

# Awareness about Color Blindness among University Student

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**Abstract**

Basic purpose of this survey studies was to check awareness level about color blindness among university students. Color blindness is color vision deficiency (CVD), which occurs due to genetic disorder in specialized cell of eye. Patients suffering with color blindness are unable to differentiate between certain colors like red, green and blue. Red-green deficiency is common among all patients. A questionnaire was prepared to estimate awareness of university students about color blindness. It is concluded from this survey studies that mostly students are unaware about etiology and recent treatments of color blindness.

**Keywords:** Color Vision Deficiency, Genetic Disorder, Awareness, Postgraduate Students.

**Introduction**

Color blindness is color vision deficiency (CVD), which occurs due to genetic disorder in specialized cell of eye. Patients suffering with color blindness are unable to differentiate between certain colors like red, green and blue. Red-green deficiency is common among all patients. This is a common genetic X-linked disorder that mostly affects males then females [1]. Specialized photoreceptors in retina, distinguish variations in wavelength of color thus enables us to determine array of contrasting colors. Among these photoreceptors cones are missing or not working correctly in CVD’s patients [2]. Besides this genetic disorder other reasons for color vision deficiency includes Parkinson’s disease and Leber’s hereditary optic neuropathy [3]. There is no complete cure for gene therapy but still some strategies and treatments are under trials. In September 2009 Gene therapy has cured color blindness in monkey but this is not applicable for humans due to some ethical issues [4]. Basic purpose of this survey study was to check awareness level about color blindness among university students.

**Methodology**

A questionnaire was developed in Table 1 to aware the students of university about the views of others on color blindness disease. Table 1 presents questionnaire with corresponding 15 questions about etiology, modes of transmission, treatment of color blindness and about brief history of suffered people. 39 postgraduate students were selected from Bahauddin Zakariya University to fill this questionnaire. The inclusion criteria for this study were students of M.phil while under-graduate students were excluded from this study.

**Table 1: Questionnaire to evaluate awareness about etiology of Color Blindness**

Color Blindness is a	Yes	No
1. Viral disease		
2. Bacterial disease		
3. Fungal disease		
4. Genetic disease		
5. Metabolic disease		
<b>Ever suffered from Color Blindness</b>		
1. You		
2. Your family		
3. Your relative		
4. Your neighbor		
5. Your friend		
<b>Color Blindness is transmitted by</b>		
11. Contacts or blood transfusion		
12. From parents to offspring		
Color Blindness may be treated by		
13. Medicines		
14. Surgery		
15. Do not worry, it is easily curable		

**Results and Discussion**

Awareness of postgraduate’s students about color blindness is given in table 2. 100% male and female were agreed that it is not a viral disease. All female and male were 100% denning that color blindness is bacterial and fungal disease. Ratio of male and female candidate’s

was 0% about color blindness is a fungal disease. 57.1% male and 100% females were agreed that it is a genetic disorder. Only 13.4% said color blindness is a metabolic disease. While results about students who suffered from color blindness was 0% for both male and females. 14.30% male family members and 6.25% female family members suffered from color blindness. 57.1% male answered that their friends and neighbors are CVD patients. 1000% male and female answered that color blindness do not transfer through blood. 57.1% male and 100% females were agreed that it is transferred from parents to offspring. 100% females and males were answered that color blindness is not easily curable. 63.8% totally agreed that it can be cured by medicine. Out of 100 only 14.95% said color blindness is curable by surgery. This work is also done by someone else in some other region in same way [5].

**Table 2: Awareness about Color Blindness: Views of Postgraduate Biology Students**

Questions Color Blindness is a	Male		Female		Total	
	Yes	No	Yes	No	Yes	No
1. Viral disease	0%	100%	0%	100%	0%	100%
2. Bacterial disease	0%	100%	0%	100%	0%	100%
3. Fungal disease	0%	100%	0%	100%	0%	100%
4. Genetic disease	57.1%	42.9%	100%	0%	78.55%	21.45%
5. Metabolic disease	14.3%	85.7%	12.5%	87.5%	13.4%	86.6%
<b>Ever suffered from Color Blindness</b>						
6. You	0%	100%	0%	100%	0%	100%
7. Your family	14.30%	85.7%	6.25%	93.75%	10.28%	89.72%
8. Your relative	57.1%	42.9%	21.90%	78.1%	39.5%	60.5%
9. Your neighbor	57.1%	42.9%	28.1%	71.9%	42.6%	57.4%
10. Your friend	0%	100%	15.6%	84.4%	15.6%	84.4%
<b>Color Blindness is transmitted by</b>						
11. Contacts or blood transfusion	0%	100%	0%	100%	0%	100%
12. From parents to off spring	57.1%	42.9%	100%	0%	78.6%	21.4%
<b>Color Blindness may be treated by</b>						
13. Medicines	71.4%	28.6%	56.2%	43.8%	63.8%	36.2%
14. surgery	14.3%	85.7%	15.6%	84.4%	14.95%	85.05%
15. Do not worry, it is easily curable	0%	100%	0%	100%	0%	100%

## Conclusion

It is concluded from this study that mostly students are aware about etiology and transmission of color blindness disease while some are not fully aware of this disease.

## References

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