Comparative Knowledge and Behavior of Contact Lens Care between Medical and Non-Medical Students

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Objective: *To compare knowledge and behavior of contact lens care between medical and non-medical students.*
Material and Method: *Cross sectional study. Participants consisted of 200 medical students (M) and 200 non-medical students (N) who wore contact lenses within the recent one year. A structured questionnaire was filled in by subjects.*
Results: *Approximately 50% of participants had been contact lens wearers for less than one year. The purposes of wearing lenses included vision correction (73.6%) and cosmetic (26.4%). Non-medical students wore color lenses significantly more than medical students. Non-medical students bought lenses from internet and markets significantly more than medical students did. For the knowledge component, the contact lens-related complications which participants can name were significantly different in both groups including allergic conjunctivitis (M: 73.2%, N: 61.3%), corneal abrasion (M: 58%, N: 36.7%), corneal ulcer (M: 61.6%, N: 45.7%), and corneal neovascularization (M: 29.8%, N: 18%). The behavior that participants had differed significantly in both groups were included rinsing lenses with tap water (M: 19.7%, N: 29.8%), and washing hands before handling lenses (M: 82.7%, N: 71%). The five common improper behaviors of lens care were similar in both groups and included wearing lenses longer than recommended, not changing lens storage solution daily, swimming while wearing lenses, using tap water for rising lenses and not washing hands before handling lenses.*
Conclusion: *Medical students had better knowledge and behavior of contact lens care than non-medical students. However, both groups of students still lacked adequate knowledge and were non-compliant with contact lens care instruction.*

Keywords: *Contact lens, Medical students, Non-medical students, Knowledge, Behavior*

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Nowadays the number of contact lens wearers has increased. Contact lenses are considered as medical devices and can be worn for many purposes such as corrective, cosmetic or therapeutic reasons. Convenience and aesthetics are generally encouraging factors for people who would like to avoid glasses or would like to change the appearance of their eye color. The increased availability of contact lens and affordable prices are the other factors to motivate the popularity particularly with the young population such as students and young working adults. However, non-compliance with prescribed regimens accounts for significant problems including ocular morbidity in the health care field[1-4]. Even the medical students who are considered educated users, were found using improper practices of contact lens care have been described[3]. To date, no studies have reported the difference between knowledge and behavior of contact lens care between the various fields of university students.

The purpose of the present study was to compare the knowledge and behavior of contact lens care between medical and non-medical students.

Material and Method

The study was a cross sectional study that enrolled study subjects from Thammasat University, Thailand. Study participants consisted of medical students and non-medical students who wore contact lenses within the last year. All participants aged between 16-30 years. The authors designed the structured questionnaire base on knowledge and behavior of contact lens care. The questionnaire was composed of series of closed-end questions, requiring the respondents to choose the response that best described their knowledge and compliance. Initially, the questionnaire was sent to the medical students. After we knew the number of medical students who wore

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contact lenses, non-medical students were enrolled by randomized method until the same number of population between both groups were reached. The non-medical students consisted of those who studied in the Faculty of Law, Faculty of Political Science, Faculty of Economics, Faculty of Social Administration, Faculty of Liberal Arts, Faculty of Commerce and Accountancy, Faculty of Journalism and Mass Communication, Faculty of Architecture and Planning, Faculty of Fine and Applied Arts. In accordance with the Declaration of Helsinki, this study was approved by the Thammasat University School of Medicine's Institution Review Board. Group comparisons were performed with the Chi-square test and Fisher's exact test using two-sided analysis. Chi-square test was used when the cell sizes were 20 or more. If the values were less than 20, Fisher's exact test was used.

Results

Characteristics of the study population (Table 1)

Among 622 medical students, 200 students (32.2%) had worn contact lenses while 200 from 374 of non-medical students (53.5%) had worn contact lenses. Two hundred students were prospectively enrolled in each group. Regarding participants who completed the questionnaire by themselves, some of them did not answer every question.

Gender

In the medical student group, the population consisted of 33.3% male and 66.7% female, compared with 34.7% male and 65.3% female in the non-medical

Table 1. Characteristics of study populations between the medical student group and the non-medical student group

	Medical student group n (%)	Non-medical student group n (%)	*p*-value
Sex			
Male	66/198 (33.3)	69/199 (34.7)	0.778
Female	132/198 (66.7)	130/199 (65.3)	
The purpose of wearing lenses			
Vision correction	143/197 (72.6)	147/197 (74.6)	
Cosmetic	54/197 (27.4)	50/197 (25.4)	0.648
How long had participant been a contact lens wearer?			
<1 year	95/199 (47.7)	108/196 (55.1)	
1-5 year	76/199 (38.2)	72/196 (36.7)	
>5 year	28/199 (14.1)	16/196 (8.2)	0.122
Type of lenses			
Soft	177/199 (89)	169/200 (84.5)	0.108
RGP	6/199 (3)	3/200 (1.5)	
Not known	16/199 (8)	28/200 (14)	
Replacing schedule			
Daily	53/192 (27.6)	28/197 (14.2)	0.014
Weekly	13/192 (6.8)	21/197 (10.7)	
Monthly	123/192 (64)	141/197 (71.6)	
Yearly	3/192 (1.6)	7/197 (3.5)	
Place to buy lenses (participants can choose more than 1 choice)			
Eye clinic	48/196 (24.5)	95/197 (48.2)	<0.001
Optical shop	165/196 (84.2)	121/197 (61.4)	<0.001
Market	3/196 (1.5)	17/197 (8.6)	0.001
Internet	7/196 (3.6)	24/197 (12.2)	0.001
Have you ever worn color lenses?			
Yes	63/195 (32.3)	83/191 (43.5)	0.024
No	132/195 (67.7)	108/191 (56.5)	
Have you ever worn big eye lenses?			
Yes	46/195 (23.6)	51/188 (27.1)	
No	149/195 (76.4)	137/188 (72.9)	0.430

student group. There was no significant difference between genders in either group (p = 0.778). Women were more commonly found to be contact lens wearers than men in both groups.

The purpose of wearing contact lenses

In the medical student group, 143 of 197 study subjects (72.6%) wore contact lenses mainly for vision correction while the 54 of 197 study subjects (27.4%) wore contact lenses mainly for cosmetic purpose. In the non-medical student groups, 147 of 197 study subjects (74.6%) wore contact lenses for vision correction and 50 of 197 study subjects (25.4%) wore contact lenses for cosmetic purpose. There was no significant difference between the purposes of wearing contact lenses for either group (p = 0.648).

How long had the participants been contact lens wearers?

In the medical student group, 95 of 199 study subjects (47.7%) had worn contact lenses for less than one year, 76 of 199 study subjects (38.2%) had worn contact lenses for 1-5 years and 28 of 199 study subjects (14.1%) had worn contact lenses for more than five years. In the non-medical student group, 108 of 196 study subjects (55.1%) had worn contact lenses for less than one year, 72 of 196 study subjects (36.7%) had worn contact lenses for 1-5 years and 16 of 196 study subjects (8.2%) had worn contact lenses for more than five years. The majority of the respondents had worn contact lenses for less than one year in both groups. There was no significant difference between the duration of the contact lens users for both groups.

Types of contact lenses

Among the medical student group, 177 of 199 study subjects (89%) wore soft contact lenses, 6 of 199 study subjects (3%) wore rigid gas-permeable (RGP) lenses, 16 of 199 study subjects (8%) did not know the type of contact lenses. Among the non-medical student group, 169 of 200 study subjects (84.5%) wore soft contact lenses, 3 of 200 study subjects (1.5%) wore RGP lenses and 28 of 200 study subjects (14%) did not know the type of contact lenses. The majority of participants wore monthly contact lenses in both groups. However, 27.6% of study subjects in the medical student group wore daily contact lenses compared with 14.2% in the non-medical student group. The medical students wore daily contact lenses significantly more than the non-medical students did (p = 0.014).

Place to buy contact lens (participant can choose more than one choice)

The majority of the participants bought contact lenses from eye clinics and optical shops. Among the non-medical student group, 24 of 197 study subjects (12.2%) bought contact lenses from the internet which was significantly more than the medical student group (7/196, 3.6%), p = 001. The non-medical students also bought contact lenses from the market significantly more than the medical students (17/197 (8.6%) vs. 3/196 (1.5%), p = 0.001).

Color contact lens

In the medical student group, 63 of 195 study subjects (32.3%) wore color contact lenses compared with 83 of 191 study subjects (43.5%) in the non-medical student group. The non-medical students wore color contact lenses significantly more than the medical students did (p = 0.024).

Big eye contact lens

In the medical student group, 46 of 195 study subjects (23.6%) wore big eye contact lenses compared with 51 of 188 study subjects (27.1%) in the non-medical student group. There was no significant difference between wearing big eye contact lenses for both groups.

Knowledge (Table 2)

Can participants name contact lens-related complications?

Dry eye

In the medical student group, 180 of 198 study subjects (90.9%) knew that dry eye was one of the contact lens-related complications compared with 166 of 199 study subjects (84.9%) in the non-medical student group. There was no significant difference in either group.

Contact lens-induced allergic conjunctivitis

In the medical student group, 145 of 198 study subjects (73.2%) knew that allergic conjunctivitis was one of the contact lens-related complications compared with 122 of 199 study subjects (61.3%) in the non-medical student group. There was significant difference for both groups (p = 0.01).

Corneal abrasion

In the medical student group, 115 of 198 study subjects (58%) knew that corneal abrasion was one of

Table 2. Comparison of knowledge between the medical student group and the non-medical student group

	Medical student group n (%)	Non-medical student group n (%)	*p*-value
Can participants name contact lens-related complications?			
Dry eye	180/198 (90.9)	169/199 (84.9)	0.067
Allergic conjunctivitis	145/198 (73.2)	122/199 (61.3)	0.011
Corneal abrasion	115/198 (58.0)	73/199 (36.7)	<0.001
Corneal ulcer	122/198 (61.6)	91/199 (45.7)	0.002
Corneal neovascularization	59/198 (29.8)	36/199 (18)	0.006

the contact lens-related complications compared with 73 of 199 study subjects (36.7%) in the non-medical student group. There was significant difference for both groups ($p<0.001$). No medical students had experienced contact lens-induced corneal abrasion compared with two subjects in the non-medical student group.

Corneal ulcer

In the medical student group, 122 of 198 study subjects (61.6%) knew that corneal ulcer was one of the contact lens-related complications compared with 91 of 199 study subjects (45.7%) in the non-medical student group. There was significant difference for both groups ($p = 0.002$). No medical students had experienced contact lens-induced corneal ulcer compared with eight subjects in the non-medical student group.

Corneal neovascularization

In the medical student group, 59 of 198 study subjects (29.8%) knew that corneal neovascularization was one of the contact lens-related complications compared with 36 of 199 study subjects (18%) in the non-medical student group. There was significant difference in both groups ($p = 0.006$).

Participant's behavior (Table 3)

Duration of wearing contact lenses per day

In the medical student group, 51 of 192 study subjects (26.6%) wore contact lenses less than eight hours per day, 112 of 192 study subjects (58.3%) wore contact lenses between 8-12 hours per day and 29 of 192 study subjects (15.1%) wore contact lenses more than 12 hours per day. In the non-medical student group, 51 of 189 study subjects (27%) wore contact lenses less than eight hours per day, 121 of 189 subjects (64%) wore contact lenses between 8-12 hours per day and 17 of 189 subjects (9%) wore contact lenses more than 12 hours per day. There was no significant difference between the duration of wearing lenses for both groups.

Sleeping while wearing contact lenses

In the medical student group, 19 of 198 study subjects (9.6%) slept while wearing contact lenses compared with 22 of 200 subjects (11%) in the non-medical student group. There was no significant difference between sleeping while wearing contact lenses in either group.

Wearing contact lenses longer than recommended

Among the medical student group, 70 of 196 study subjects (35.7%) wore contact lenses longer than recommended compared with 74 of 200 study subjects (37%) in the non-medical student group. There was no significant difference between wearing contact lenses longer than recommended in either group.

Sharing contact lenses

In the medical student group, 8 of 197 study subjects (4.1%) had ever shared contact lenses with someone at least once compared with 15 of 199 subjects (7.5%) in the non-medical student group. There was no significant difference between sharing contact lenses for both groups.

Swimming while wearing contact lenses

In the medical student group, 48 of 196 study subjects (24.5%) swam while wearing contact lenses compared with 55 of 200 study subjects (27.5%) in the non-medical student group. There was no significant difference between swimming while wearing contact lenses for both groups.

Washing hands before handling lenses

In the medical student group, 163 of 197 study

Table 3. Comparison of participant behavior between the medical student group and the non-medical student group

	Medical student group n (%)	Non-medical student group n (%)	*p*-value
Duration of wearing contact lenses per day			
<8 hour/day	51/192 (26.6)	51/189 (27)	
8-12 hour/day	112/192 (58.3)	121/189 (64)	
>12 hour/day	29/192 (15.1)	17/189 (9)	0.178
Sleeping while wearing lenses			
Yes	19/198 (9.6)	22/200 (11)	
No	179/198 (90.4)	178/200 (89)	0.742
Wearing lenses longer than recommended			
Yes	70/196 (35.7)	74/200 (37)	
No	126/196 (64.3)	126/200 (63)	0.790
Sharing lenses			
Yes	8/197 (4.1)	15/199 (7.5)	
No	189/197 (95.9)	184/199 (92.5)	0.139
Swimming while wearing lenses			
Yes	48/196 (24.5)	55/200 (27.5)	
No	148/196 (75.5)	145/200 (72.5)	0.495
Have you always washed your hands before handling lenses?			
Yes	163/197 (82.7)	142/200 (71)	
No	34/197 (17.3)	58/200 (29)	0.006
Cleaning material (excluded daily lens wearers)			
Lens solution	115/132 (87.1)	149/160 (93.1)	
Other	17/132 (12.9)	11/160 (6.9)	0.083
Have you ever used tap water for rising lenses? (excluded daily lens wearers)			
Yes	27/137 (19.7)	48/161 (29.8)	
No	110/137 (80.3)	113/161 (70.2)	0.045
Replacing the lens case (excluded daily lens wearers)			
≤3 months	133/144 (92.4)	157/168 (93.5)	
>3 months	11/144 (7.6)	11/168 (6.5)	0.917
Changing lens storage solution daily			
Yes	99/138 (71.7)	118/162 (72.8)	
No	39/138 (28.3)	44/162 (27.2)	0.832

subjects (82.7%) always washed hands before handling lenses compared with 142 of 200 study subjects (71%) in the non-medical student group. Medical students washed hands before handling lenses significantly more than the non-medical students did ($p = 0.006$).

Cleaning material (excluded daily contact lens wearers)

The majority of participants (87.1% in the medical student group, 93.1% in the non-medical student group) cleaned contact lenses with lens solution. Other solutions included normal saline solution and tap water. For normal saline solution, 8 of 132 medical students (6.1%) used normal saline solution for cleaning lenses compared with 9 of 160 non-medical students (5.6%). For tap water, 9 of 132 medical students (6.8%) used tap water for cleaning lenses compared with 2 of 160 non-medical students (1.3%). There was no significant difference between cleaning material for both groups.

Rinsing lenses with tap water (excluded daily contact lens wearers)

Among the medical student group, 27 of 137 study subjects (19.7%) had ever rinsed contact lenses with tap water at least once compared with 48 of 161 study subjects (29.8%) in the non-medical student group. Non-medical students rinsed lenses with tap water significantly more than the medical students did ($p = 0.045$).

Replacing the lens case (excluding daily contact lens wearers)

Among the medical student group, 11 of 144 study subjects (7.6%) replaced the lens case more than three months compared with 11 of 168 study subjects (6.5%) in the non-medical student group. There was no significant difference between replacing the lens case for both groups.

Changing the contact lens storage solution daily (excluded daily contact lens wearers)

Among the medical student group, 39 of 138 study subjects (28.3%) did not change the contact lens storage solution daily compared with 44 of 162 study subjects (27.2%) in the non-medical student group. There was no significant difference in changing the contact lens storage solution daily for both groups.

Discussion

The present study investigated the difference of knowledge and behavior of contact lens care between the medical students and non-medical students. The authors found that the prevalence of contact lens wearers was higher in the non-medical students than the medical students (53.5%, 32.2%). Previous studies reported the prevalence of contact lens wearers among the medical students was varied from 14-27.4%[3,5]. Approximately 50% of the study population had used contact lenses within one year. It seems to be that the contact lens wearers have been increasing in Thai students. Nearly 75% of participants wore contact lenses for vision correction and the rest wore contact lenses for cosmetic purposes. Colored contact lens and big eye contact lens have become a familiar recent trend in the young generation. The non-medical students wore colored contact lenses significantly more than the medical students (43.5%, 32.3%). Many studies reported severe corneal infection after wearing decorative contact lenses[6-8]. Young people who occasionally wear decorative lenses without refractive correction may lack proper education by eye professionals. Moreover, because the designs painted on these types of lenses make the lenses thicker, it may account for the difficulty of oxygen to permeate the lenses to the eye, leading to an increased risk of infection. Hypoxic condition can lead to bacterial adhesion to damaged corneal epithelium.

The place to buy contact lenses included eye clinics, optical shops, markets and the internet. The non-medical students bought contact lenses from internet and market significantly more than the medical students did (internet: 12.2% vs. 3.6%, $p = 0.001$, market: 8.6% vs. 1.5%, $p = 0.001$). Persuasive commercials and the accessible availability of lenses have led to a dramatic increase in wearing contact lenses. However, the wearers should realize that the contact lenses are medical devices that require responsibility to do proper contact lens care by patients. The authors are concerned that students can buy contact lenses without a prescription and the instructions for appropriate contact lens care from a vender other than an eye care professional. Even when lenses are distributed from the eye care professionals, approximately 50% of wearers are still non-compliant with contact lens care instruction[9].

Most students wore monthly contact lenses in both groups. The medical students wore daily contact lenses significantly more than the non-medical students. However, we did not investigate the reason why the participants wore daily contact lenses. Contact lens related complications are found less in daily wear than the other types. The advantages of the daily contact lens includes no need for extensive cleaning procedure and less deposit build up. The disadvantage was cost consideration.

Regarding the knowledge component, most students knew that dry eye was one of the contact lens-related complications. Differing knowledge was evident between both groups included allergic conjunctivitis, corneal abrasion, corneal ulcer and corneal neovascularization. Overall, the medical students knew contact lens-related complications better than the non-medical students did. However, the medical students who knew that corneal abrasion, corneal ulcer and corneal neovascularization were contact lens related complications were only 58%, 61.6%, 29.8% respectively. It showed us the problem about contact lens knowledge in the lens wearers in both groups.

Regarding the behavior component, the behavior of participants was significantly different in both groups included rinsing lenses with tap water (medical student group: 19.7%, non-medical student group: 29.8%, $p = 0.045$), and washing hands before handling lenses (medical student group: 82.7%, non-medical student group: 71%, $p = 0.006$). The common five improper behaviors of contact lens care were the same in both groups included wearing lenses longer than recommended, not changing lens storage solution daily, swimming while wearing lenses, using tap water for rising lenses and not washing hands before handling lenses. All of these improper behaviors are more likely

to be associated with serious ocular infection especially bacterial and acanthamoeba infection. Although the medical students had better proper behavior of contact lens care than the non-medical students did, many medical students were non-compliant with contact lens care instructions. Education about contact lens care and contact lens-related complications is mandatory for both groups of students.

Regarding using the questionnaire, the previous study reported that written answers on questionnaires were not entirely truthful by participants[10]. The potential bias in this study lies in the written questionnaire without oral administration by the interviewer. This can lead the chance of misunderstanding the questions.

Conclusion

Medical students had better knowledge and behavior of contact lens care than non-medical students. However, both groups of students still lacked adequate knowledge and were non-compliant with contact lens care instructions.

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Potential conflicts of interest

None.

References

1. Goh PP, Shamala R, Chandamalar S, Tai XY. Contact lens—related corneal ulcer: a two-year review. Med J Malaysia 2010; 65 (Suppl A): 120-3.
2. Chaudhry TA, Sarfraz S, Khan Q, Ahmad K. Contact lens-related visual loss—a case series from Karachi. J Pak Med Assoc 2011; 61: 1246-8.
3. Tajunisah I, Ophth M, Reddy SC, Phuah SJ. Knowledge and practice of contact lens wear and care among medical students of University of Malaya. Med J Malaysia 2008; 63: 207-10.
4. Edwards K, Keay L, Naduvilath T, Snibson G, Taylor H, Stapleton F. Characteristics of and risk factors for contact lens-related microbial keratitis in a tertiary referral hospital. Eye (Lond) 2009; 23: 153-60.
5. Giri PA, Chavan WM, Phalke DB, Bangal SV. Knowledge and practice of contact lens wear and care among contact lens users medical students of rural medical college, Loni, Maharashtra, India. Int J Biol Med Res 2012; 3: 1385-7.
6. Cavanagh HD. Over the counter cosmetic colored contact lenses: deja vu (disaster!) all over again! Eye Contact Lens 2003; 29: 195.
7. Singh S, Satani D, Patel A, Vhankade R. Colored cosmetic contact lenses: an unsafe trend in the younger generation. Cornea 2012; 31: 777-9.
8. Johns KJ, O'Day DM. Pseudomonas corneal ulcer associated with colored cosmetic contact lenses in an emmetropic individual. Am J Ophthalmol 1988; 105: 210.
9. Ky W, Scherick K, Stenson S. Clinical survey of lens care in contact lens patients. CLAO J 1998; 24: 216-9.
10. Kass MA, Meltzer DW, Gordon M, Cooper D, Goldberg J. Compliance with topical pilocarpine treatment. Am J Ophthalmol 1986; 101: 515-23.

เปรียบเทียบความรู้และพฤติกรรมในการดูแลรักษาเลนส์สัมผัสระหว่างนักศึกษาแพทย์และนักศึกษาที่ไม่ใช่นักศึกษาแพทย์

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วัตถุประสงค์: เพื่อเปรียบเทียบความรู้และพฤติกรรมในการดูแลรักษาเลนส์สัมผัสระหว่างนักศึกษาแพทย์และนักศึกษาที่ไม่ใช่นักศึกษาแพทย์

วัสดุและวิธีการ: ผู้เข้าร่วมวิจัยประกอบด้วยนักศึกษาที่ใส่เลนส์สัมผัสซึ่งเป็นนักศึกษาแพทย์จำนวน 200 คน และนักศึกษาที่ไม่ใช่นักศึกษาแพทย์จำนวน 200 คน โดยมีการส่งแบบสอบถามไปยังนักศึกษาดังกล่าว

ผลการศึกษา: เกือบร้อยละ 50 ของผู้เข้าร่วมวิจัยใส่เลนส์สัมผัสเป็นระยะเวลาน้อยกว่า 1 ปี วัตถุประสงค์ของการใส่เลนส์สัมผัสได้แก่ ใส่เลนส์สัมผัสเพื่อแก้ไขปัญหาทางสายตาเป็นจำนวนร้อยละ 73.6 และ ใส่เลนส์สัมผัสเพื่อความสวยงามเป็นจำนวนร้อยละ 26.4 นักศึกษาที่ไม่ใช่นักศึกษาแพทย์ใส่เลนส์สัมผัสชนิดสีมากกว่านักศึกษาแพทย์อย่างมีนัยสำคัญทางสถิติ นักศึกษาที่ไม่ใช่นักศึกษาแพทย์ซื้อเลนส์สัมผัสทางอินเตอร์เน็ตและตลาดมากกว่านักศึกษาแพทย์อย่างมีนัยสำคัญทางสถิติ ทางด้านความรู้พบว่านักศึกษาแพทย์มีความรู้ว่าภูมิแพ้ที่ตา, กระจกตาถลอก, กระจกตาติดเชื้อ และการมีหลอดเลือดงอกเข้ามาในกระจกตาเป็นภาวะแทรกซ้อนที่อาจเกิดจากการใส่เลนส์สัมผัสมากกว่านักศึกษาที่ไม่ใช่นักศึกษาแพทย์อย่างมีนัยสำคัญทางสถิติ ทางด้านพฤติกรรมพบว่านักศึกษาที่ไม่ใช่นักศึกษาแพทย์เคยทำความสะอาดเลนส์สัมผัสด้วยน้ำประปา และไม่ได้ล้างมือก่อนใส่เลนส์สัมผัสมากกว่านักศึกษาแพทย์อย่างมีนัยสำคัญทางสถิติโดย 5 อันดับแรกของพฤติกรรมการใส่เลนส์สัมผัสที่ไม่เหมาะสมของนักศึกษาทั้ง 2 กลุ่มเหมือนกันได้แก่ การใส่เลนส์สัมผัสนานเกินระยะเวลาที่กำหนด, ไม่เปลี่ยนน้ำยาแช่เลนส์ในตลับเลนส์สัมผัสทุกวัน, ใส่เลนส์สัมผัสในขณะว่ายน้ำ, ใช้น้ำประปาในการทำความสะอาดเลนส์สัมผัส, ไม่ล้างมือก่อนการใส่เลนส์สัมผัส

สรุป: นักศึกษาแพทย์มีความรู้และพฤติกรรมในการดูแลรักษาเลนส์สัมผัสที่ดีกว่านักศึกษาที่ไม่ใช่นักศึกษาแพทย์ อย่างไรก็ตามพบว่านักศึกษาจำนวนมากทั้ง 2 กลุ่มยังขาดความรู้และมีพฤติกรรมในการดูแลรักษาเลนส์สัมผัสที่เป็นความเสี่ยงต่อการเกิดภาวะแทรกซ้อน