ORIGINAL RESEARCH ORİJİNAL ARAŞTIRMA

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# Examining the Effect of Web-Based Training Given to Contact Lens Users: An Experimental Research

## Kontakt Lens Kullanıcılarına Verilen Web Tabanlı Eğitimin Etkisinin İncelenmesi: Deneysel Bir Araştırma

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**ABSTRACT Objective:** This research aims to evaluate the effect of web-based training given to contact lens users on their compliance with contact lens use. **Material and Methods:** The research is an experimental study consisting of intervention and control groups. The data were collected at 3 time points: on presentation to the hospital, 1 month after training, and 3 months after training. The intervention group consists of contact lens users who received web-based training, and the control group consists of individuals who received brochure training given in the clinic. The data were collected using individual characteristics form, contact lens application checklist, contact lens application information sheet and medical examination form. The data were analysed using chi-square and Wilcoxon tests. **Results:** The contact lens compliance level of individuals in the intervention group was found to be significantly higher compared to individuals in the control group. There were more contact lens-related complications in individuals in the control group compared with those in the intervention group, but the difference was not statistically significant. **Conclusion:** The present study revealed the high efficiency of the web-based training on the compliance in the contact lens wearers. Since this study is the first to investigate the effect of web-based training on the compliance of contact lens users, the developed web-based training program can be a guide for relevant health professionals.

**Keywords:** Contact lenses; web-based education; patient compliance

**ÖZET Amaç:** Bu araştırma, kontakt lens kullanıcılarına verilen web tabanlı eğitimin kontakt lens kullanımında uyumuna etkisini değerlendirmeyi amaçlamaktadır. **Gereç ve Yöntemler:** Araştırma girişim ve kontrol gruplarından oluşan deneysel bir çalışmadır. Veriler üç zaman aralığında hastaneye başvuru sırasında, eğitimden 1 ay sonra ve eğitimden 3 ay sonra toplandı. Girişim grubunu web tabanlı eğitim alan kontak lens kullanıcıları, kontrol grubunu ise klinikte verilen broşür eğitimini alan bireyler oluşturmaktadır. Veriler, bireysel özellikler formu, kontakt lens uygulama kontrol listesi, kontakt lens uygulama bilgi formu ve hekim muayene formu ile toplandı. Veriler, ki-kare ve Wilcoxon testleri kullanılarak analiz edildi. **Bulgular:** Girişim grubundaki bireylerin kontakt lens kullanımı uyum düzeyi, kontrol grubundaki bireylerle karşılaştırıldığında anlamlı derecede yüksek bulundu. Kontrol grubundaki bireylerde müdahale grubuna kıyasla kontakt lensle ilişkili komplikasyonlar daha fazlaydı ancak fark istatistiksel olarak anlamlı saptanmadı. **Sonuç:** Bu çalışma, kontakt lens kullanıcılarında uyum konusunda web tabanlı eğitimin yüksek verimliliğini ortaya koydu. Bu çalışma, web tabanlı eğitimin kontakt lens kullanıcılarının uyumuna etkisini araştıran ilk çalışma olduğundan, geliştirilen web tabanlı eğitim programı, ilgili sağlık profesyonellerine yol gösterici olabilir.

**Anahtar Kelimeler:** Kontakt lens; web tabanlı eğitim; hasta uyumu

Contact lenses are prostheses that can be placed on the outer surface of the eye, such as the cornea and sclera, and used for therapeutic purposes or correcting refractive errors.[1] The appearance of the people wearing glasses and associated discomfort of using them are the main reasons behind the higher preference given to contact lenses than glasses. As long as contact lenses are correctly used, they offer lifelong

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comfortable vision.[2,3] Contact lenses are classified on the basis of the type of their raw material, replacement schedule, and usage characteristics. Contact lenses are categorized as rigid and soft contact lenses depending on the raw materials used for their fabrication.[4,5] Soft lenses offer short adaptation time, extended daily wearing time (10-14 hours), and comfortable use. On the other hand, soft lenses have several disadvantages, including lack of optimally corrected vision, shorter life span of the product, and being prone to cracking and ripping on the edges that puts the user at the risk of getting an eye infection.[6,7]

A specific set of rules should be followed to use the contact lenses in a correct manner. The main objective behind the contact lens trainings is to ensure that the contact lens users follow the correct series of steps, appropriately select the contact lenses, have information on contact lens insertion and removal techniques, understand the lens care practices thoroughly, and can apply the newly learnt rules.[1,2,8] Different methods are available for educating the patients, including face-to-face training and web-based training, which are now gaining popularity, for training an individual or a group.[9] Because such individuals are given a non-comprehensive brochure, which poses a risk for complications. Materials like text, graphics, audio, video, animations, and various multimedia components enrich the education environment in the web-based training method, making it easy for the patients to learn according to their own learning styles. Web-based training also allows patients to repeat the training and access it whenever and wherever they want.[9-11] It is aimed to institutionalize web-based education moreover this research is the first study on the use of web-based training system for the contact lens users and thus, can contribute to the literature.

### Hypotheses of the Study

1. Individuals who receive web-based training on using the soft contact lenses have better compliance than those who are trained using brochures.

2. The rate of complications is lower in individuals who receive web-based training on using the soft contact lenses than in those who are trained using brochures.

## MATERIAL AND METHODS

### THE CONDUCT OF THE RESEARCH

This study was conducted as a randomized controlled study. This is an experimental study with the intervention and control groups. This research aimed to evaluate the effect of web-based training on the compliance in the users of soft contact lenses.

The research was conducted from November 13, 2019 to December 22, 2020 with users of the contact lenses who presented to the outpatient contact lens clinic of a university hospital. Data collection tools were used to obtain data from the subjects in the control group in the face-to-face interviews that were conducted by the researchers at the time of presentation to the hospital.

Data collection tools were administered to the subjects in the intervention and control groups in the face-to-face interviews at the time of their presentation to the hospital. The second measurement was done using the data collection tools that were administered to the groups who presented for follow-up check at 1 month via face-to-face interviews. The participants asked questions, if any, which were addressed in the session. The third measurement was made using data collection tools administered to the subjects who presented for follow-up at 3 months via face-to-face interviews. The flowchart of the study is given in Figure 1.

### THE POPULATION AND SAMPLE FOR THE RESEARCH

The study population consisted of individuals (n=90) who presented for the first time to the contact lens outpatient clinic of the department of ophthalmology of a university hospital in June 2019. The sample size was calculated by power analysis using the G Power (v3.1.7) (Henrich Heine University Düsseldorf Universitatsstr, Düsseldorf, Germany) software. With alpha reliability (α), effect size, and test power (1-β) as 0.05, 0.55, and 0.95, respectively, it was found that the sample size for this study should be at least n=37 for each group. Considering possible data loss during the study, 40 subjects were allocated to both the control and intervention groups. The study sample consisted of 80 individuals who volunteered to par-

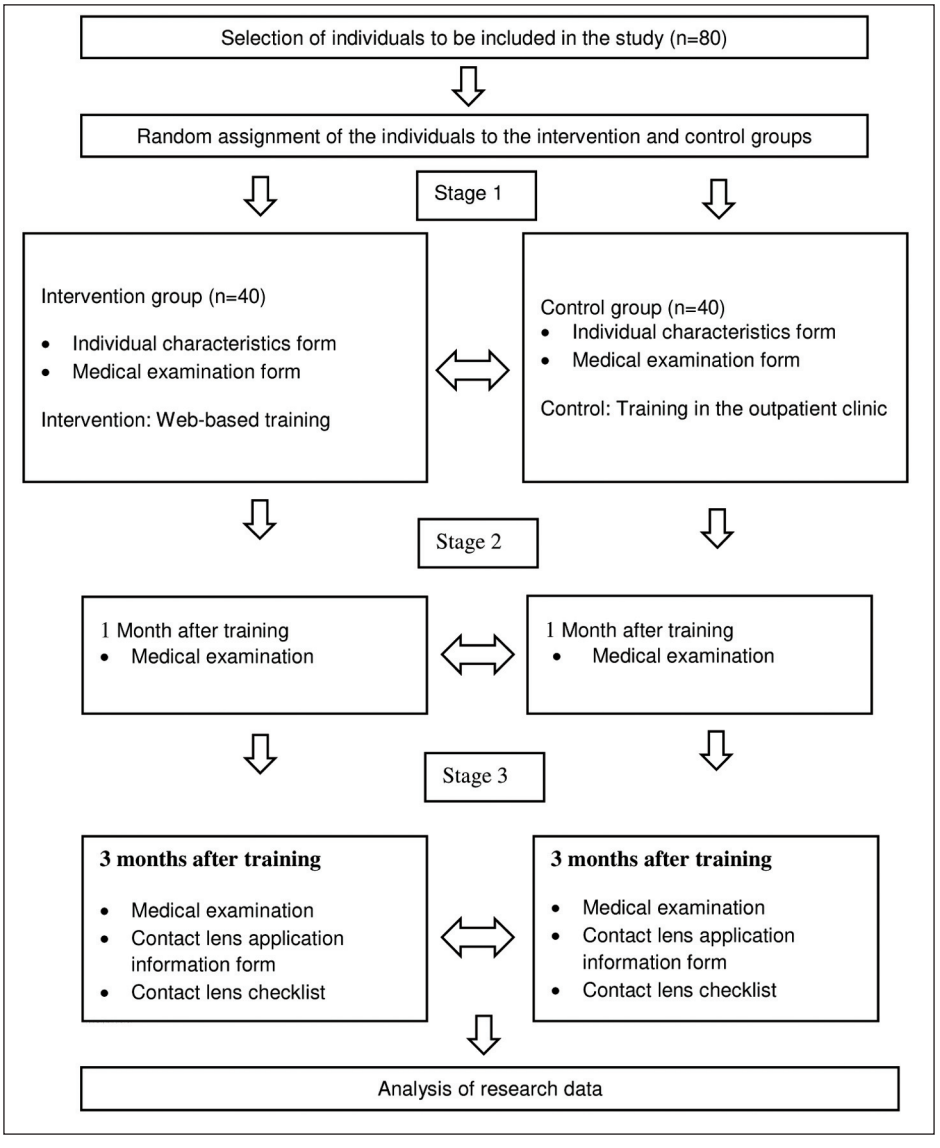


**FIGURE 1:** Flowchart of the research.

ticipate; did not have any sensory, cognitive, or auditory problems; were not diabetic; individuals prescribed soft contact lenses and came for regular eye check-up's. Individuals who met these criteria during data collection and were willing to participate in the study were randomly assigned to the intervention and control groups. In the randomization process, the two groups were assigned as the intervention and control groups using a simple random order.

## ETHICAL STATEMENTS

Approval from the İstanbul Okan University Non-invasive Clinical Research Ethics Committee (date: October 30, 2019; no: 114), permission to written consent from the contact lens wear who agreed to participate were obtained. Participation was on a voluntary basis. Once the research was completed, the participants in the control group were given the website address and password to allow them to access the web-based training. The principles stated in the Declaration of Helsinki were followed in the research.

## DATA COLLECTION TOOLS

### Individual Characteristics Form

This form was a questionnaire consisting of eight questions based on the patients' age, sex, marital status, educational level, members of the household, rea-

son for using contact lenses, and previous training on contact lenses (if any), along with the number of member in their household and the person who took care of the contact lenses.

### Contact Lens Application Checklist

The form was designed as a 3-point Likert scale (1, inadequate; 2, partially adequate; 3, adequate) and consisted of 15 statements regarding the steps for soft contact lens application that was prepared by the researchers. The prepared checklist was shared with 5 eye doctors to seek their opinions. The content and steps were approved by the doctors. The study found that the checklist had a Cronbach's alpha reliability coefficient of 0.95.

### Contact Lens Application Information Sheet

The information sheet was created by the researchers and contained 11 questions about the complications subtitle experienced while wearing contact lenses, the severity of the complications, the actions taken to prevent the complications, the actions taken when complications occurred, the most difficult aspects of contact lens wear, the time spent wearing the contact lenses, and the practices used while wearing contact lenses.

### Medical Examination Form

The form, which was prepared by the ophthalmologists and researchers, included results of the visual acuity measurement, corneal examination, and conjunctivitis examination for individuals who presented for the follow-up sessions.

### The Web-Based Training on Contact Lenses

While designing the website, the researchers sought the opinion of ophthalmologists to create the educational content. Subsequently, a website (http://www.kontaktlensegitimi.com) was created using the services of a web designer. The website was designed to be accessible via an internet-connected computer, mobile phone, or tablet computer. The website offered different functionalities, including automatically starting the selected videos and was equipped with pause, fast-forward, rewind, volume control, and full-screen mode buttons. The content of the training was supported by the videos containing verbal information about the definitions, care of the lenses, instructions for the insertion and removal of soft contact lenses, key points to be noted while wearing contact lens, and the correct method for washing hands. The website was developed with a plain, easy-to-understand, and easy-to-use interface, taking into account the convenience of the users. A communication tab was created to allow the users to ask questions and share messages. The asked questions were sent to the researchers via an e-mail and they responded to the queries via an e-mail. After the content was created, the website was tested with three regular users of lenses who were not in the intervention or control group. No changes or adjustments were made in the website after the pilot application. The steps of the contact lens education on the website were shown in images 1-6 (Figure 2).

### Brochure-Based Contact Lens Education

The brochure was prepared by the contact lens outpatient clinic of the department of ophthalmology and has been used since 2012. The training was given using a brochure containing information on the use of contact lenses. The brochure is eight pages long and covers the definition of contact lenses, hand hygiene, contact lens insertion and removal, and contact lens care. The contact lens nurse, who has been working in the contact lens polyclinic for 30 years, gave face-to-face and one-on-one practical training to the cases and their relatives. At the end of the training, participants were given a brochure on the use of contact lenses. The people in this group were examined at the first and third month follow-up examinations and the forms were completed and handed over at a personal meeting. After each application, individuals trainings were repeated on topics they needed and wondered about, and questions were answered. They were given time to ask questions and express their concerns.

## DATA ANALYSIS

The data were analysed by a statistician using the SPSS (IBM, Armonk, NY, USA). Descriptive variables included in the study were expressed as mean and standard deviation, while the categorical variables were expressed as frequency and percentage.

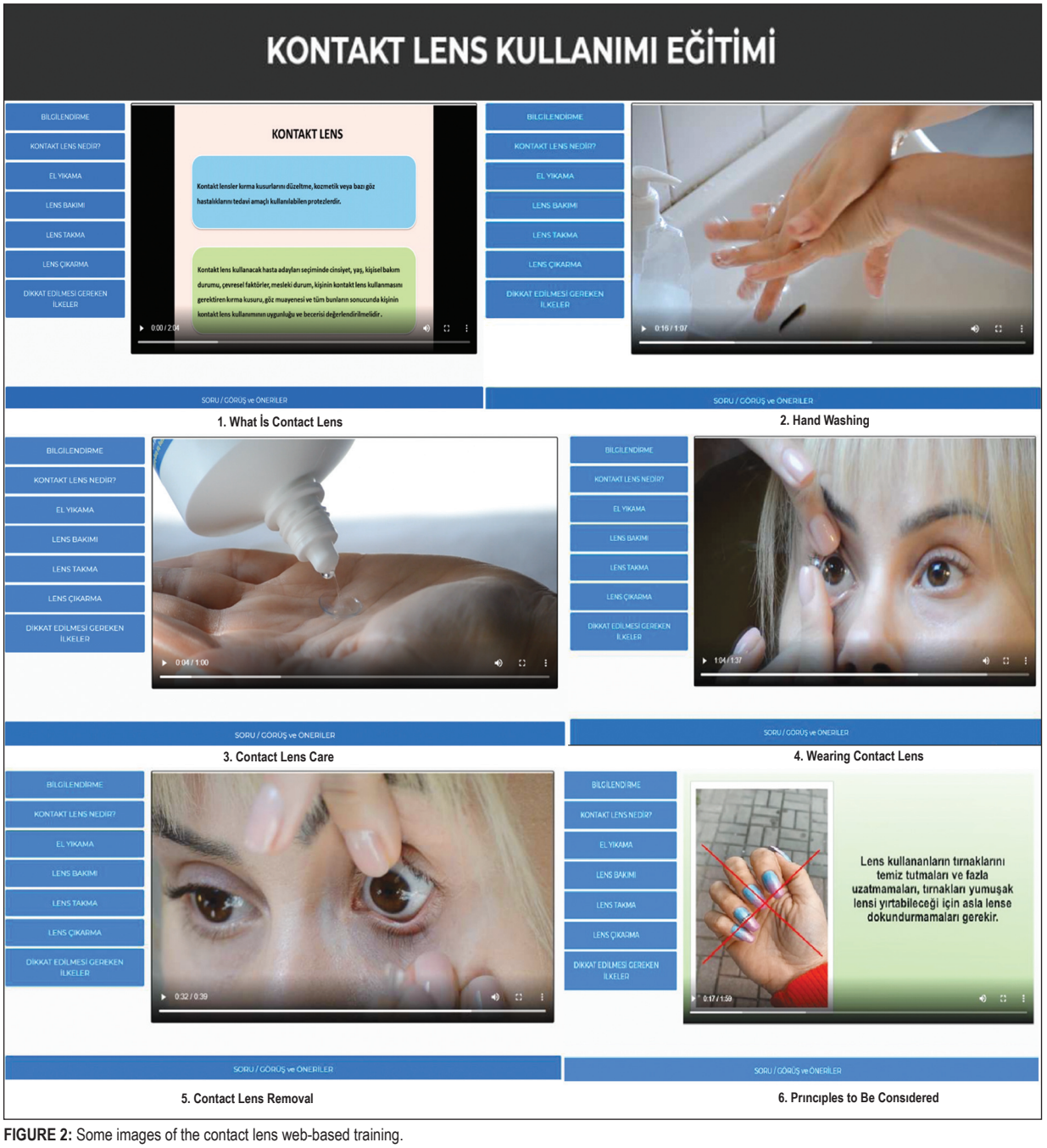


**FIGURE 2:** Some images of the contact lens web-based training.

The categorical data were analysed using the chi-square test. In the dependent groups, pairwise comparisons were performed using the Wilcoxon test.

### STUDY LIMITATIONS

The findings of the research are limited to the individuals who participated in the study.

## RESULTS

A majority of the subjects in the intervention and control groups was women, single, lived with their families, and had undergraduate degrees. Furthermore, 45% participants in the intervention group were aged 21-30 years and 45% participants in the control group

were aged 31-40 years. There were no statistically significant differences in the sociodemographic characteristics (age, gender, marital status, and level of education) between the participants in the intervention and control groups (p>0.05).

There was no significant difference between the intervention and control groups in terms of the aspects related to wearing contact lens (reason for using contact lenses, person in charge of contact lens care, access to information about using contact lenses, and having difficulties in affording contact lenses; p>0.05). Moreover, 81.25% participants used contact lenses for correcting refractive errors.

## RESULTS ON CONTACT LENS COMPLIANCE

The participants' compliance with the recommended practices for wearing contact lenses was scored by the nurse at the outpatient clinic using the checklist prepared by the researchers. The comparison of the scores of the intervention and control groups revealed a statistically significant difference in all the points mentioned in the checklist (p<0.001). The intervention group scored higher than the control group in all the practices for wearing contact lenses (Table 1).

Similarly, the comparison of the participants' method of wearing contact lens showed a significant difference between the intervention and control groups in terms of facing issues while wearing (p<0.001), using (p<0.01), and cleaning (p<0.01) the contact lenses. The participants in the intervention group were better in complying with the recommended practices than the control group (Table 2).

There was no statistically significant difference between the intervention and control groups in terms of contact lens-related complaints (p>0.05), severity of complications (p>0.05), frequency of complications (p>0.05), and actions taken to resolve complications (p>0.05).

## RESULTS ON CONTACT LENS-RELATED COMPLICATIONS

The participants were examined by an ophthalmologist on their first visit and after 1 and 3 months of their first visit. The results are mentioned in Table 3. The result of examinations after 3 months showed no significant difference between the intervention and control groups in terms of contact lens-related complications (p>0.05) (Table 3).

**TABLE 1:** Adaptation behaviors in contact lens users for intervention and control groups.

| Checklist statements | Intervention | | Control | | Analysis | |
|---|---|---|---|---|---|---|
| (1-inadequate 2-partially adequate 3-adequate) | $\bar{X}$ | SD | $\bar{X}$ | SD | z | P* |
| Washed hands in accordance with hand-washing instructions | 2.98 | 0.58 | 2.62 | 0.54 | -3.50 | **0.00** |
| Carefully removed the contact lens from its case | 2.98 | 0.15 | 2.72 | 0.45 | -2.88 | **0.00** |
| Placed the contact lens on the tip of the index finger facing upward | 2.93 | 0.26 | 2.23 | 0.66 | -4.36 | **0.00** |
| Held the lower eyelid down using the middle finger of the same hand | 2.93 | 0.26 | 2.10 | 0.63 | -4.82 | **0.00** |
| Used the middle finger of the non-dominant hand to pull the upper eyelid upward | 2.90 | 0.30 | 2.00 | 0.67 | -4.73 | **0.00** |
| Gently placed the contact lens on the eye | 2.85 | 0.36 | 1.93 | 0.65 | -4.71 | **0.00** |
| Gently released the upper eyelid and closed the eyes | 2.78 | 0.42 | 1.85 | 0.70 | -4.53 | **0.00** |
| Kept the eye closed for a few seconds and gently massaged it to direct the contact lens to the right position | 2.73 | 0.45 | 1.65 | 0.73 | -4.68 | **0.00** |
| To remove the lens, pulled the eyelid down using the middle finger of the hand | 2.70 | 0.46 | 1.93 | 0.69 | -4.28 | **0.00** |
| Used the index finger to slide the contact lens down from the center of the eye | 2.58 | 0.50 | 1.70 | 0.72 | -4.39 | **0.00** |
| Gently pinched the contact lens off the eye using the thumb and index fingers | 2.72 | 0.45 | 1.60 | 0.67 | -5.04 | **0.00** |
| Gently rubbed the contact lens back and forth with solution for 20 seconds | 2.65 | 0.53 | 1.70 | 0.75 | -4.23 | **0.00** |
| Thoroughly rinsed the contact lens back and forth | 2.57 | 0.54 | 1.70 | 0.75 | -4.05 | **0.00** |
| Rinsed the contact lens case | 2.53 | 0.50 | 1.68 | 0.73 | -4.14 | **0.00** |
| Filled the contact lens case with fresh solution and placed the contact lens in the case | 2.88 | 0.33 | 2.15 | 0.73 | -4.02 | **0.00** |
| Total points | 2.77 | 0.23 | 1.97 | 0.48 | -5.23 | **0.00** |

*Wilcoxon test run; SD: Standard deviation.

**TABLE 2:** Comparison of the intervention and control groups in terms of recommended practices of contact lens wear.

| | | Intervention | | Control | | Analysis |
|---|---|---|---|---|---|---|
| | | n | % | n | % | $\chi^2$/P* |
| Challenging issues in contact lens wear | Forgetting to wash your hands | 1 | 2.0 | 4 | 4.7 | $\chi^2$=1.22 |
| | Inserting contact lenses | 11 | 21.6 | 25 | 29.1 | **p=0.00** |
| | Removing contact lenses | 15 | 29.4 | 35 | 40.7 | |
| | Cleaning contact lenses | 10 | 19.6 | 17 | 19.8 | |
| | Others | 14 | 27.5 | 5 | 5.8 | |
| Time taken to insert contact lenses | <1 minute | 7 | 17.5 | 3 | 7.5 | $\chi^2$=22.37 |
| | 1-3 minutes | 22 | 55.0 | 10 | 25.0 | p=0.09 |
| | 3-5 minutes | 7 | 17.5 | 18 | 45.0 | |
| | 5-7 minutes | 4 | 10.0 | 9 | 22.5 | |
| Time taken to remove contact lenses | <1 minute | 5 | 2.5 | 9 | 22.5 | $\chi^2$=1.36 |
| | 1-3 minutes | 19 | 47.5 | 1 | 2.5 | p=0.15 |
| | 3-5 minutes | 10 | 25.0 | 2 | 5.0 | |
| | 5-7 minutes | 6 | 15.0 | 13 | 32.5 | |
| | Others | - | - | 22 | 55.0 | |
| Contact lens wearing time | 3-5 hours | 1 | 2.5 | - | - | $\chi^2$=9.32 |
| | 6-8 hours | 23 | 57.5 | 7 | 17.5 | p=0.40 |
| | 9-11 hours | 11 | 27.5 | 5 | 12.5 | |
| | 12-14 hours | 5 | 12.5 | 17 | 42.5 | |
| | Others | - | - | 11 | 27.5 | |
| Noncompliance with recommended practices | Swimming with contact lenses | 1 | 2.6 | 14 | 9.3 | $\chi^2$=6.25 |
| | Showering with contact lenses | 9 | 23.1 | 26 | 17.2 | **p=0.02** |
| | Using contact lenses longer than recommended | 4 | 10.3 | 19 | 12.6 | |
| | Not using the recommended lens solution | 6 | 15.4 | 21 | 13.9 | |
| | Slepping with contact lenses | 3 | 7.7 | 32 | 21.2 | |
| | Applying contact lenses without washing hands | 3 | 7.7 | 10 | 6.6 | |
| | Lens cleaning problems | 3 | 7.7 | 18 | 11.9 | |
| | Other | 4 | 10.3 | 7 | 4.6 | |
| Cleaning lenses | Never | 31 | 77.5 | 13 | 32.5 | $\chi^2$=11.84 |
| | 1-3 times a month | 9 | 22.5 | 10 | 25.0 | **p=0.03** |
| | Once a week | - | - | 10 | 25.0 | |
| | Twice a week | - | - | 2 | 5.0 | |
| | Every other day | - | - | 5 | 12.5 | |

Percentages are within the group. *Chi-square test.

## DISCUSSION

Women constituted a majority of the participants in the intervention and control groups of this study that was comprised of users of contact lenses. Similarly, have also reported that a greater proportion of lens wearers are women.[12-14] The present study is consistent with this finding. The intervention and control groups did not differ from each other in terms of the characteristics related to wearing contact lenses as most participants used contact lenses for correcting refractive errors. Contact lenses were used more often for correcting refractive errors than for cosmetic reasons. The results presented by researcher are in accord with our findings.[13,15] Based on the results of the present and previous studies, it can be stated that the contact lens wearers mainly use lenses to correct refractive errors.

Analysis of the results regarding the participants' compliance with appropriate contact lens wearing practices showed that the patients in the intervention group achieved almost full scores in all their contact lens-related practices, and there was a significant difference between the studied groups.

**TABLE 3:** Comparison of the intervention and control groups in terms of contact lens-related complications.

| | | Intervention | | Control | | Analysis |
|---|---|---|---|---|---|---|
| | | n | % | n | % | $\chi^2$/P* |
| Complications | | | | | | |
| Medical Examination-1 | Conjunctiva normal | 40 | 100 | 40 | 100 | - |
| | Cornea normal | 40 | 100 | 40 | 100 | |
| Complications | | | | | | |
| Medical Examination-2 | Conjunctiva normal | 40 | 100 | 39 | 97.5 | - |
| | Hyperemia | - | - | 1 | 2.5 | |
| | Cornea normal | 40 | 100 | 40 | 100 | |
| | Contact lens normal | 40 | 100 | 27 | 67.5 | |
| | Deposit on lens | - | - | 10 | 25.0 | |
| | Scratches on lens | - | - | 3 | 7.5 | |
| Complications | | | | | | |
| Medical Examination-3 | Conjunctiva normal | 37 | 97.5 | 23 | 57.5 | $\chi^2$=2.18 |
| | Hyperemia | 3 | 7.5 | 12 | 30.0 | p=0.53 |
| | Chemosis | - | - | 1 | 2.5 | |
| | Giant papillary conjunctivitis | - | - | 4 | 10.0 | |
| | Contact lens normal | 26 | 65.0 | 9 | 22.5 | $\chi^2$=2.07 |
| | Deposit on lens | 11 | 27.5 | 14 | 35.0 | p=0.72 |
| | Contact lens tearing | 3 | 7.5 | 17 | 42.5 | |

*Chi-square test.

This result may be attributed to the videos provided in the web-based training that described each step of the recommended practices, the option of revising the training content, and a more appealing structure with audio-visual materials.

Analysis of the participants' contact lens-related behaviour showed that fewer people in the intervention group experienced problems with contact lenses compared with those in the control group. Additionally, a high number of participants in the intervention group paid attention to the rules that were to be followed to prevent complications. The fact that participants in the intervention group experienced fewer difficulties in contact lens wear suggests that web-based training is more effective than the brochure-based training owing to its audio visual aspects.

Studies involving contact lens wearers have reported several noncompliant behaviours, including inadequate hand hygiene practices, sleeping with lenses, forgetting to remove lenses, wearing lenses longer than the recommended time, showering while wearing contact lenses, inadequate lens care, failure to replace the lens solution, and failure to replace the lens case.[16-20] Bui et al. reported that 93% contact lens wearers use contact lens care products and among them, 82% users always use the same lens care solution. The main reason behind this trend is the high cost of the recommended lens solutions.[13] Noncompliant behaviour observed in the present study is similar to the reported in the literature. Noncompliance regarding contact lens care practices causes numerous complications, including the loss of vision. The presence of less instances of noncompliant behaviour in the intervention group can be attributed to the effect of web-based training. These results confirm the second hypothesis of the study.

The present study found a few contact lens-related complications, such as hyperaemia, contact lens deposits, lens scratching, lens ripping, chemosis, giant papillary conjunctivitis, and corneal foreign body. Other complications found in the literature reviews include contamination of the lenses, lens cases, and lens care solution bottles; keratitis; giant papillary conjunctivitis; allergic conjunctivitis; dry eye;

corneal infiltrates and neovascularization; lens abrasion; lens ripping; wearing lenses inside out; deposits on the lenses; and loss of vision.[14,21-23] The results of the present study are similar to those in the literature.

Although the examinations of the patients at 3 months revealed fewer complications in the intervention group, there was no significant difference in complications between the groups; thus, the third hypothesis of the study was not confirmed. A significant number of contact lens-related complications are related to the lens materials used. Considering that the participants in the study used lenses made from the standard materials, the complications that occurred in both groups may be attributed to the lens material. The frequencies of lens scratching and ripping were higher in the control group that may be due to the lack of information on this topic in the brochure.

## CONCLUSION

The results of this study showed that web-based training was effective in increasing contact lens adaptation of individuals who started using soft contact lenses. Although there was a numerical difference in terms of complications related to contact lens use, the result did not reach statistical significance. Since it is the first study conducted with individuals who started using contact lenses, the research results and the developed web-based training program can guide relevant health care professionals. This research, which reveals the importance of education, contributes to the literature by adding a new one to the web-based education examples that are widely used today. In line with these results; it is recommended to expand and develop web-based education in contact lens education, to place the web-based contact lens use training program on the websites of health institutions, and to reach more people through devices such as televisions and computers in the waiting rooms of contact lens polyclinics.

### *Source of Finance*

*During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.*

### *Conflict of Interest*

*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

### *Authorship Contributions*

***Idea/Concept:*** *Güneş Çevik Akkuş, Sevim Ulupınar;* ***Design:*** *Güneş Çevik Akkuş, Sevim Ulupınar;* ***Control/Supervision:*** *Sevim Ulupınar;* ***Data Collection and/or Processing:*** *Güneş Çevik Akkuş;* ***Analysis and/or Interpretation:*** *Güneş Çevik Akkuş, Sevim Ulupınar;* ***Literature Review:*** *Güneş Çevik Akkuş;* ***Writing the Article:*** *Güneş Çevik Akkuş, Sevim Ulupınar;* ***Critical Review:*** *Sevim Ulupınar;* ***References and Fundings:*** *Güneş Çevik Akkuş;* ***Materials:*** *Güneş Çevik Akkuş.*

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