

## Compliance and Hygiene Behavior Among Females Soft Contact Lens Wearers in Tabuk City, 2018

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### ABSTRACT

**Introduction:** Contact lenses are widely used for various reasons in different populations, cosmetic, therapeutic, as well as for optical indication. Noncompliance to the practitioner's instructions on the use of contact lenses and care products is One of the major factors that causes contact lens complications, these complications include dryness of the eye, giant papillary conjunctivitis, corneal abrasion, corneal edema, corneal ulcer, keratitis and neovascularization

**Methods:** A cross-sectional study was conducted among females at Tabuk City, KSA. The questionnaire contained questions about demographic data. Items regarding the knowledge and practice toward Compliance and hygiene behaviors of contact lenses use. The analysis included descriptive statistics and graphs.

**Results:** A total 213 female in Tabuk city were included in the study. Most of them age between 20-30 years (106 participants). Majority (165) of the participants were college student, followed by (38 participants) were high school students. (35.3%) were use medical contact lens, 60 % of the medical contact lens were prescribe by ophthalmologist.

**Conclusion:** Steps such as education about proper use and sufficient care of contact lenses are required to improve the health states of the community and to avoid contact lenses hazard.

**Keywords:** Contact Lens; Tabuk; Saudi Arabia.

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### INTRODUCTION

Contact lenses are widely used for various reasons in different populations, cosmetic, therapeutic, as well as for optical indication. These contact lenses introduced into the market since 22 years. And since then, remarkable improvements in the contact lens materials manufacture have been achieved, aiming towards producing a highly effective, comfortable and complication free contact lens. In general, there are two versions of contact lenses; daily disposable contact lenses and reusable contact lenses. Nowadays, different types of contact lenses are available; rigid, soft and other contact lenses (Hybrid, Scleral, Hard/soft combination). Each of which has advantages and disadvantages. However, contact lenses, in general, have the leverage of being more comfortable, flexible and convenient besides offering more natural vision over conventional spectacles. Nevertheless, various reports have shown an increase rate of incidence of complications among users of contact lenses which necessitate the need to

investigate different variables that might attribute to this complications.<sup>1</sup>

One of the causes that lead to an infection and inflammation of cornea or conjunctiva by various types of microorganisms is improper use and insufficient care of contact lenses.<sup>2</sup>

Noncompliance to the practitioner's instructions on the use of contact lenses and care products is One of the major factors that causes contact lens complications, these complications include dryness of the eye, giant papillary conjunctivitis, corneal abrasion, corneal edema, corneal ulcer, Keratitis and neovascularization.<sup>2</sup> The Ocular health education especially Knowledge in the right and careful practice related to contact lens can prevent many problems that caused by wearing contact lenses. Person's conception regarding her own knowledge and practice of wearing contact lens can be assessed.<sup>3</sup> According to several epidemiological studies, there are many risk factors were

identified including sleeping while wearing CLs. The risk of microbial keratitis increased by about five-fold among subject who wear their CLs during sleep. In yet another study, CL wearers who developed CUs were found to wear CLs overnight. Swimming with CL was reported in more than one-third of CL wearers who suffered with CU.<sup>4</sup>

But still there is no research about this issue in Tabuk city that located in the northwestern of Saudi Arabia. So, this study aims to determine the level of compliance and hygiene behavior among females soft contact lens wearers in Tabuk city, 2018.

**METHODOLOGY**

A cross-sectional study was conducted among females at Tabuk City, KSA. The questionnaire contained questions about demographic data. Items regarding the knowledge and practice toward Compliance and hygiene behaviors of contact lenses use. The analysis included descriptive statistics and graphs.

**Ethical Consideration**

The study proposal was sanctioned by the ethical committee of the college. Study was explained to participant and informed consent was taken from the participant.

**Statistical Analysis**

The collected Data were entered and analyzed using the Statistical Package for Social Sciences (SPSS) statistical program version 19.

**RESULTS**

A total 213 female in Tabuk city were included in the study. Most of them age between 20-30 years (106 participants), 84 participants less than 20 years, 15 participants between 30-40 years, 7 participants More than 40 years. Majority (165) of the participants were college student, followed by (38 participants) were high school students. (Table 1)

Only 75participants (35.3%) were use medical contact lens, 60 % of the medical contact lens were prescribe by ophthalmologist and the remaining 40 % prescribe by optometrist. (Figure 1)

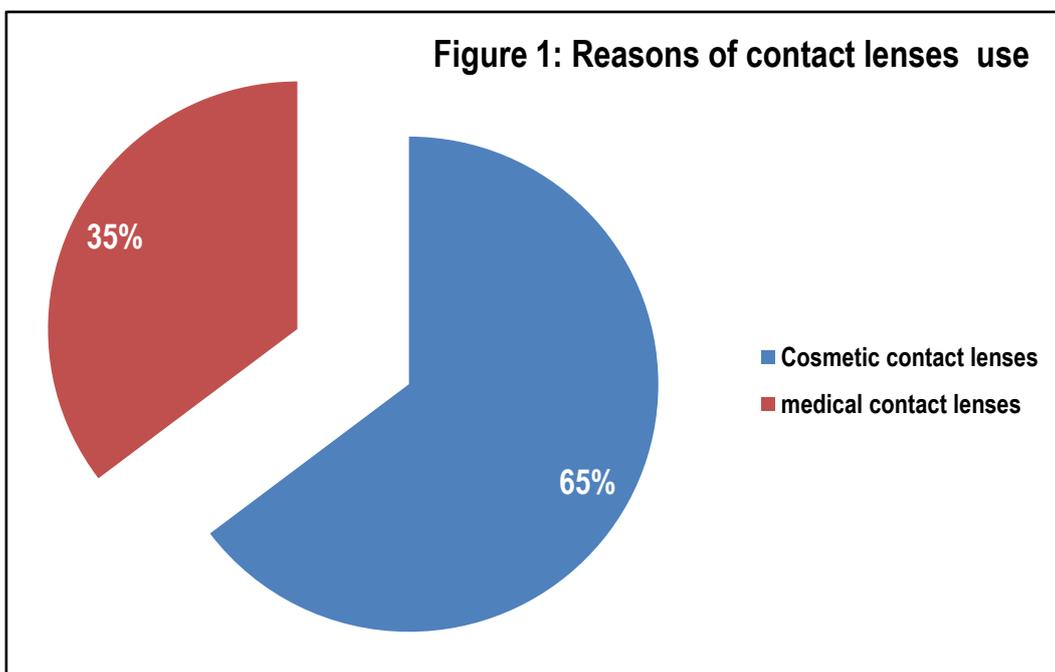
68 participants indicate a daily use of contact lens, regarding hygiene, 181 participants claimed that they wash hands before wear their lenses, 160 change the solution with every time they use the lenses, 157 participants change the lenses after Expiry date, minority (43 participants) wash lenses with tap water. (Figure 2) The study shown that 124 participants wash hands before removing lenses, 111 participants sterilize lenses with solution and only 36 participants wash lenses with tap water before storing. (Figure 3)

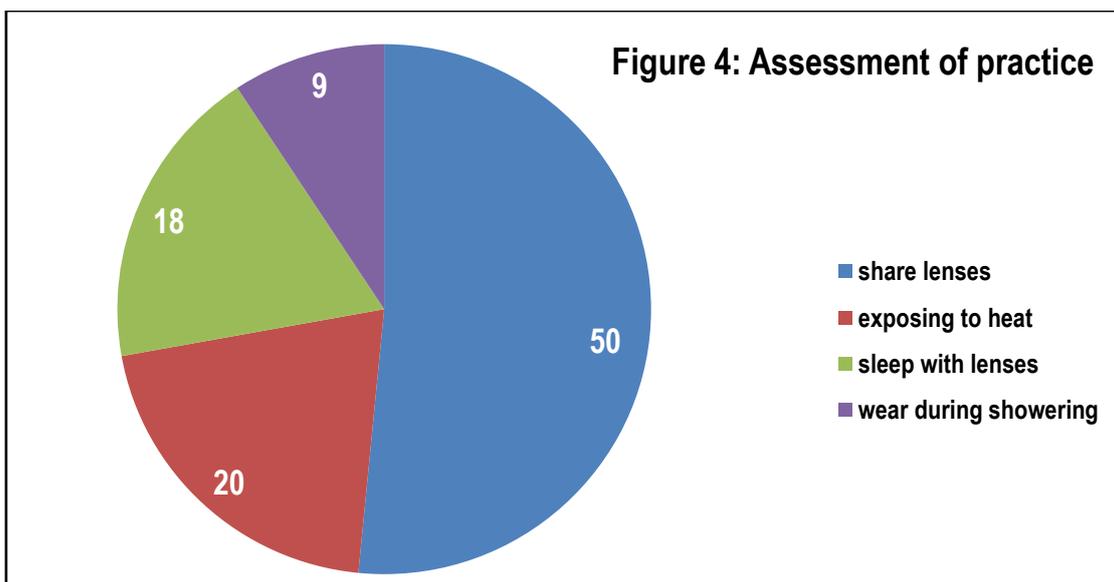
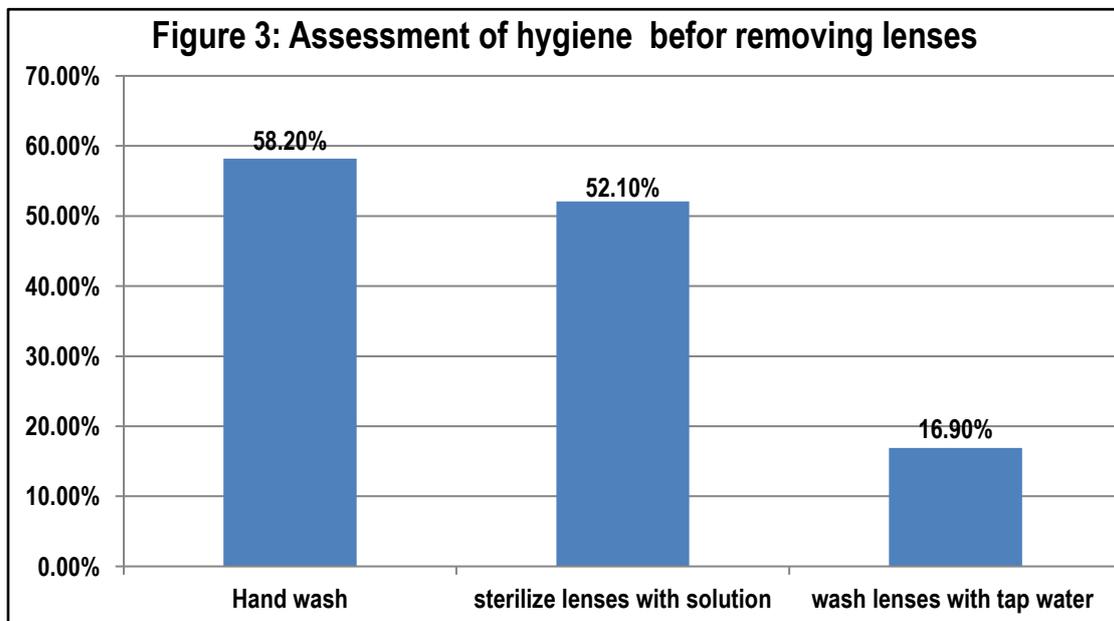
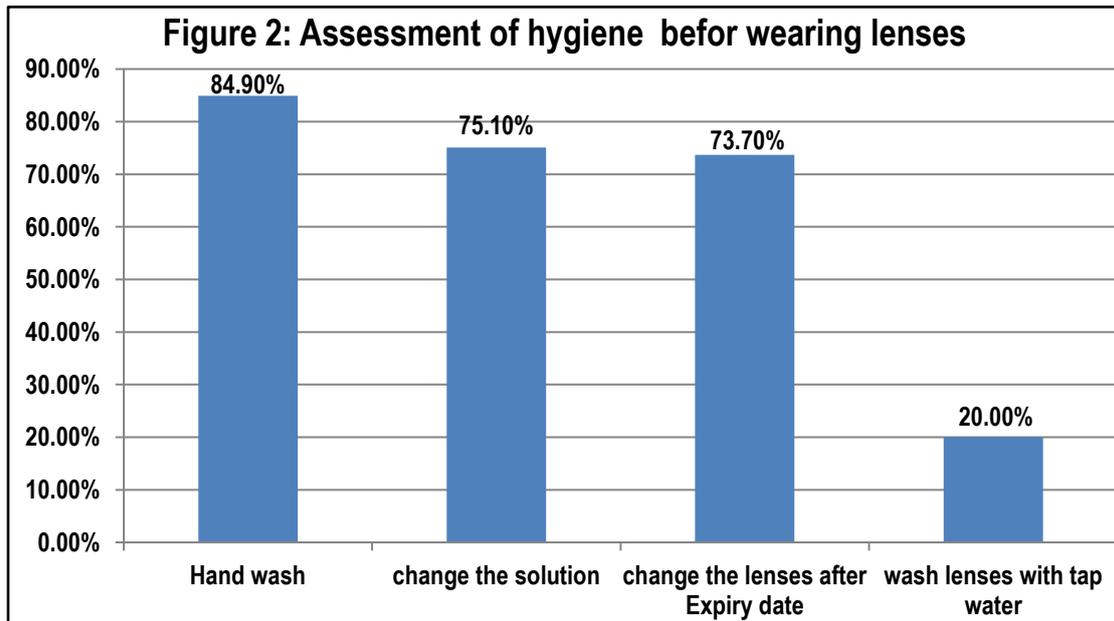
50 participants share lenses with others, 18 participants sleep without removing contact lenses, 20 participants exposing to heat, 9 participants wear contact lenses during showering.

39 participants (18.3%) report that they had eye complication related to contact lens usage as eye redness, itching, corneal ulcer and decrease vision.

**Table 1: Age groups and educational level of study participants**

Age	Total :- 213	Educational level.
Less than 20	84 (39.4%)	Primary school (1 participants)
20 – 30 years	106 (49.7)	Middle school (5 participants)
31- 40	15(7%)	High school (38 participants)
41 and more	7 (3.2%)	College (165 participants)
		Master (3 participants)





## DISCUSSION

Up to our knowledge there is no study about determined the level of compliance and hygiene behavior among females soft contact lens wearers in Tabuk city.

As shown in study carried by (Alessandro Abbouda et al) 14.5% of students did not wash their hands before handling contact lenses witch similar to our study were 15.1% did not wash their hands with similar complication related to miss use and bad hygiene which include redness, itching, and foreign body sensation.<sup>5</sup>

In our study 52.9 % sterilize lenses with solution which is less compared to other studies, as in study conducted by (Yee et al) and show 94.4% of the study participants sterilize their lenses with solution.<sup>6</sup>

Finally only 8 % of the study participants sleep without removing the contact lenses comparing to 18.9 % which reported in (Giri et al) study.<sup>7</sup>

## CONCLUSION

Steps such as education about proper use and sufficient care of contact lenses are required to improve the heath states of the community and to avoid contact lenses hazard.

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