Survey on Soft Contact Lens Care in

Female Students of KSU

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Abstract

Purpose: This cross sectional study was conducted to find out the awareness and practice of soft contact lens wear and care among female students of King Saud University.

Method: The data was collected from the soft contact lens users through a structured questionnaire distributed to 100 female students of King Saud University, Riyadh. This survey was based on the basic practice care in soft contact lens that is related to the replacement frequency, steps in hygiene and storage case of the soft contact lens.

Results: The female students of age range 19-25 years participated in this study. It was found that out of 100 female students, 68% were using cosmetic soft contact lens. 73% of subjects reported to renew soft contact lenses after every 3 months. Only 59% students used to wash their hands before wearing soft contact lens and only 52% used to clean their lens with the solution before inserting and storing. Only 31 participants reported that they clean their lens case weekly. The students have awareness regarding contact lens hygiene but little awareness toward lens case hygiene was found.

Conclusion: The majority of participants were aware about the cleaning and hygienic steps of contact lens care but most of them were unaware of contact lens case cleaning.

Keywords: Awareness, female students, soft contact lens care

1 Introduction

Soft contact lens users in developing countries has sharply increased specially in the last decade because of the huge amounts of choices available, not only in terms of
lens type and materials alone, but also the increased availability at large number of locations in the country at a much lower cost compared to the past [1]. Contact lenses are used to treat refractive error, keratokonus, anisometropia, nystagmus, unilateral aphakia and therapeutic purposes [2]. Soft contact lenses are getting popular among university students and younger populations, for the refractive error corrections along with improvement in aesthetic appearance.

The size of the global market of contact lenses is expected to reach 12,476.3 million US dollars by 2020, at a growth rate of 6.7% [3]. With the increasing number of contact lens usage, the number of complications due to contact lens wear is increasing. Many studies reported that ignorance of contact lens care leads to a serious ocular health problem for example dry eyes, giant papillary conjunctivitis, corneal edema, corneal ulcer, keratitis, corneal warpage and neovascularization [4-7]. Ocular health education especially knowledge in the correct and careful practice regarding contact lens wear can prevent complications resulting from wearer’s inappropriate behavior.

The aim of this study is to assess the awareness and the habits of soft contact lens wearer among King Saud University students about important aspects and guidelines toward soft contact lens care, through a questionnaire of basic practice care in soft contact lens.

2 Method

This cross sectional study design is based on the structured questionnaire survey, which includes information regarding soft contact lens wearer demographics, contact lens hygiene behaviors and attitudes toward soft contact lens care practice. This study was carried out in the year of 2017 at King Saud University in Riyadh and 100 female contact lens users (age range between 19-25 years) participated. Pregnant and therapeutic users of soft contact lenses were excluded in this study. Ethical approval from the Department of Optometry, CAMS, KSU, was taken before the distribution of the questionnaire. The questions were asked about contact lens type, duration of use, and hygiene. SPSS program was used for the statistical analysis of the data.

3 Results

The data for soft contact use is given in Table1. It was found that 68% female students wear cosmetic soft contact lenses. According to the mode of wear 23% KSU students wear daily disposable, 13% weekly disposable, 25% monthly, 26% six months disposable and 13% yearly disposable. Only 37% students were wearing less than 8 hours per day while 49% use them for 8-12 hours per day. Renewal of contact lens every 3 months was found 73%.
Table 1. Soft Contact Lens use among KSU female students (n=100).

<table>
<thead>
<tr>
<th>Soft contact lens users</th>
<th>Prescription 32%</th>
<th>Cosmetic 68%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of soft contact lens</td>
<td>Daily disposable</td>
<td>Weekly disposable</td>
</tr>
<tr>
<td></td>
<td>23%</td>
<td>13%</td>
</tr>
<tr>
<td>Duration of contact lens use</td>
<td>Less than 8 hours</td>
<td>8-12 hours</td>
</tr>
<tr>
<td></td>
<td>37%</td>
<td>49%</td>
</tr>
<tr>
<td>Renewal of contact lens every 3 months</td>
<td>Yes 73%</td>
<td>No 27%</td>
</tr>
</tbody>
</table>

The data for the knowledge about lens and lens case hygiene is given in Table 2. The frequency of hand washing was found only 59% before inserting contact lenses. The percentage of changing the lens, lens solution and lens case was found very low and given in Table 2.

Table 2. Knowledge about lens and lens case hygiene.

| Hand washing before wearing soft contact lens | Yes 59% | No 15% | Sometime 26% |
| Cleaning contact lens with solution before and after use | Yes 52% | No 11% | Sometime 37% |
| Cleaning of contact lens adhering strictly to the instructions | Yes 45% | No 12% | Sometime 43% |
| Frequency of cleaning the lens case | Weekly 31% | Monthly 51% | Every 6 months 15% | Annually 3% |
| Frequency of changing the solution in the lens case | Weekly 19% | Monthly 48% | Every 6 months 29% | Annually 4% |
| Replacement of lens case | Every 3 months 29% | More than 3 months 57% | Annually 12% | Never 2% |

4 Discussions

The more frequent use of soft contact lens by KSU female students was found for cosmetic purpose and same was observed in the Singapore study [8]. Most of the students were wearing contact lenses for 8-12 hours in a day. The percentage of wearing soft contact lenses for more than 12 hours in a day was found only 14% in this study however; this percentage was found lower when compared to medical students in Brazil (64%) [9].

It is very important to change the soft contact lenses according to schedule as set by the manufacture, because using the contact lens for more than scheduled time...
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predisposes to eye complications. Seventy three percent of the students in this study use to replace their soft contact lenses with new contact lenses as per the schedule according to the manufacture while the same was noted in a lesser percentage of students (47%) from Brazil [9]. Twenty seven percent of students in our study were not following the time schedule of replacing the soft contact lenses. A similar observation (a tendency to replace the lenses at intervals longer than prescriber’s recommendations) was reported by Coopersmith et al (1997) from New Jersey, USA [10]. Fifty-nine participants reported that they wash their hands before handling the contact lenses while in another study of medical students in Malaya, 90% of their participants wash their hands before handling the contact lens [11]. In this study 45% of participants clean the contact lenses adhering strictly to the instructions with rub and rinse technique before insertion. Same observation was obtained by Tajunisah et al. and they found 56.92% participants do both rub and rinse before storing. In our study 31% of participants reported cleaning their lens case weekly while in another study done in Malaya it was found that 79.3% students use to wash the contact lens cases daily [11]. It is absolutely vital to change the storage solution as there is always the possibility of contamination of pathogens [12, 13]. Moreover, when it is stored, multiplication of these pathogens and their further adherence to the contact lens makes the contact lens quite a good source for infection to the eyes upon putting them on. It is also important that the storage solution itself is sourced from sterile solutions that are supplied by manufacturers. Only 19% of KSU students change their solution. Finally regarding the replacement frequency of lens cases, 29% reported replacing lens cases within three months which is a low percentage and there should be more awareness about replacement of lens case.

5 Conclusion

Contact lens care is very important as it can affect the success of contact lens wear and also patient’s satisfaction. The lack of proper practice was found even in educated and knowledgeable consumers such as medical students that may increase the risk of complications associated with contact lens wear. We found that KSU students have significant knowledge about how to use contact lens but majority of them lack proper awareness regarding cleaning of contact lens case which can led to eye problems. Therefore, the knowledge about contact lens care should be increased by all contact lens providers so that the prevalence of eye complications will be reduced among the contact lens wearers.

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References


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