

# Awareness, Attitude, and Usage of Contact Lenses Among Young Adults in Rural North India: A Questionnaire-Based Study

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## Abstract

**Background:** Contact lenses are widely used for vision correction and cosmetic purposes. Awareness regarding their use, benefits, and potential complications plays an important role in ensuring safe practices, particularly among young adults. Limited data are available regarding contact lens awareness in rural regions of North India.

**Aim:** To assess the awareness, attitude, and usage of contact lenses among young adults in rural North India.

**Methodology:** A cross-sectional questionnaire-based survey was conducted among 81 participants from rural and nearby urban areas of North India. Data was collected using a structured questionnaire assessing demographic characteristics, awareness, usage patterns, and perceptions regarding contact lenses. Statistical analysis was performed using IBM SPSS Statistics. Frequencies and percentages were calculated, and chi-square analysis was used to determine associations between variables.

**Results:** Among the 81 participants, 69.1% were females and 53.1% belonged to urban areas, while 43.2% were from rural areas. A high level of awareness regarding contact lenses was observed, with 84.0% of participants reporting knowledge about contact lenses. However, only 13.6% of participants reported actual use of contact lenses. Most respondents (70.4%) believed that contact lenses are not dangerous for eye health, whereas a small proportion expressed uncertainty regarding their safety and usage among children. Chi-square analysis revealed no statistically significant association between residence and awareness regarding contact lenses ( $p > 0.05$ ).

**Conclusion:** The study demonstrated good awareness regarding contact lenses among young adults in North India; however, actual usage remained low. Although most participants considered contact lenses safe, misconceptions and uncertainty still existed among some respondents. Further educational programs and larger studies are recommended to improve awareness and promote safe contact lens practices.

**Keywords:** Contact lenses; Awareness; Young adults; Rural North India; Eye health; Vision Correction

## Introduction

Contact lenses are slender optical instruments that are positioned directly on the eye's surface and are frequently utilized to correct refractive errors such as myopia, hyperopia, astigmatism, and presbyopia. In recent years, the popularity of contact lenses has surged among young adults due to their convenience, aesthetic appeal, and enhanced visual performance [1-3]. Beyond vision correction, contact lenses serve cosmetic and therapeutic functions as well.

When compared to eyeglasses, contact lenses offer a broader field of vision, a more appealing appearance, and increased com-

fort during sports and various daily activities. Thanks to advancements in eye care technology and heightened public awareness, the acceptance of contact lenses has significantly risen among students and young individuals [2]. Despite their benefits, improper usage and inadequate hygiene practices related to contact lens wear can result in numerous ocular complications, including redness, dryness, irritation, allergic reactions, corneal infections, and discomfort. A lack of proper understanding regarding lens cleaning, storage, replacement schedules, and wear duration may elevate the risk of eye issues.

Consequently, sufficient awareness and safe practices are crucial for preserving eye health and preventing complications associated with contact lens use [3-5]. Awareness about contact lenses can be affected by various factors, including educational background, exposure to social media, socioeconomic status, and access to eye care services. Recommendations from optometrists and ophthalmologists also significantly influence public perceptions regarding contact lens usage. However, individuals residing in rural areas often face limited access to eye care facilities and trustworthy information, which can lead to misconceptions, fear, and a lack of confidence in using contact lenses.

Although many individuals are aware of contact lenses, the actual rate of usage remains relatively low due to concerns about safety, cost, maintenance, and comfort [4-6]. Numerous studies carried out across diverse populations have indicated differing degrees of awareness, attitudes, and practices related to contact lenses among young adults. Nonetheless, there is a scarcity of information concerning the awareness and perceptions of contact lenses in the rural regions of North India [6-8]. Consequently, this study was undertaken to evaluate the awareness, attitudes, and usage of contact lenses among young adults in rural North India through a questionnaire-based survey approach [9,10].

**Methodology**

**Study Design:** This study was a cross-sectional survey based on a questionnaire, aimed at evaluating the awareness, attitudes, and usage of contact lenses among young adults residing in rural North India.

**Study Population:** The participants of the study comprised students and young adults from rural areas and adjacent urban regions of North India. A total of 81 individuals participated in the study, selected based on their consent to engage in the survey.

**Data Collection:** Data collection was carried out using a structured questionnaire that included inquiries about demographic information, awareness of contact lenses, usage habits, perceptions of safety, and general attitudes towards contact lens

usage. The questionnaire was disseminated through both online platforms and direct responses. Participation in the study was voluntary.

**Inclusion Criteria**

- Young adults who were willing to take part in the study
- Participants from rural and nearby urban regions of North India
- Individuals aged 18 years or older

**Exclusion Criteria**

- Participants who submitted incomplete responses
- Individuals who were not willing to participate in the survey

**Statistical Analysis:** The data collected were entered into and analyzed using IBM SPSS Statistics 2023 version. Descriptive statistics, including frequencies and percentages, were computed to summarize the findings. A chi-square test was utilized to assess the relationship between demographic variables and awareness of contact lenses. A p-value of less than 0.05 was deemed statistically significant.

**Ethical Consideration:** Participation in the study was voluntary, and the confidentiality of participant information was upheld throughout the research process. The data collected was utilized solely for academic and research purposes.

**Results**

A total of 81 individuals participated in this study aimed at evaluating the awareness, attitudes, and usage of contact lenses among young adults in rural North India. Among the participants, females made up most of the study group, with 56 (69.1%) participants, while 21 (25.9%) were males. In terms of residence, 43 (53.1%) participants were from urban areas, and 35 (43.2%) were from rural areas. A minor percentage of participants did not provide their demographic information (Table 1).

**Table 1:** Demographic Characteristics of Participants (n = 81).

Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	56	69.1
	Male	21	25.9
	Not specified	4	4.9
Residence	City	43	53.1
	Village	35	43.2
	Not specified	3	3.7

The research indicated a significant level of awareness about contact lenses among the participants. Out of 81 individuals surveyed, 68 (84.0%) acknowledged their awareness of contact

lenses, whereas 8 (9.9%) were not aware of them. Nevertheless, the actual usage of contact lenses was relatively low, with only 11 (13.6%) participants indicating that they used contact lens-

es. Most respondents did not utilize contact lenses, even though they were aware of their existence. Concerning the perception of contact lenses, 38 participants (46.9%) believed children should not use contact lenses, while 32 participants (39.5%) felt that children could safely wear contact lenses (Table 2).

Most participants, totalling 57 (70.4%), regarded contact lenses as safe for eye health when used appropriately. Neverthe-

less, several participants voiced their concerns and uncertainties about the safety of contact lenses. Chi-square analysis was performed to determine the association between residence and awareness regarding contact lenses. The analysis showed no statistically significant association between residence and awareness among participants ( $\chi^2 = 2.085, p = 0.149$ ) (Table 3).

**Table 2:** Awareness and Usage of Contact Lenses.

Variable	Response	Frequency (n)	Percentage (%)
Awareness about contact lenses	Yes	68	84
	No	8	9.9
	Not sure / Not confident	5	6.1
Contact lens usage	Yes	11	13.6
	No	67	82.7
	Not sure / Not confident	3	3.7

**Table 3:** Perception and Attitude Toward Contact Lenses.

Variable	Response	Frequency (n)	Percentage (%)
Children can wear contact lenses	Yes	32	39.5
	No	38	46.9
	Not sure / Not confident	11	13.6
Contact lenses are dangerous for eye health	Yes	12	14.8
	No	57	70.4
	Not sure / Not confident	12	14.8

### Discussion

The current research aimed to evaluate the awareness, attitudes, and usage of contact lenses among young adults in rural North India. The results revealed that most participants were knowledgeable about contact lenses and their applications for vision correction and cosmetic enhancement. This suggests that information about contact lenses has become more readily available to younger demographics through social media, educational institutions, online resources, advertisements, and eye care professionals. The increased visibility of eye care awareness initiatives may have also played a role in the relatively high level of awareness noted in this study.

However, despite the significant awareness of contact lenses, the actual usage among participants was relatively low. A mere fraction of respondents indicated that they used contact lenses regularly, with the majority opting for spectacles instead. This discrepancy between awareness and actual usage may be linked to various factors, including fear of potential eye damage, discomfort associated with wearing lenses, challenges in handling them, maintenance demands, financial considerations, and a lack of confidence in safe usage practices. Additionally, many participants

voiced concerns about the safety of contact lenses, indicating that awareness does not necessarily equate to a proper understanding or acceptance of their use.

The current study also assessed the attitudes and perceptions of participants concerning the safety of contact lenses. Most respondents felt that contact lenses do not pose a risk to eye health when utilized correctly. This indicates a predominantly favorable view towards the use of contact lenses within the study group. Nevertheless, some participants regarded contact lenses as hazardous or expressed uncertainty about their safety. Such misunderstandings may stem from insufficient knowledge about hygiene practices, improper usage, or a lack of professional advice. Inadequate lens hygiene and extended wear of contact lenses are recognized as risk factors for ocular issues such as redness, irritation, allergic reactions, corneal infections, and dryness.

Consequently, it is crucial to provide proper education on cleaning techniques, storage, replacement schedules, and regular eye check-ups to ensure the safe use of contact lenses. Another significant finding of the study pertained to the perception of contact lens usage among children. Almost half of the participants believed that children should refrain from wearing contact lenses,

while others deemed contact lenses safe for children when used under appropriate supervision. This observation indicates that misconceptions and uncertainties regarding the age-appropriate use of contact lenses persist within the general populace. Educational guidance from optometrists and ophthalmologists may enhance understanding of the suitable use of contact lenses across various age groups.

The relationship between place of residence and awareness of contact lenses was also examined in the study. While urban participants exhibited slightly higher levels of awareness compared to their rural counterparts, this association was not statistically significant. The absence of a significant association may be attributed to the relatively small sample size and the increased accessibility of digital information in both urban and rural areas. The prevalent use of smartphones and social media platforms may have somewhat diminished the knowledge gap between rural and urban populations.

The results of the current study align with previous research conducted among students and young adults, which commonly reported high levels of awareness but relatively low usage of contact lenses (6-7). Similar investigations have indicated that many individuals are aware of contact lenses yet are reluctant to use them due to concerns regarding comfort, maintenance, safety, and cost. These findings highlight the necessity of enhancing practical knowledge and confidence concerning contact lens usage, rather than solely concentrating on awareness.

The current research has specific limitations. The sample size was comparatively small, and the majority of participants were from a younger demographic, which may restrict the applicability of the results. The study relied on self-reported data, which could lead to response bias. Furthermore, the research was carried out in selected regions of North India and may not accurately reflect the entire population. Nevertheless, the study offers valuable insights into the awareness and perceptions of contact lenses among young adults in rural North India.

In summary, the research underscores the necessity for awareness initiatives and educational programs concerning safe practices for contact lens use. Eye care professionals should proactively inform the public about proper lens hygiene, safe usage, and the importance of regular eye examinations to mitigate misconceptions and avert complications related to contact lenses. It is advisable to conduct further studies with larger sample sizes and broader geographic representation to gather more comprehensive data on the awareness, attitudes, and usage trends of contact lenses across various populations.

## Conclusion

The present study assessed the awareness, attitude, and usage of contact lenses among young adults in rural North India. The

findings revealed that most participants were aware of contact lenses; however, the actual usage of contact lenses was comparatively low. The majority of respondents considered contact lenses safe for eye health when used properly, although some participants still had misconceptions and lack of confidence regarding their use and safety. The study also showed that there was no statistically significant association between place of residence and awareness regarding contact lenses.

Increasing access to digital information and social media may have contributed to improved awareness among both rural and urban populations. Overall, the study highlights the importance of spreading accurate knowledge regarding proper contact lens use, hygiene, and eye care practices. Educational programs and guidance from eye care professionals can help improve confidence, reduce misconceptions, and promote safe contact lens usage among young adults. Further studies with larger sample sizes and wider geographic coverage are recommended to obtain more comprehensive information regarding awareness and practices related to contact lenses.

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