

Research Article

Clear Vision, Safe Vision: Enhancing Eye Safety Awareness at Home and Work in District Kangra, Himachal Pradesh

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Abstract: **Background:** This study assesses the levels of awareness and knowledge regarding eye safety at home and work among the general population of District Kangra, Himachal Pradesh, India. Given the vulnerability of the eyes to various hazards, understanding eye safety is critical for maintaining overall well-being. **Materials & Methods:** A cross-sectional survey design was employed, with data collected from 400 adults residing in District Kangra. A structured questionnaire was used to gather information on demographic characteristics and knowledge related to eye safety. Data were analyzed using Epi Info V7 Software. **Results:** The study revealed that while 57.75% of participants were aware of common eye hazards at home, there was room for improvement in knowledge and preventive practices. Only 24.5% reported using protective eyewear during potentially hazardous activities at home. Workplace eye safety knowledge was limited, with 28.75% able to list common workplace eye hazards, and only 10.75% required protective eyewear at work. Training on eye safety was inadequate, with only 8.5% having received such training. **Conclusion:** This study highlights the need for enhanced eye safety awareness and education in District Kangra. Knowledge gaps exist in both home and workplace settings, indicating the importance of targeted educational campaigns and workplace safety programs. Collaborative efforts with local organizations could further promote eye safety in this region, ultimately safeguarding the precious gift of sight.

Keywords: Eye safety, awareness, knowledge, District Kangra, Himachal Pradesh, workplace safety, preventive measures.

INTRODUCTION

Vision is an invaluable gift that shapes our daily experiences, enabling us to navigate the world around us. Whether at home or work, preserving eye safety is paramount to maintaining the quality of life. The eyes are not only windows to the soul but also delicate instruments susceptible to various hazards, making eye safety a critical concern. This study, titled "Clear Vision, Safe Vision: Enhancing Eye Safety Awareness at Home and Work in District Kangra, Himachal Pradesh," delves into the levels of awareness and knowledge about eye safety among the general population in this picturesque region of India.¹⁻⁴

In our modern era, where we are increasingly engaged in various activities that involve potential eye risks, understanding and practicing eye safety has never been more crucial. District Kangra, located amidst the scenic landscapes of Himachal Pradesh, is a region where people engage in diverse occupations, from agriculture to technology, and where daily life encompasses various household tasks. In this context, awareness of eye safety is a vital aspect of overall well-being.^{5,6}

Eye safety encompasses a wide range of considerations, from protecting eyes from physical injuries to safeguarding them from the strain induced by prolonged digital device use. The consequences of neglecting eye safety can be severe, leading to vision impairments, injuries, and a reduced quality of life. Therefore, it is imperative to assess the awareness and knowledge levels of the residents of District Kangra regarding eye safety at both home and work environments.^{6,7}

This study aims to explore the current awareness and knowledge regarding eye safety among the general population of District Kangra. By investigating their understanding of potential hazards, safety measures, and the importance of regular eye check-ups, this research seeks to identify knowledge gaps and areas for improvement. Ultimately, the findings will serve as a foundation for enhancing eye safety awareness and promoting practices that protect the precious gift of sight.

Objectives of the Study:

The objective of this study is to gauge the levels of awareness and knowledge about Eye Safety at Home and Work among the general population of District Kangra, Himachal Pradesh

RESEARCH METHODOLOGY

- Research Approach -Descriptive
- Research Design- Cross-sectional survey design
- Study area: District Kangra, Himachal Pradesh
- Study duration- between April 2023 to July 2023
- Study population: The study's target population encompassed all adults aged 18 and above who had been residents of District Kangra for a minimum of 12 months
- Sample size- A robust sample size of 400 adults was determined using a 95% confidence level, an estimated knowledge level of 50% regarding Eye Safety at Home and Work , a precise 5% absolute error margin, and a conservative 5% non-response rate.
- Study tool: A google form questionnaire consisting of questions regarding socio-demography and knowledge regarding Eye Safety at Home and Work was created. The questionnaire was initially pre-tested on a small number of participants to identify any difficulty in understanding by the respondents.
- Description of Tool-
 - a) Demographic data survey instrument: The demographic form elicited information on participants' background: age, marital status, religion, employment, education and many more.
 - b) Questionnaire: The questionnaire contains 20 structured knowledge related questions regarding Eye Safety at Home and Work. One mark was given for each correct answer and zero for incorrect answer. The maximum score was 20 and minimum score was zero. Scoring was done on the basis of marks as >80%(16-20)=very good,60-79%(12-15) =Good,41-59% (8-11)=Fair,<40% (< 8)=poor
- Validity of tool - by the experts in this field
- Data collection- Data was collected under the guidance of supervisors. The google form questionnaire was circulated among the residents of District Kangra, Himachal Pradesh for responses using online modes like e-mail and social media platforms like Whatsapp groups, Facebook, Instagram and LinkedIn till the 400 responses were collected.
- Data analysis- Data was collected and entered in Microsoft excel spread sheet, cleaned for errors and analyzed with Epi Info V7 Software with appropriate statistical test in terms of frequencies and percentage.
- Ethical Considerations- Participants confidentiality and anonymity was maintained.

RESULTS

The primary objective of this study was to gauge the understanding of Eye Safety at Home and Work among the general population of District Kangra. A total of 400 participants took part in the study, with 271 (67.75%) residing in urban areas and 129 (32.25%) in rural areas.

S.No.	Statements	Frequency of Correct Responses	Percent
1.	What are some common eye hazards you might encounter at home?	231	57.75
2.	Can you name a few activities or tasks at home that could pose a risk to your eyes?	214	53.5
3.	Are you aware of any safety measures to protect your eyes while engaging in potentially hazardous activities at home?	212	53
4.	Do you use protective eyewear when performing tasks like gardening, home repairs, or cooking that may expose your eyes to potential risks?	98	24.5
5.	How often do you check the expiration date of household chemicals to prevent eye exposure to expired products?	123	30.75
6.	Are you familiar with the appropriate first-aid steps to take in case of an eye injury at home?	189	47.25
7.	Do you keep a well-stocked first-aid kit, including items for treating eye injuries, in your home?	112	28
8.	What precautions do you take to protect your eyes from harmful UV radiation, both indoors and outdoors?	98	24.5
9.	Can you list some common eye hazards or risks associated with workplace environments?	115	28.75
10.	Are you provided with and required to wear safety goggles or protective	43	10.75

	eyewear at your workplace?		
11.	How often are eye safety protocols and procedures reviewed and reinforced in your workplace?	78	19.5
12.	Are emergency eyewash stations and safety showers readily available in your workplace in case of eye exposure to hazardous materials?	23	5.75
13.	Do you know the appropriate steps to take if you or a coworker experiences an eye injury at work?	67	16.75
14.	Are there any specific industries or workplaces in District Kangra that are known for having higher eye injury risks?	45	11.25
15.	Have you ever received training on eye safety practices at work?	34	8.5
16.	Are there any local initiatives or organizations in District Kangra that promote workplace eye safety?	25	6.25
17.	In your opinion, how crucial is eye safety awareness in home and work environments?	135	33.75
18.	Have you ever witnessed or experienced an eye injury incident at home or work?	34	8.5
19.	Do you encourage your family members or coworkers to prioritize eye safety?	67	16.75
20.	Are there any specific eye safety concerns unique to the region of Kangra, Himachal Pradesh, that you think should be addressed?	88	22

Table-1: Knowledge regarding Eye Safety at Home and Work among study participants

In the present study 25.25% (101) participants had very good knowledge (16-20 marks) towards Eye Safety at Home and Work, 35.5% (142) had good knowledge (12-15 marks), 24.25% (97) had fair knowledge (8-11 marks) and 15% (60) having poor knowledge (<8 marks).

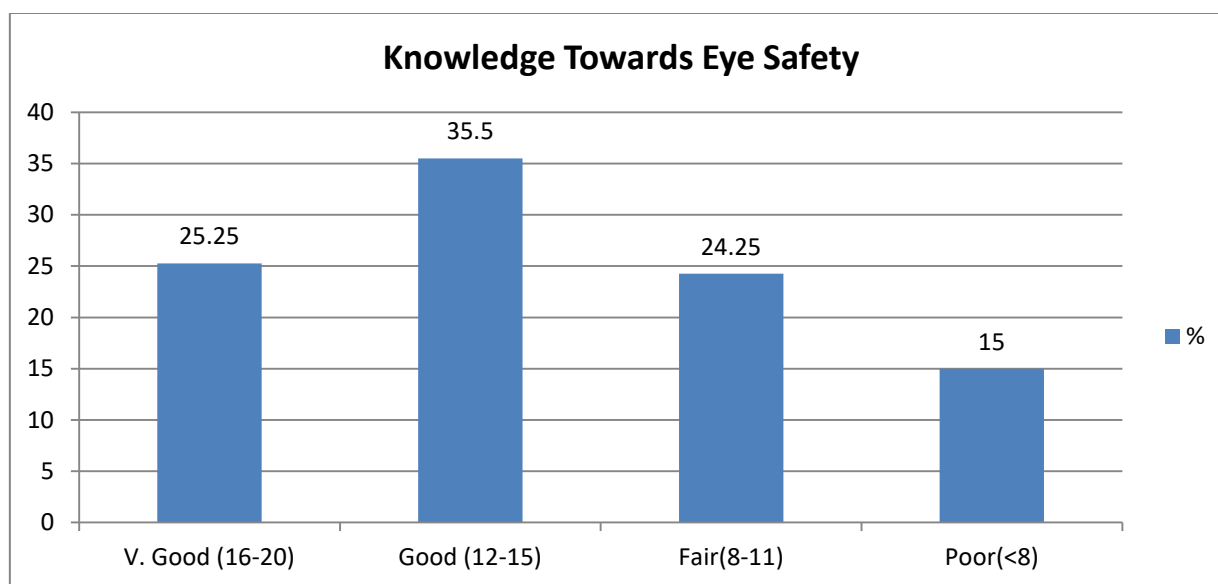


Table-2: Knowledge scores towards Eye Safety at Home and Work among study participants

DISCUSSION:

The findings of this study shed light on the levels of awareness and knowledge regarding eye safety at home and work among the general population of District Kangra, Himachal Pradesh. Understanding the state of eye safety awareness is essential in crafting effective strategies for promoting eye health and preventing injuries. This discussion section will delve into the key results, compare them with relevant studies, and provide insights into potential areas for improvement in eye safety awareness in District Kangra.

A significant proportion of the participants demonstrated awareness of common eye hazards encountered at home, with 57.75% correctly identifying these hazards. This finding indicates a reasonable level of awareness in the population regarding potential risks to their eyes in domestic settings. However, it also highlights the need for further education to cover the remaining 42.25% who may not be fully cognizant of these risks.

While a majority of respondents were aware of safety measures to protect their eyes during potentially hazardous activities at home (53%), the usage of protective eyewear in such situations was relatively low (24.5%). Additionally, a

significant portion (71.25%) either did not use protective eyewear or did not check household chemical expiration dates regularly. These results suggest an opportunity for educational campaigns emphasizing the importance of preventive measures like wearing eye protection and checking product expiration dates to minimize eye injuries at home.

In the context of workplace eye safety, the findings revealed room for improvement. Only 28.75% of participants could list common eye hazards or risks associated with workplace environments. Furthermore, a mere 10.75% indicated that they were provided with and required to wear safety goggles or protective eyewear at their workplace. These figures suggest a need for increased awareness and enforcement of workplace safety protocols related to eye protection.

Approximately one-third of respondents recognized the crucial role of eye safety awareness in both home and work environments, emphasizing its significance. However, when it comes to training, only 8.5% reported having received specific training on eye safety practices at work. This indicates a gap in workplace safety programs that could be addressed to better prepare employees to prevent and respond to eye injuries.

A limited number of participants (6.25%) were aware of local initiatives or organizations promoting workplace eye safety in District Kangra. This suggests the potential for collaboration with local organizations and authorities to enhance eye safety awareness and initiatives in the region. Additionally, 22% of participants identified specific eye safety concerns unique to Kangra, Himachal Pradesh, which should be further explored and addressed.

To contextualize these findings, it's valuable to compare them with relevant studies conducted in other regions. Studies in various parts of the world have consistently demonstrated gaps in eye safety awareness and practices. For instance, a study in the United States found that only 65% of individuals consistently used protective eyewear during activities with potential eye hazards, indicating room for improvement.¹ Another study in India reported limited knowledge of workplace eye safety measures, similar to the findings in this study.⁶

CONCLUSION:

In conclusion, this study underscores the importance of enhancing eye safety awareness at home and work in District Kangra, Himachal Pradesh. While some participants displayed good awareness, there are clear knowledge gaps that should be addressed through targeted educational campaigns and workplace safety initiatives. Collaboration with local organizations and authorities could further promote eye safety in this region. By doing so, we can aspire to ensure clear vision and safe vision for all residents of District Kangra.

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