection. After this, the offices transitioned into a test phase where patients were offered the opportunity to wear CLs while selecting new spectacle frames. Only patients 18 or older who had not expressed an interest in CLs were invited to participate. A brief survey was completed on an iPad following the visit by all patients in both control and test phases.

**Results:** 410 patients (205 test, 205 control) participated. 63% of the test group elected to wear CLs (40% spherical, 20% toric, 35% multifocal, 5% monovision). Patients wearing CLs spent more on their eyewear purchase (\$708 vs \$593,  $p = 0.04$ ), were greater than 2.5X more likely to have received or scheduled a CL fit ( $p = 0.01$ ), and were greater than 3X more likely to consider scheduling a CL fitting in the future ( $p = 0.0003$ ). Additionally, 93% reported that they were highly satisfied with the experience and 86% said they would wear CLs to select frames again (86%).

**Conclusions:** Offering CLs to spectacle-only patients positively impacts eyewear selection and purchase and can grow the overall CL business.

### 1. Introduction

Patient satisfaction has been shown to be a strong factor for creating loyalty in other disciplines of health care [1,2], and has been reported to have an extremely high correlation with customer loyalty in optometric practice [3]. Providing a positive experience during the selection of spectacle frames is an important step in the overall eye care experience that can aid patient retention [4]. Patients' expectations with respect to health care provision have changed significantly in recent years. In order for optometrists and other health care providers to meet these expectations, a regular review of office procedures and the development of alternative procedures and ideas that can be employed to enhance the overall patient experience should be conducted [5]. Incorporating the provision for wearing contact lenses during eyewear

selection is an option that could be implemented.

While the precise number of contact lens wearers worldwide is not known, current estimates exceed 140 million individuals [6], and approximately one third of contact lens fits are to patients without recent contact lens experience [7]. However, despite this influx of new wearers each year, the overall number of contact lens wearers remains relatively unchanged, since large numbers continue to drop-out of contact lens wear each year, primarily due of discomfort and vision related issues [8,9]. As a result of this attrition rate, growing a contact lens practice continues to be an ongoing challenge for many eye care practitioners (ECPs).

An additional factor limiting growth in the number of contact lens wearers is the perception held by many ECPs that contact lens fitting requires more time, and is less profitable, than spectacle dispensing and

\* Corresponding author.

E-mail address: [mbishop4@its.jnj.com](mailto:mbishop4@its.jnj.com) (M. Jansen Bishop).

<https://doi.org/10.1016/j.clae.2018.10.013>

Received 20 July 2018; Accepted 16 October 2018

1367-0484/ © 2018 The Authors. Published by Elsevier Ltd on behalf of British Contact Lens Association. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

therefore they may not be offering the option of contact lens correction to many of their patients. These beliefs were somewhat dispelled in a study conducted by Atkins et al in the United Kingdom [10]. In this study patients with no contact lens experience were randomly assigned to either a group who were offered fitting with daily disposable contact lenses to aid during spectacle dispensing, or a group who were dispensed spectacles in a conventional manner. The group wearing contact lenses reported a more positive spectacle selection experience, resulted in a 32% increase in the amount spent on spectacle frames and lenses, and one third of the subjects who were trial fitted with contact lenses for their spectacle dispensing proceeded to be fitted with and purchase contact lenses. This approach employed in this study has been called “Enhancing the Approach to Selecting Eyewear” or “EASE”. An analogous study was recently conducted in India and reported similar findings [11].

Despite the extremely positive results that have been shown to be possible with proactively offering contact lens wear during the selection of eyewear, the optometric profession in the United States (US) has not embraced this approach to date. There may be a number of reasons for this including the fact that studies have not been conducted in the US where patient behavior and attitudes may be different. Additionally, optometrists in the US are often characterized as being “risk-averse” when considering changes to their normal approaches to patient care [12].

The purpose of this research project was to assess the impact of offering spectacle-only wearing patients in optometric offices in the US the opportunity to wear complimentary contact lenses with professional oversight during frame selection with regards to their in-office experience, the transaction amount for their eyewear purchase, and the proportion likely to proceed with a comprehensive contact lens fitting.

## 2. Methods

### 2.1. Research project design

Five optometry practices in the Midwest United States (US) participated in this research project. These offices included busy, urban practices and quiet, rural locations that represented a variety of socioeconomic levels.

Spectacle-only patients who were not specifically seeking contact lenses were invited to participate in this research project which was conducted in two phases, an initial control phase followed by a test phase. The enrollment criteria were intentionally broad in order to accurately represent the optometrist’s overall patient base. In both control and test phases, study enrollment was open to any patient who met the following inclusion criteria:

- (1) Habitual spectacle wearer or individual seeking examination and spectacles;
- (2) No current contact lens wear (neophytes and lapsed contact lens wearers were eligible);
- (3) years of age or older;
- (4) Not specifically visiting the office for an examination to obtain contact lenses.

The ECPs taking part in the project provided a verbal explanation to all prospective subjects. All potential subjects were advised that their participation was strictly voluntary and that they could withdraw and discontinue participation at any time and that any information provided by them would not be personally identifiable. Subjects provided implied consent to participate by electing to complete the preliminary demographic survey questions presented to them on an iPad provided by the office. Subjects were not paid for their participation in the research project. Since this was a market research survey and not a clinical study, review by an independent ethics committee was not required.

Beginning in July 2016 and continuing through August 2016, a total of 205 subjects were enrolled in the control phase of this research project. The ECPs conducted their planned eye examination as usual, then escorted their subject to the spectacle frame selection area to browse, try on frames, and complete an eyewear purchase (prescription spectacles and/or sunglasses), if desired. Once this activity was finished the subject completed a 5-minute questionnaire regarding their experience using the iPad provided by the office.

Upon completion of the control phase, all practices transitioned to the test phase. The phases were conducted sequentially to eliminate potential confusion among practitioners regarding appropriate methodology. The test phase took place from September through November 2016 during which time a further 205 subjects were enrolled. The protocol followed by offices was identical to that used during the control phase, but with the addition of offering patients the option to try complimentary contact lenses for wear only during the spectacle selection process. The contact lenses were positioned solely as an aid to the frame selection experience.

Subjects willing to wear contact lenses while browsing for frames in the optical were first evaluated during the normal exam process to confirm no contraindications for contact lens wear. Contact lenses from in-office inventories (typically daily disposable ACUVUE® brand), were inserted by the ECP or qualified office staff. All vision correction types were accommodated (sphere, toric, multifocal, monovision) based on the patients’ needs and the professional opinion of the ECP. After lens insertion, patients were escorted to the spectacle frame selection area, where they could browse, try on frames, and complete an eyewear purchase (prescription spectacles and/or sunglasses), if desired. Once this activity was finished, the subject completed a similar short questionnaire regarding their experience using the iPad provide by the office. Subjects answered all iPad questions personally, without staff assistance, unless specifically requested. In addition to the initial demographic questions, the questionnaire contained a series of 5-point Likert scale questions regarding their in-office experience during the spectacle selection process. Subjects who did not wear contact lenses while selecting their eyewear were asked why, and all subjects from both the test and control groups were asked whether they had scheduled a future contact lens fitting or received one that day during the appointment. Subjects also provided the total amount spent on their eyewear purchase(s), which was defined as total amount before insurance or deductions were applied. They were able to obtain the exact amount from a staff member, if necessary. Contact lenses were removed by the staff before the subjects left the practice.

In the event that subjects had been unable to achieve a satisfactory wear experience with the trial contact lenses, office staff were directed to remove the lenses immediately and the subjects were to continue the spectacle selection process without contact lenses. Professional judgement and oversight continually occurred as needed throughout the process.

### 2.2. Statistical methods

Demographic data from the control and test periods were compared to confirm equivalence and no balancing was required. The demographic profile of subjects who tried contact lenses was allowed to reflect natural willingness to try this vision correction method.

Statistical analysis was performed using a *t*-test of proportions and means, as appropriate. A type I Error Rate of 0.05 was used to declare statistical significance and 0.10 provided directional guidance. Comparisons were made between the contact lens-wearing test group and the control, using two-tailed 95/90% confidence intervals (proportions for Likert scales; mean-testing for average spend).

## 3. Results

One hundred and twenty-nine of the subjects in the test group

**Table 1**  
Gender and age demographics.

	Total Test Group	Contact Lens Wearing Test Group	Control Group
Gender			
Male	37%	33%	42%
Female	63%	67%	58%
Age			
18–29	12%	15%	13%
30–39	20%	22%	19%
40–49	22%	22%	28%
50+	46%	42%	40%
Mean	46	45	46

(63%) opted to wear complimentary contact lenses during the spectacle selection process. All of the subjects in this test group were able to achieve a satisfactory wear experience with the trial contact lenses. The contact lens-wearing test group therefore included 129 subjects, who were primarily female (67%) with an average age of 45 years (Table 1). Sixty percent (60%) of these subjects were lapsed contact lens wearers. Vision correction needs included myopia (63%), presbyopia (50%), astigmatism (30%) and hyperopia (26%). The control group demonstrated a similar demographic profile and small differences were investigated to confirm that there would be no impact on evaluative data. (Table 1)

Within the test group, 76 subjects (37%) declined to try contact lenses. The primary reasons for declining were a lack of interest (45% already happy with their eyeglasses) and a fear of the lens being inserted (26%). Other reasons included a prior negative experience with contact lenses (14%) or a lack of time (8%).

A total of 40% of subjects wore spherical contact lenses during the trial, followed by 35% wearing multifocal contact lenses. Another 20% wore toric lenses, while only 5% used monovision. Table 2 shows that test subjects who wore contact lenses were better able to see themselves (83% test vs. 74% control,  $p = 0.05$ ) and could see the frame details more clearly (83% test vs. 77% control,  $p = 0.10$ ).

Subjects in the test group who wore contact lenses were also significantly more likely to make an eyewear purchase on that visit (90% test vs. 77% control,  $p = 0.0003$ ) and spent approximately 20% more on their eyewear purchase (\$708 test vs. \$593 control,  $p = 0.04$ ) (Fig. 1).

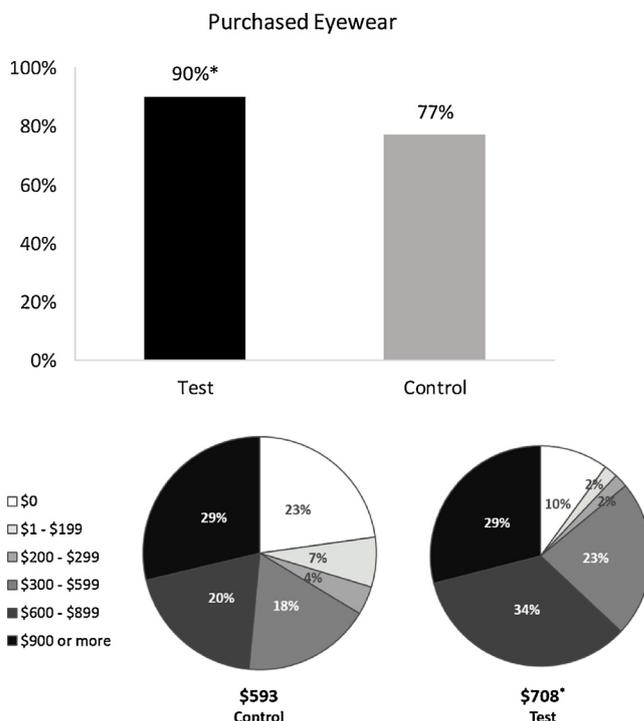
Contact lens interest was also positively influenced by this trial. Fig. 2 shows that the test group was more than 2.5 times more likely than the control group to receive or schedule a contact lens fitting appointment (16% test vs. 6% control,  $p = 0.01$ ) and were greater than 3 times more likely to consider scheduling a fitting in the future (20% test vs. 6% control,  $p = 0.0003$ ). Half of the subjects in the test group who wore contact lenses during the trial reported that they would consider wearing contact lenses in the next 12 months versus only one quarter in the control group (definitely/probably would consider, 51% test versus 26% control,  $p = 0.0001$ ).

Over 9 out of 10 test subjects reported that they were highly satisfied with the experience (93%) and more than 8 in 10 said that they were likely to wear contact lenses to select frames again (86%), assuming that this opportunity was available.

**Table 2**  
Questionnaire responses for seeing clearly.

	Proportion rating extremely/very	
	Test	Control
How clearly could see self	83%*	74%
How clearly could see frame details	83%^	77%

Questionnaire options were on a 5-point Likert scale: extremely, very, somewhat, not very, not at all. \*/^ indicates significant difference at the 95/90% confidence level.



**Fig. 1.** Purchasing Behavior.  
\*/^ indicates significant difference at the 95/90% confidence level.

**4. Discussion**

The results from this research project clearly demonstrate that offering the opportunity to wear complimentary contact lenses to spectacle-only wearing patients while selecting their eyewear positively impacts their perceptions of the selection process and provides the opportunity to grow practice revenue via greater amounts spent on spectacle purchases. In addition, the individuals who elected to wear contact lenses while selecting their eyewear were more likely to pursue a contact lens fitting and to consider wearing contact lenses in addition to their spectacles, providing further opportunity for increased practice revenue from these fees.

A significantly higher proportion of the test subjects who wore contact lenses while selecting their eyewear reported that they could see themselves extremely clearly or very clearly when compared with the control subjects who were not wearing contact lenses. While not statistically significant, the proportion of test subjects reporting that they could see the details of each frame extremely clearly or very clearly was also higher than those in the control group. These results are consistent with those from the previous study conducted in the United Kingdom; however, in that study the specific responses for eyewear selection were not reported [10]. While some technology is now available to digitally aid in spectacle frame selection, it is unfortunate that many patients, particularly those with greater degrees of ametropia, are unable to properly assess their appearance while trying on the frames as a result of being refractively uncorrected.

Also consistent with the previous study conducted in the United Kingdom, the test subjects who wore contact lenses while selecting their eyewear spent significantly more (20%) on their optical eyewear as compared with the control subjects, offering a considerable opportunity for growing practice revenue [10]. These findings support the belief that allowing patients to wear contact lenses during the frame selection process provides them with an enhanced experience, greater degree of confidence and enables them to more accurately assess the subtle features of higher quality frames and their own appearance wearing those frames, and that this can result in a greater total amount being spent on

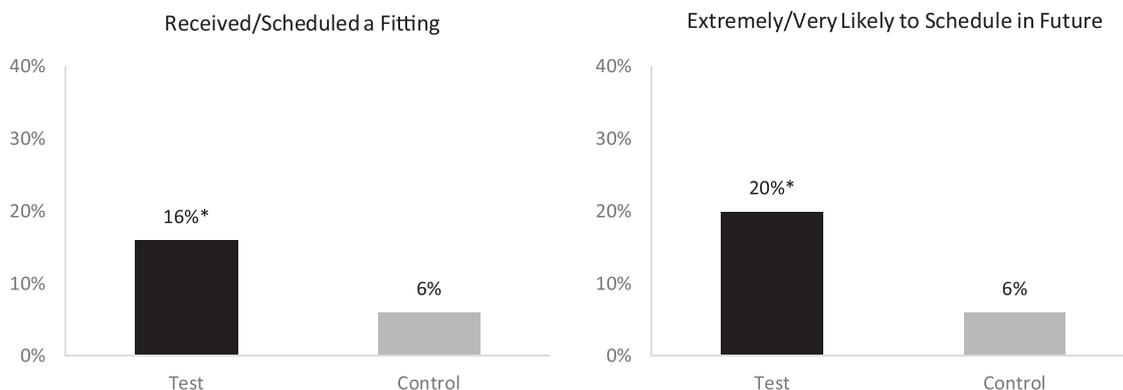


Fig. 2. CL Fitting Behavior.

\*/\* indicates significant difference at the 95/90% confidence level.

their eyewear. Overall satisfaction with the in-office contact lens wearing experience was extremely high, an important result for future patient loyalty in optometric practice [3].

Offering complimentary contact lenses to wear in office also offers a potential growth path for the contact lens category. In this research project 63% of subjects in the test group accepted the trial, with only 37% declining the opportunity to wear contact lenses during their eyewear selection. One of the reasons that is frequently cited for ametropes not choosing to try contact lenses is the anxiety associated with something touching their eye [13,14]. Approximately one quarter of those who declined the trial reported that this was because they had a fear of lens insertion, with a further 14% responding that it was because they had bad experiences with contact lenses in the past; however, the most frequently cited reason for not trying contact lenses was a lack of interest because they were happy in their glasses and did not want to change their means of vision correction.

Providing the opportunity to wear complimentary contact lenses resulted in a significant interest in contact lens wear, among a group that may not otherwise have shown an interest. Many took immediate action, receiving and/or scheduling a contact lens fitting exam that day or were likely to consider scheduling one in the future. Specifically, the subjects who accepted the opportunity to try contact lenses and wear them while selecting their eyewear were 2.5 times more likely to have either received or scheduled a contact lens fitting appointment as compared with the control subjects. Those test subjects who did not receive or schedule an appointment were three times more likely to consider a contact lens fitting in the future and two times more likely to consider wearing contact lenses within the next 12 months. It appears that offering a complimentary in-office limited time trial allows patients to move beyond their fears and concerns about trying contact lenses and this experience may lead them to view the category more favorably.

ECPs frequently fail to offer the option of contact lens wear to patients with presbyopia and astigmatism [7,15,16], often citing the additional chair time that can be associated with fitting these patients. Approximately two thirds of the subjects accepting the opportunity to wear contact lenses were forty years or older and 50% of the subjects required a presbyopic contact lens correction; 30% had astigmatism. All of these subjects were successfully able to wear contact lenses for their eyewear selection while in the practice, hopefully somewhat refuting these ECP concerns. Further, the average age of those accepting the trial was the same as those that did not and as that of the control group, suggesting that this was not a factor in deciding whether to accept the trial or in the responses provided to the questionnaire.

A large proportion of the contact lens wearing test group were lapsed contact lens wearers. As noted earlier, discontinuation from contact lens wear continues to be an issue [8]; however, a recent study has reported that for 71% of dropouts, no alternative contact lens or

management strategy had been tried for the patients [17]. Providing the opportunity for previously lapsed wearers to try contact lenses once again, even for just a limited time while selecting eyewear, allows an opportunity for them to experience new designs and materials that may not have been available to them when they discontinued contact lens wear previously.

A proactive approach by ECPs to offer contact lenses to current non-wearers, without them asking, has been proposed and evaluated previously, and has been reported to result in a higher proportion of contact lens fittings as compared with those that would occur in individuals with whom contact lens wear was not suggested by the ECP (reactive) [18]. Interestingly in this earlier study, the proportion of subsequent successful fits in the proactive and reactive groups was not found to be significantly different. Many ECPs may not be promoting contact lens wear to their patients because they feel that this could be perceived as being forceful, while patients could be reluctant to ask about contact lenses because they think that if they were to be good candidates, their ECP would be suggesting this option. This communication gap relating to the attributes of contact lens wear and the contact lens wearer will result in fewer opportunities for prospective good candidates for contact lens wear. Providing a simple opportunity to try contact lenses following a more understated approach, using the EASE method [10], provides a tremendous potential for growing a contact lens practice for optometrists in the US. The experience provided during the office visit allows them to become aware of what otherwise may have been unanticipated advantages of contact lens correction, and the hope is that many of these individuals will go on to become long-term wearers. As with any program, it is recommended to track key metrics such as the number of spectacle patients offered *versus* accepted, total optical revenue, and number of new CL fits *versus* current office statistics.

The approach could also be used for spectacle-only patients who are motivated enough to ask for contact lenses, allowing them to experience contacts in a “real world” scenario, while selecting eyewear. Even if they do not go on to become contact lens wearers, patients will likely appreciate the benefits that wearing contact lenses can offer while selecting eyewear; in the current research project for those wearing contact lenses during eyewear selection, 86% reported that if the opportunity was available during their next selection experience they would be extremely, very, or somewhat likely to pursue this once more.

Contact lenses are viewed by some ECPs as being less profitable than spectacles; however, this belief is not supported by published evidence [10,19], and contact lens wearers can be considered to be of high net worth at many optometric practices. More frequent visits can result in higher lifetime profitability and it must be remembered that contact lens patients who also purchase spectacles and sunglasses can be much more profitable for offices than are spectacle-only patients.

It is important to recognize that the subjects in this research project

who elected to wear contact lenses while selecting eyewear did not undergo a complete contact lens fitting visit, although minimum safety assessments were conducted prior to any contact lens insertion and contact lenses were removed by a staff member before the subjects left the practice. The contact lens trial was positioned solely as an aid to the frame selection experience. In order to proceed with contact lens wear, a thorough ocular surface evaluation should be conducted to allow the ECP to consider any contraindications to longer term lens wear and to be able to fit and dispense the most appropriate contact lens design, material and modality of wear for the patient.

There are also some limitations to this research project. Specifically, it was only conducted in five offices in one US state and therefore the results may not be representative of the entire country or other countries; however, the offices chosen included both busy, urban practices and quiet, rural locations and subjects from a variety of socioeconomic levels were included. Additionally, the allocation to control and test groups was not randomized and the two phases were conducted sequentially. This design was specifically chosen to prevent possible confusion on the approach that was to be taken with the subjects electing to take part in the project, with the control phase conducted first. Further, although data were collected on the likelihood of scheduling a contact lens fit and considering wearing contact lenses in the upcoming year, there was no follow up on actual fits during this time. Regardless of these possible limitations, the results indicate that incorporating an “EASE” approach when patients are selecting eyewear can improve the overall satisfaction for the patient, with the added benefits of increased patient experience, loyalty, and opportunity to grow the practice with increased revenue from both spectacles and contact lens fits. Based on the study findings, ECPs may consider adopting this process in their practice to improve the patient experience and grow their business.

## 5. Conclusions

Offering patients the chance to wear complimentary contact lenses during frame selection provides the opportunity for ECPs to better serve their patients. Based on the results of this research, not only can ECPs improve patient perceptions and office loyalty, they can anticipate higher price points on their spectacle lens sales and incremental contact lens purchases due to higher conversion rates, thus growing their business.

From a patient perspective, this controlled environment and limited timeframe seem to quell many concerns about wearing a contact lens. Patients who have never tried contact lenses before can rely on the professional expertise of the ECP/staff for insertion and removal and focus solely on the enhanced experience. Previous contact lens wearers are able to experience a newer technology that may convince them to

re-enter the category.

## Acknowledgements

Thank you to the 5 participating offices in the Midwest United States who wish to remain anonymous. Additionally, the authors wish to acknowledge Dr. Kathy Dumbleton for her contributions to this manuscript. The work was funded by Johnson & Johnson Vision Care, Inc which is where the majority of the authors work. There was no grant, government, or any other funding.

## References

- [1] S. Mortazavi, M. Kazemi, A. Shirazi, A. Aziz-Abadi, The relationships between patient satisfaction and loyalty in the private hospital industry, *Iran J Public Health* 38 (2009) 60–69.
- [2] E.A. Platonova, K.N. Kennedy, R.M. Shewchuk, Understanding patient satisfaction, trust, and loyalty to primary care physicians, *Med Care Res Rev* 65 (2008) 696–712.
- [3] T. Van Vuuren, M. Roberts-Lombard, E. Van Tonder, Customer satisfaction, trust and commitment as predictors of customer loyalty within an optometric practice environment, *South Afr Bus Rev* 16 (2012) 81–96.
- [4] F.M. Smith, J. Kirchner, W.D. West, Creating patients for life, *Optometry-J Am Optometric Assoc* 79 (2008) 603–612.
- [5] F.M. Smith, J. Kirchner, W.D. West, Creating patients for life, *Optometry-J Am Optometric Assoc* 79 (2008) 525–527.
- [6] L. Subbaraman, In focus with current contact lens materials and designs, *Contact Lens Spectrum* 32 (2017) 22–25 37, 55.
- [7] P.B. Morgan, C.A. Woods, I.G. Tranoudis, M. Helland, N. Efron, L.W. Jones, et al., International contact lens prescribing in 2017, *Contact Lens Spectrum* 33 (2018) 28–33.
- [8] K. Dumbleton, C.A. Woods, L.W. Jones, D. Fonn, The impact of contemporary contact lenses on contact lens discontinuation, *Eye Contact Lens* 39 (2013) 93–99.
- [9] A. Sulley, G. Young, C. Hunt, S. McCreedy, M.T. Targett, R. Craven, Retention rates in new contact lens wearers, *Eye Contact Lens* 44 (Suppl. 1) (2017) S273–S282.
- [10] N.P. Atkins, S.L. Morgan, P.B. Morgan, Enhancing the approach to selecting eyewear (EASE): a multi-centre, practice-based study into the effect of applying contact lenses prior to spectacle dispensing, *Cont Lens Anterior Eye* 32 (2009) 103–107.
- [11] N. Thite, L. Shinde, P. Sawant, A. Shinde, M. Ghai, M. Kharat, et al., Proactive contact lens prescribing – which approach is more effective? *Cont Lens Anterior Eye* (2018).
- [12] W. West, The 10 habits of highly successful optometrists, *Optometry* 82 (2011) 322–325.
- [13] G. Hutchison, Consumer and practitioner attitudes to contact lenses, *Optician* 221 (2001) 17–21.
- [14] H. Court, K. Greenland, T.H. Margrain, Evaluating patient anxiety levels during contact lens fitting, *Optom Vis Sci* 85 (2008) 574–580.
- [15] P.B.E. Morgan, Nathan Efron, Contact lens correction of presbyopia, *Cont Lens Anterior Eye* 32 (2009) 191–192.
- [16] G. Young, A. Sulley, C. Hunt, Prevalence of astigmatism in relation to soft contact lens fitting, *Eye Contact Lens* 37 (2011) 20–25.
- [17] A. Sulley, G. Young, C. Hunt, Factors in the success of new contact lens wearers, *Cont Lens Anterior Eye* 40 (2017) 15–24.
- [18] S.L. Morgan, N. Efron, The benefits of a proactive approach to contact lens fitting, *J Br Contact Lens Assoc* 19 (1996) 97–101.
- [19] M. Ritson, Which patients are more profitable? *Contact Lens Spectrum* 21 (2006).