EFFECTIVENESS OF EYE CARE BUNDLE ON SELECTED EYE PROBLEMS AMONG NON-TEACHING STAFF

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Nursing

UNDER THE GUIDENCE OF

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DECLARATION BY THE CANDIDATES

We are here by state the project entitled **Effectiveness of Eye Care Bundle on Selected Eye Problem Among Non-Teaching Staffs** is a bonafide and genuine research work carried by the students of 3rd year BSc (N) students under the guidance of **DR. G. Vijayalakshmi,** Professor and Principal, Department of Nursing Foundation, Sri Devaraj Urs College of Nursing, Tamaka, Kolar -563103.

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ABSTRACT

Background

Eye problems such as burning, itching, dryness, redness, blurred vision, and headache are common among non-teaching staff due to occupational strain, poor ergonomics, and lack of awareness about preventive eye care. An eye care bundle, comprising of evidence-based practices may help to reduce the prevalence and severity of such problems. Hence the study was undertaken with an aim to assess the common eye problems among non-teaching staff and to evaluate the effectiveness of an eye care bundle in reducing these problems.

Methods

A quasi-experimental study was conducted among 60 non-teaching employees, divided into experimental (n=30) and control (n=30) groups. A standardized questionnaire was used to assess the frequency of eye problems during pre-test and post-test phases. The experimental group received a structured eye care bundle, while the control group received no intervention. Data were analysed using paired and unpaired t-tests, chi-square test, and descriptive statistics.

Results:

Results showed that, in pre-test both groups experienced common symptoms such as burning (50% in experimental and 33.3% in control group), itching (13.3% vs 23.3%), eye redness (16.6% vs 23.3% , dryness (6.6% vs 26.6%), blurred vision (13.3% vs 13.3%), and headache (20%vs26.6%). After the intervention, in post-test there is a marked reduction in symptoms in the experimental group that is burning reduced to 3.3%, eye pain to 0%, dryness to 3.3%, blurred vision to 0%, and headache 0%, which was statistically significant ($p<0.05$) where as in control group there was a persistence

or worsening of symptoms, which was significantly increased in tearing (p=0.003), dryness (p=0.007), blurred vision (p=0.007), and headache (p=0.004). The post-test mean score of eye problems was significantly lower in the experimental group (3.03 ± 2.74) compared to the control group (12.50 ± 6.43) (t=7.409, p=0.000).

Conclusion

The eye care bundle was highly effective in reducing the frequency and severity of common eye problems among non-teaching staff, whereas symptoms worsened in the control group without intervention. Implementation of structured eye care practices in occupational settings is recommended to improve visual health, productivity, and quality of life among employees.

Keywords: Eye care bundle, non-teaching staff, occupational health, eye problems, intervention study.

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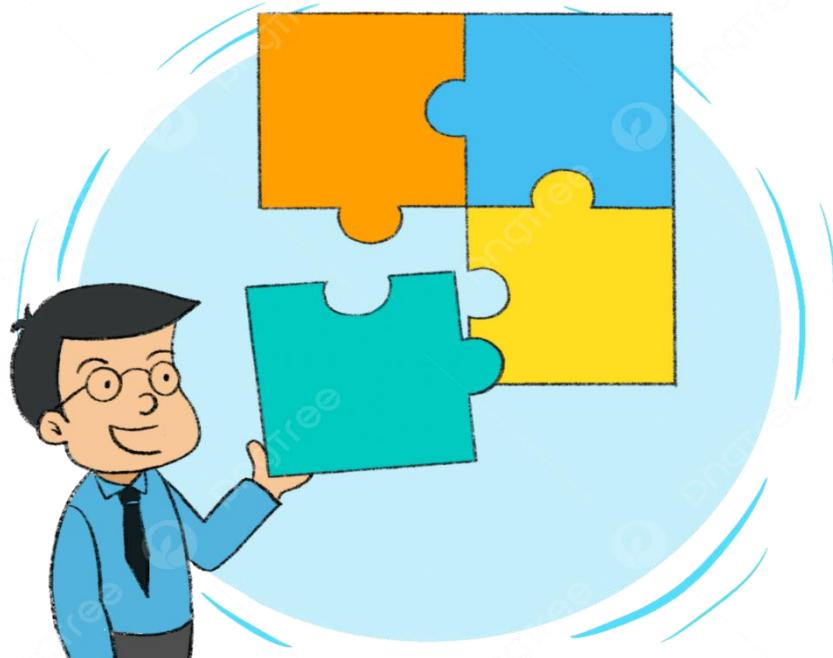
CHAPTER-I

INTRODUCTION

Our world has moved from a manufacturing society to an information society. In the 21st century, we are living in a highly sophisticated environment, where computers and mobiles became one of the most required electronic devices commonly used by all age groups. Globally, personal computers are commonest office tools used in various institutions such as government offices, academic institutions, and banking systems[1].

Computer is a man-made machine which faithfully follows man-given orders and shortly gives man-wanted result. In the present world, inventions of computers recorded new heights in technological advancement, because of these improvements life has become so easy and comfortable. Computer will not permanently damage the eyes but also cause strain or exacerbate[2].

If one is sitting in front of computer screen for a longer hours, then he or she may suffer from blurred vision or feels irritated in the eyes, then it is called as Computer Vision Syndrome (CVS)[3].

The Computer Vision Syndrome also known as digital eye strain, consists of a group of visual symptoms that includes dry and irritated eyes, eye strain/fatigue, blurred vision, red eyes, burning eyes, excessive tearing, double vision, headache, light/glare sensitivity, slowness in changing focus and changes in color perception[4].

Studies have shown that, longer duration of occupation, prolonged daily usage of computer, improper sitting position and not adjusting computer brightness, all were associated with significantly presence of computer vision syndrome[5].

A comprehensive approach to eye care involves not only treatment, but also encompasses prevention, promotion, and rehabilitation for the incurable blindness as well as integrating with other stakeholders in the community.One of the other significant strategies for reducing eye strain is to take regular rest breaks and to perform eye exercises. Here nurses plays an important role in providing awareness and intervention programmes in prevention of computer vision syndrome[6].

NEED FOR THE STUDY

Nowadays, computer technology has become an essential part of the educational system. Computers are widely used by administrators, academic staff, and academic support staff to perform a variety of academic and administrative tasks. While the increased use of computers enhances productivity, eye health remains an important yet frequently neglected aspect of occupational health, particularly among non-teaching staff in institutional settings[7].

Prolonged use of computers can lead to various eye-related symptoms and complications, such as eye strain, which is considered the most common complaint among computer users. The National Institute for Occupational Safety and Health (NIOSH) reported that 70.6% of workers who used computers in their workplace suffered from eye strain[8].

Computer vision syndrome (CVS) is the leading occupational hazard in 21st century and its symptoms affect nearly 70 percent of all computer users.[8] Globally, CVS is one of the major public health problem, which reduced productivity at work, increased error rate, reduced job satisfaction and impaired visual abilities. A worldwide data show nearly 60 million people suffering from CVS and 1 million new cases occurring every year.[9] With low availability and utilization of personal protective equipment, increased workload and the limited break time at work place causing high burden of CVS[9].

Vision disturbance is a silent enemy that only appears after long period of continued stress to the eyes due to use laptops, mobile internet and other technology gadgets. In India Over 75 percent of young software professionals and IT students reported to self-related vision discomfort. Computers have now become basic and essential

desktop equipment in almost every establishment. Worldwide, approximately 90 million adults use computers regularly. In the world it has been estimated that, nearly 60 million people experience vision problems as a result of computer use. The computer population in India is 20 million plus and 80% of them (16 million) have discomfort due to vision problem. The prevalence of eye symptoms among Computer workers ranges from 25% to 93% as reported by various investigators[10].

Several research studies have shown that eye exercises have an effect in reducing eye strain, eye fatigue and improving vision among computer staffs. A majority of the studies have additionally shown that the prevalence of eye strain is associated with an increase in the time spent on computer. Visual function is important for optimal orientation in functional and social life, and it has an effect on physical and emotional wellbeing. Visual impairment affects all aspects of life and is related to quality of life. Despite of several research evidence, non-teaching staff in institutional settings remain to be an under covered researched group. Their occupational exposure to prolonged visual tasks and screen time places them at risk, yet an interventions like eye care bundles can be widely studied in this population. Hence, the study was undertaken to evaluate the effectiveness of an eye care bundle on selected eye problems among non-teaching staff working at Sri Devaraj Urs Academy of higher education and research campus[11].

STATEMENT OF THE PROBLEM

Effectiveness of Eye Care Bundle on Common Eye Problems among Non-Teaching Staffs Working at SDUAHER Campus, Kolar.

OBJECTIVES OF THE STUDY

1. To assess the common eye problems among non-teaching staff by using Computer vision syndrome questionnaire.

2. To evaluate the effectiveness of eye care bundle on common eye problem among non-teaching staffs within and between experimental and control group.

3. To find out the association between common eye problems among non-teaching staffs with selected socio-demographical variables.

OPERATIONAL DEFINITION

EFFECTIVENESS: In this study, it refers to the extent to which an eye care bundle will reduce the common eye problems among non-teaching employees.

EYE CARE BUNDLE: It refers to the group of exercises such as eye blinking tightly, eye blinking lightly, eye movement (right, left, up and down), figure of 8, pencil pushups, relaxation of eyes and splashing water.

COMMON EYE PROBLEMS: In this study it refers to eye related complaints by non-teaching employees such as burning, itching, feeling of foreign body, tearing, excessive blinking, eye redness, eye pain, heavy eyelids, dryness, blurred vision, double vision, difficulty in focusing near vision, increased sensitivity to light, coloured halos around objects, feeling eye sight worsening and headache.

NON-TEACHING STAFFS: In this study, it refers to the non-academic staffs working with computers for more than 6 hours per day.

NULL HYPOTHESIS

H$_{01}$: There was no significant difference between experimental and control group on common eye problems among non-teaching staffs after implementation of eye care bundle.

H$_{02}$: There was no significant association between common eye problems among non-teaching staffs with selected socio-demographic variables.

THEORETICAL FRAMEWORK

A theory is set of concepts, definitions, relationships and assumptions that project a systemic view of phenomenon. (Potter &Perry). The present study aims to evaluate the Effectiveness of Eye Care Bundle on Common Eye Problems among Non-Teaching Staffs.

The theoretical frame work adopted for the present study was General system theory which was abstracted by Ludwig Von Bertalanffy (1968). This theory takes in account the interrelationship between parts and the whole, which has vast implication in nursing. In this theory, system consists of set of interacting components within a boundary that filters the type and the rate of exchange with the environment.

 Systems are composed of both structures and functional components. Structure refers to the arrangements of the parts at a given time and function is the process of continuous change in the system as matter, energy and information are exchanged with the environment.

All living systems are open systems, which promote the exchange of matter, energy and information with other systems (sub-systems) and environment (supra- system). The exchange within open system, between open system and their supra system is

continuous. The dynamic balance within and between the system, the subsystem and the supra system helps to create and maintain internal stability. The change in one part of the system creates change in other parts. In all systems, activity can be recorded into an aggregate of feedback circuits such as input, throughput and output. The openness of human system made the investigation to assess the relationship among the factors that affect the person which includes the influence of subsystem and supra system.

The theory consists of 4 components such as input, throughput, output and feedback.

INPUT:

According to Ludwig Von Bertalanffy (1968), the input refers to any form of energy, information or material that enters into the system through it boundaries. In the present study non-teaching staff is a system and has input within the system itself (subsystem) and acquired from the environment (supra system).The input includes non-teaching staffs background, information like age, gender, occupation, place of residence, aware on vitamin A sources, practice on eye exercise, use on glass or contact lens and previous eye injury. This may influence the improvement on common eye problems among non-teaching staffs. In the present study, input refers to teaching cum demonstration and re-demonstration of eye exercises to non-teaching staffs.

THROUGHPUT:

It is the process that occurs at some point between the input and output. It enables the input to be transformed into output in such a way that, it can be readily used by the system. In this study throughput refers to the process of transformation of information on eye care bundle to non-teaching staffs.

Output is the end result of the product of system. Any energy, information or material that is transferred to the environment. In this study it refers to improvement seen among non-teaching staffs on common eye problems.

FEEDBACK

Feedback is the process whereby the output of the system is redirected to the input of the same systems. It may be positive or negative or neutral. In the present study the feedback refers to the effectiveness of eye care bundle and it can be tested through null hypothesis as follows;

➢ Comparing the difference between experimental and control group score on common eye problems among non-teaching employees.

➢ Find out the association between common eye problems among non-teaching employees with selected socio-demographic variables.

Theoretical framework

In-Put

Throughout

Output

P R E T E S T

Socio-Demographic Variables
- Age
- Gender
- Occupation
- Place of residence
- Awareness of vitamin A
- Practice of eye exercises
- Use of glass/contact lens
- Previous eye injury

Practicing eight eye care bundles

Process of improving in common eye problems

P o S T T E S t

Improvement in common eye problems

No improvement in eye problems

Feedback
Testing of hypothesis
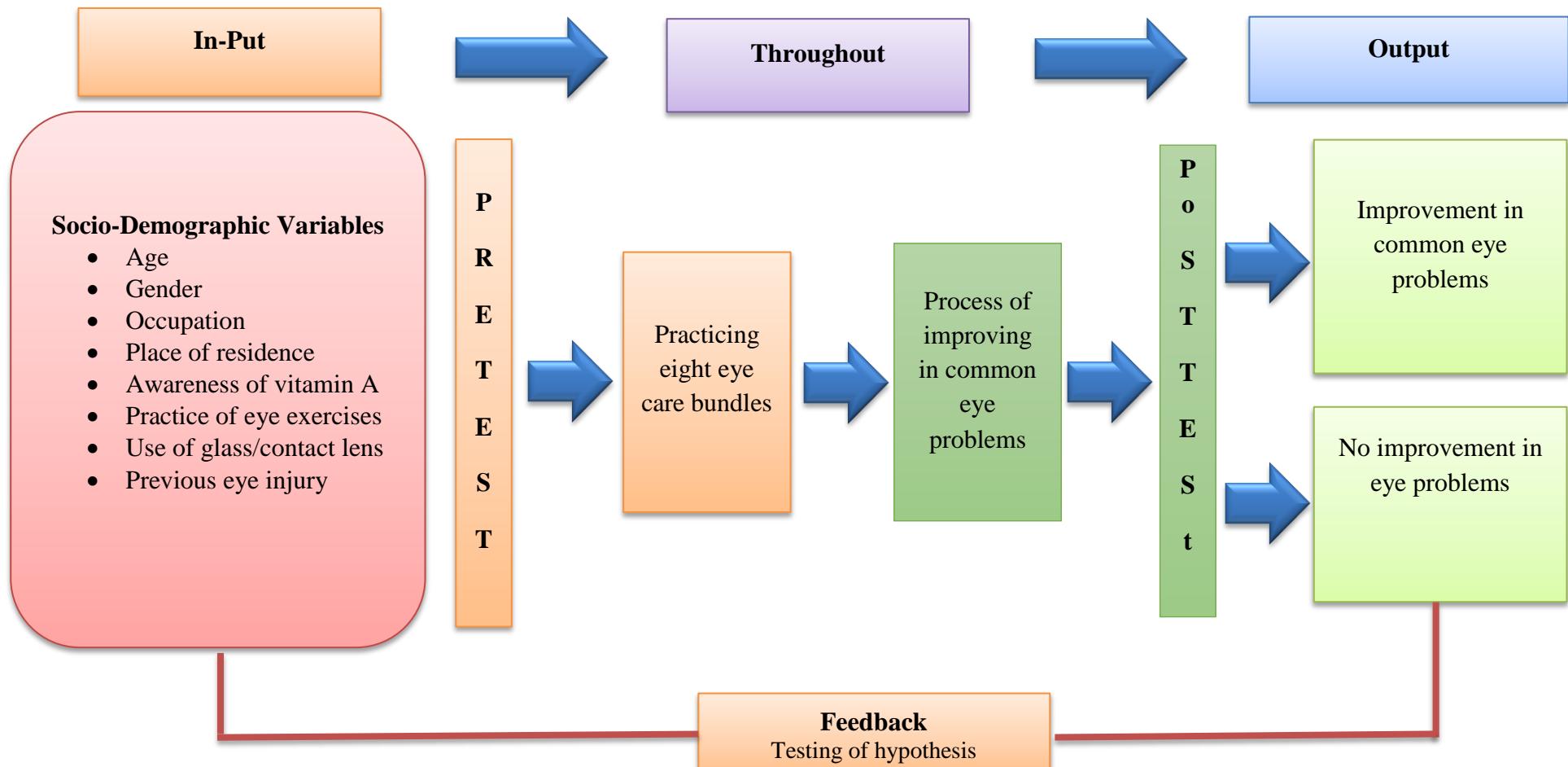
Fig No-1: Modified conceptual framework based on Ludwig Von Bertanlanffys general system theory (1968)

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SUMMARY

This chapter dealt with the statement of problem, objective of the study, operational definition, null hypotheses and theoretical frame work.

CHAPTER II

REVIEW OF LITERATURE

"A literature review is not just a summary, but a synthesis of existing knowledge."
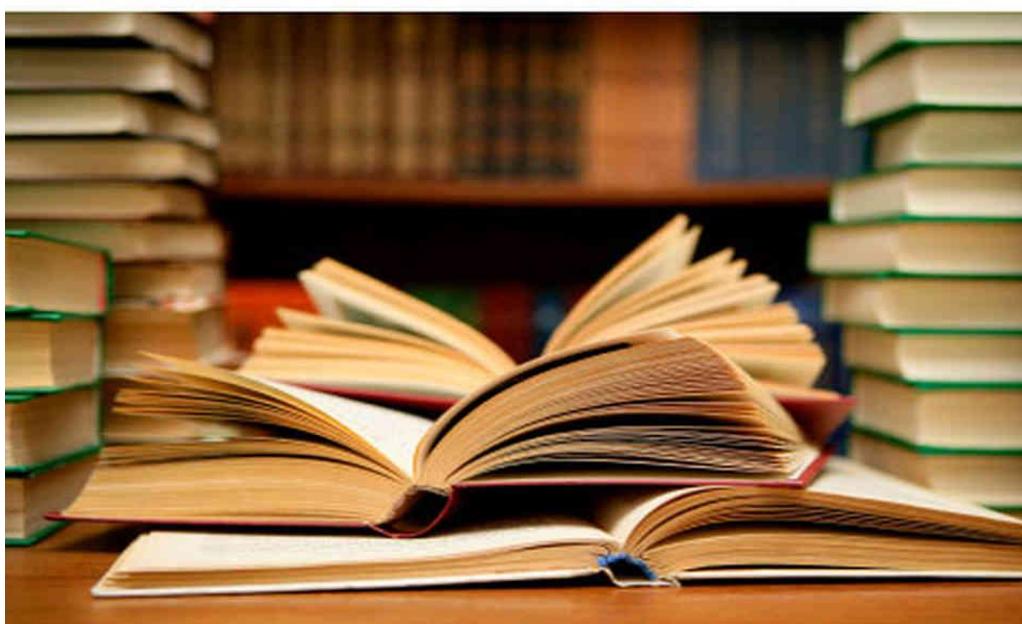
CHAPTER-II

REVIEW OF LITERATURE

A review of the literature is regarded as a significant investigation into any area of inquiry. It provides in-depth understanding of the research problem. Finding out what is already known, what has been tried to be discovered by others, and what issues need to be resolved is helpful to researches.

The review of literature related to this study presented as follows:

1. A study was conducted on to assess the prevalence of computer vision syndrome among 800 IT employees at Puducherry. By using non probability convenience sampling technique, data was collected by CVS-Q Scale. The results revealed that majority of the IT employees had excessive blinking (80.4%) and headache (73.6%) as the important symptoms of computer vision syndrome. Most of them (69.5%) were had felt that their sight was worsened and increased sensitivity to lights. Nearly (68.9%) IT employees had dryness of the eyes and burning sensation while doing work in computer. This present study concluded that the IT employees are found to be vulnerable occupational groups due to prolonged exposure to digital media working conditions, lack of regular monitoring and inspections, unaware of computer ergonomics to safe guard them. The study concluded that an Interventional plans like education awareness and teaching on ophthalmic exercises need to be advocated for the workers[12].

2. Cross sectional study on Prevalence and Causative Factors for Computer Vision Syndrome was conducted among the software professionals at the workplace of a multinational company. The results revealed that, the

prevalence of vision related problems was reported by 83.5% of subjects. Association between duration of computer use and visual symptoms were noted. Only 38.8% of them were aware of Computer Vision Syndrome. Symptoms were more in people who did not use anti-glare glasses. The study concluded that visual problems constitute an important part of computer vision syndrome. The study concluded that, there is a need to identify and treat computer vision syndrome[13].

3. A study to evaluate the benefits of eyes on taking breaks based on the 20-20-20 rule. The results showed that decrease in the duration of computer work and the duration of breaks, along with an increase in the number of breaks taken per day was observed as a result of 20-20-20 rule reminders ($p \leq 0.015$). No changes on any binocular parameter were observed after the management period ($p \geq 0.051$), except for an increase in accommodative facility ($p = 0.010$). Dry eye symptoms and DES decreased with the rule reminders ($p \leq 0.045$), although this improvement was not maintained one week after discontinuation ($p > 0.05$). No changes on any ocular surface and tear film parameter were observed with the rule reminders ($p \geq 0.089$). The study concluded that the 20-20-20 rule is an effective strategy for reducing DES and dry eye symptoms, although 2 weeks was not enough to considerably improve binocular vision or dry eye signs[14].

4. A cross-sectional study was conducted on smartphone use and its impact on Ocular Health among University Students in Saudi Arabia. For the study 760 students were selected from Medical and Pharmacy Colleges by multistage random sampling technique. The results revealed that out of 760 students, 546 (71.8%) responded. The overall prevalence of smartphone use was

90.84%. However, the age range for the beginning of smartphone use was 12-18 years old (68.3%). In addition, the daily duration of smartphone use was 4-6 h/day (30.2%). Furthermore, females believed that they use smartphone more than usual compared to males. Moreover, ocular pain and/or dryness after prolonged time spent on smartphone use were more among smartphone users (39.7%). Finally, most of the students (66.0%) had one or more ocular problems after smartphone use. The study concluded that there is an association between smartphone use and occurrence of ocular manifestations. Health education programs on smartphone use and its ocular hazards are highly recommended[15].

5. A study to determine the effectiveness of eye exercises on Computer vision Syndrome among medical students was conducted at Faculty of Medicine, Universitas Sumatera Utara, and Indonesia. The study used analytical true experimental with a Pre-test Post-test Control Group Design. Sample consisted of 86 respondents who were divided into two groups: control and experimental (intervention) groups. Each group consisted of 43 respondents who were sampled randomly using the simple random sampling technique. Data were collected through the Computer Vision Syndrome Questionnaire (CVS-Q) and analyzed using a statistical software application with a p-value of < 0.05 considered significant. The results showed that a decrease in the score of Computer Vision Syndrome in the experimental (intervention) group after the eye exercise was observed with a p-value of 0.001 (<0.05). The study concluded that eye exercise has an effect on the Computer Vision Syndrome[16].

6. A study to assess effectiveness of ophthalmic exercises on visual discomfort among computer workers was conducted at selected company, Bangalore. The findings of the study revealed that. the computer workers had significant reduction in the mean visual discomfort score after ophthalmic exercise in the experimental group, t=38.5 (p=0.001)[17].

7. As study to assess the effectiveness of Home-Based Pencil Pushups (HBPP) therapy was conducted among patients with symptomatic convergence insufficiency. Data was collected prospectively on 16 patients who were diagnosed with convergence insufficiency beginning in January 2009. The study group was composed of ten male and six female patient. The duration of symptoms, refractive error, distant and near deviation angles, and near point of convergence (NPC) prior to and after 12 weeks of HBPP therapy were measured in all patients. After 12 weeks of HBPP therapy, the mean deviation angle of exophoria decreased to orthophoric at distant and 4 PD at near. The mean value of NPC decreased to 14.4cm. Twelve weeks of HBPP therapy appears to be easy, cost-free and effective therapy for patients with symptomatic convergence insufficiency[18].

8. An observational study to assess the role of eye exercises in improving performance of professionals working with computer was conducted at Dhanvantri College of Nursing in Namakkal District, Tamil Nadu. .Using one group pre and post-test research design, 50 samples were selected. The results revealed that there was significant change in eye strain in duration and severity after the intervention. Significant change was observed in tearing of eye in severity after intervention, dryness of the eye was reduced significantly after the intervention, head ache and neck pain was significantly

reduced in severity and duration after the intervention. Regarding the intervention i.e., the eye exercises 64% have the opinion that it is good and also it will help to improve their performance. Remaining 36% opine that it is only an average intervention, but surely, they don't have any negative opinion regarding the intervention[19].

9. A true experimental on effectiveness of eye exercises among computer workers was conducted at Dhanvantri College of Nursing in Namakkal District, Tamil Nadu. Using purposive sampling technique 50 samples selected. Using Self-administered structured questionnaires data on visual discomfort was assessed. Then an ophthalmic exercises were taught to the company workers and they were asked to perform the exercise every day for 1 week. After a week, the visual discomfort was reassessed. The study result showed that the demographic variable age had shown statistically significant association with the post-test level of visual discomfort among computer workers at $p < 0.05$ level, and the other demographic variables had not shown statistically significant association with the post-test level of visual discomfort among computer workers. The study concluded that the computer workers had a reduction in visual discomfort score after ophthalmic exercise and is also an effective method to prevent further complication that can be caused due to the computer vision syndrome[20].

10. A study to assess the effectiveness of Educational Intervention on Computer Vision Syndrome was conducted among Computer Users conducted at Shri Vinoba Bhave College of Nursing, Silvassa, Dadra and Nagar Haveli. Using quasi-experimental interventional design, Seventy-five computer operators were included in the study. The results revealed that following educational

intervention by 1 and 3 months, the total-eye-complaints score, total-knowledge score, and total-protective ergonomic practices scores showed a statistically significant difference. Additionally, after 1 and 3 months, the overall workstation score showed a substantial mean difference. The study concluded that, the educational intervention regarding Computer Vision Syndrome and its preventive ergonomic practices, computer user's observed eye symptoms decreased, their knowledge about Computer Vision Syndrome improved. Their protective ergonomic practices and workstation proposal were remodeled [21].

11. An experimental study to assess the Impact of Eye Exercises on Myopia and Visual Acuity among Patients Aged betweenb15 to 30 years was conducted at Medical Technical University, Medical Technical University, Sofia, Bulgaria. The optometrist assessed the refractive errors, visual acuity and auto-refractometer, followed by eye exercises treatment was done. The result was found to be significant with a p-value=0.0281<0.05. The study concluded that, eye exercises provide an enhancement in visual acuity, ocular health, and correct the refractive error among myopia patients resulting in better vision[22].

12. A study on effects of conventional exercise program and ocular muscle retraining was conducted among UG medical students presenting symptoms related to neck and eye strain due to smart phone adversity at Dr. Ulhas Patil College of Physiotherapy, Jalgaon, India.The study was a pre-test post-test experimental study which included UG medical students, both male and female, between age group 19-25 having neck pain and asthenopia symptoms (Smartphone Adversity) for 1 year. The treatment protocol

consisted of conventional treatment program and ocular muscle retraining for 4 weeks. Pre and post assessment was done using the outcome measure- Ocular Surface Disease Index (OSDI), Numerical Pain Rating Scale (NPRS) and Neck Disability Index (NDI). The results revealed that, there was a significant difference in all the three outcome measures after post intervention, which was statistically significant at p<0.001 level. The study concluded that the conventional exercise program and ocular muscle retraining were effective in reducing neck pain, disability and asthenopic symptoms in UG medical students with text neck syndrome and asthenopic symptoms due to smartphone adversity. Hence, this structure exercise regimen can be helpful to combat the effects of smartphone adversity[23].

Chapter-III

Research Methodology

"The eyes are the window of the soul."

CHAPTER-III

METHODOLGY

Research methodology organizes all the components of the study in a way that is likely to lead a valid answer to the sub problems that have been posed.

This chapter deals with the methodology of the present study and it includes research approach, research design, setting, sample and sampling technique, development and description of the instrument, data collection and plan for data analysis.

AIM OF THE STUDY

The present study aimed to evaluate the Eye Care Bundle on Common Eye Problems among Non-Teaching Staffs.

RESEARCH APPROACH

For the present study a quantitative research approach was used.

RESEARCH DESIGN

The term research design refers to the researcher's overall plan to obtain answers to the research question. For the present study researcher used true experimental research design and it is depicted as:

Experimental group	O1	X	O2
Control group	O1	----	O2

SETTING OF STUDY

Setting refers to the area where the study was conducted. The current investigation was carried out among Non-teaching staffs working at SDUAHER Campus, Kolar.

POPULATION

The population refers to the target population which represents the entire group or all the elements like individuals or objects that meet certain criteria for inclusion in the study. In the present study population refers to non-teaching staff working at university campus.

SAMPLE AND SAMPLE SIZE

Sample refers to a portion of population which represent the entire population. For the present study, sample consists of Non-teaching employees working at Sri Devaraj Urs Academy of Higher Education and Research, campus and using computers for more than 6 hours.

The sample size is 60, in that 30 were taken to experimental and 30 were in control group.

SAMPLING TECHNIQUE

Sampling defines the process of selecting a group of people or other elements to conduct a study (Burns and Groove 2002). For the present study simple random sampling technique was adopted.

CRITERIA FOR SELECTING THE SAMPLE

Inclusion criteria:

The non-teaching staffs who were;

- Having computer vision syndrome

- Working with computer more than six hours

- Between the age group of 25 to 60 years

Exclusion criteria:

The non-teaching staffs who were;

- Suffering with glaucoma, cataract, diabetic retinopathy, hyperopia (farsightedness), myopia (near sightedness) and eye infections.

DATA COLLECTION TOOL

The tools for the study as follows:

Section-A: Socio-demographical variables: It consists of age, gender, occupation, area of residence, awareness on vitamin A sources, practice of eye exercises, use of spectacles and previous eye injury.

Section-B: Computer vision syndrome questionnaire a standardized questionnaire prepared by : It consists of common eye problems such as burning, itching, feeling of foreign body, tearing, excessive blinking, eye redness, eye pain, heavy eyelids, dryness, blurred vision, double vision, difficulty in focusing near

vision, increased sensitivity to light, coloured halos around objects, feeling eye sight worsening and headache.

DEVELOPMENT AND VALIDATION OF THE CONTENT

The eye care bundle content along with video was prepared under the guidance of Researcher and ophthalmologist, was sent for validation to subject experts for its adequacy of the content and corrections were made accordingly.

ETHICAL CLEARANCE

The institutional ethics committee of Sri Devaraj urs College of Nursing, Tamaka. Kolar, provided ethical clearance prior to the study's conducted.

DATA COLLECTION PROCEDURE

The data was collected from 06/11/2024 to 04/01/2025 by using following steps;

Step 1: Preparatory phase: Ethical clearance was obtained from the institutional ethical committee of Sri Devaraj Urs College of Nursing, and written permission was obtained from the Medical Superintendent, R L Jalappa Hospital and Research Centre and Registrar of SDUAHER Tamaka, Kolar. All nursing researchers were trained for eight eye care exercises and prepared video of the same under the guidance of ophthalmologist. Then prepared content was sent to subject experts for validation. Using simple random sampling technique 60 non-teaching staffs were included in the study who fulfilled the inclusion criteria, in that 30 staffs who were working in the academy were taken to experimental and another 30 who were working at RLJHRC were taken to control group.

Step 2: Intervention phase

Then these participants were explained about the study and its purposes and an informed consent was obtained while assuring them confidentiality of the information.

Further these participants were assessed for socio-demographic data followed by computer vision syndrome questionnaire. On the same day, researcher demonstrated eye care exercises individually to the experimental group that is, eye blinking tightly for 20 times, eye blinking lightly for 20 times, figure of eight for 20 times, pencil-push-ups for 20 times, eye movements clockwise and anti-clock wise for 20 times, closing and relaxation of eyes for 20 times and splashing of water on eyes for 5 times but not to the control group.

The same time contact numbers of experimental group participants were collected, and created whatsapp group while sending an alarm message and video on every afternoon as a reminder to practice the eye care exercises.

The procedure was observed in the morning and evening through whatsapp group message. The same repeated everyday two times for two months.

Step-3: Closing phase:

After two months of intervention, a post-test was conducted with the same tool for both experimental and control group. Then collected data was analyzed using descriptive and inferential statistics.

PLAN FOR DATA ANALYSIS

The following descriptive and inferential statistics were used to analyze the data:

1. Socio-demographic variables were analyzed using frequency and percentage.

2. Effectiveness of Eye Care Bundle on Common Eye Problems among Non-Teaching Staffs between experimental and control group were analyzed using frequency, percentage, mean, standard deviation and unpaired t test.

3. The chi square test was used to find out the association between eye care bundle with selected socio-demographic variables in experimental and control group.
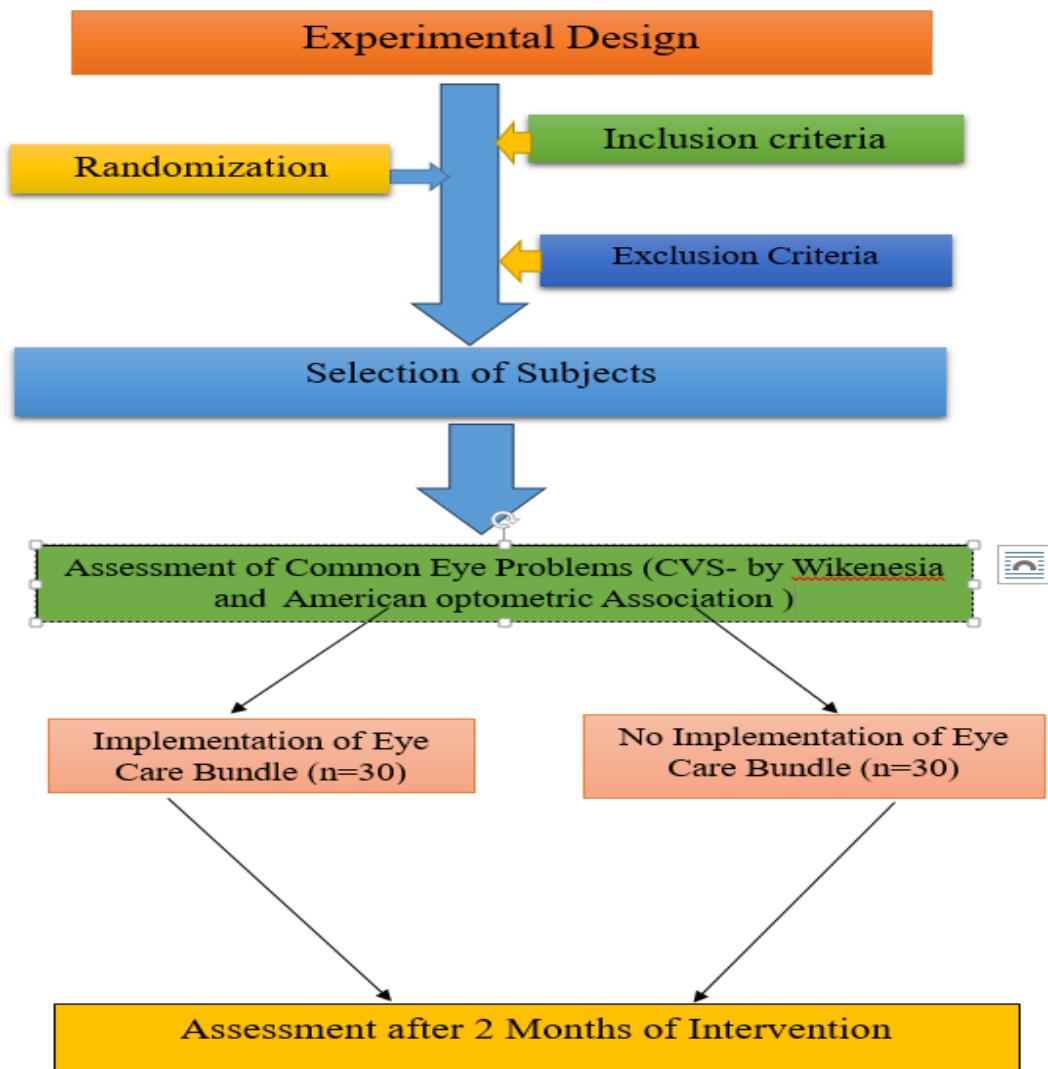
SUMMARY

This chapter dealt on research approach, design, setting, population, sample, and sampling process, development and description of the tool, and method of data collection. Upcoming chapter deals on presentation of results based on the collected data analysis.

Chapter-IV

Data Analysis And Interpretation

CHAPTER -V

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of data collected from non-teaching staffs using standardised questionnaire on computer vision syndrome. The results are computed using descriptive and inferential statistics and presented as below mentioned objectives;

Objective of the study

1. To assess the common eye problems among non-teaching staffs by using Computer vision syndrome questionnaire

2. To evaluate the effectiveness of eye care bundle on common eye problem among non-teaching staffs within and between experimental and control group.

3. To find out the association between common eye problems among non-teaching staffs with selected socio-demographical variables.

Based on the analysed data, results were presented under the following headings;

Section-I: Distribution of non-teaching staffs based on their socio-demographical variables

Section-II: Distribution of non-teaching staffs based common eye problems

Section-III: Effectiveness of eye care bundle among non-teaching staffs within and between groups

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Section- IV: Association between common eye problems among non-teaching staffs with selected socio-demographical variables between experimental and control group.

DISTRIBUTION OF NON-TEACHING STAFFS BASED ON THEIR SOCIO-DEMOGRAPHICAL VARIABLES

This section deals with Socio-demographical variables of non-teaching staffs. Before assessing the common eye problems, they were assessed for their Socio demographic variables and presented from table-1.

Table-1: Distribution Socio-demographical variables of non-teaching staffs

N =60

SI NO	VARIABLES	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
	Age				
1.	25-35 years	17	**56.6**	20	**66.6**
2	36-46 years	07	23.4	7	23.4
3	46-56 years	06	20	3	10
	Gender				
4	Male	15	**50**	14	46.6
5	Female	15	**50**	16	**53.4**
	Occupation				
6	Clerk	5	16.7	5	16.8
7	Accountant	7	23.3	2	6.6
8	Computer Operator	18	**60**	23	**76.6**

	Place of Living				
9	Urban	21	**70**	14	46.6
10	Rural	9	30	16	**53.4**
	Awareness of Vitamin A Sources				
11	Yes	22	**73.3**	22	**73.4**
12	No	8	26.7	8	26.6
	Eye Exercise Practice				
13	Yes	9	30	8	26.6
14	No	21	**70**	22	**73.4**
	Use of Spectacles				
15	Yes	5	16.7	6	20
16	No	25	**83.3**	24	**80**
	Previous Eye Injury				
17	Yes	0	0	2	6.6
18	No	30	**100**	28	**93.4**

SECTION-II

DISTRIBUTION OF NON-TEACHING STAFFS BASED COMMON EYE PROBLEMS

This section deals with the first objective of the study that is to **assess the common eye problems among non-teaching staffs by using Computer vision syndrome questionnaire** and presented from table-2

Common eye problems of non-teaching staffs were categorized under three frequencies of occurrence such as Never, Occasionally, and Often/Always and the same is presented in table-2.

Table-2: Distribution of common eye problems among non-teaching staffs

N=60

PARAMETER	EXPERIMENTAL GROUP N=30						CONTROL GROUP N=30					
	NEVER		OCCASION ALLY		OFTEN/ ALWAYS		NEVER		OCCASI ONALLY		OFTEN/ ALWAYS	
	F	%	F	%	F	%	F	%	F	%	F	%
Burning	12	40	15	**50**	3	10	12	40	8	**26.6**	10	**33.3**
Itching	17	56.6	10	**33.3**	4	**13.3**	16	53.3	7	**23.3**	7	**23.3**
Feeling of a foreign body	23	**76.6**	6	**20**	2	6.6	22	**73.3**	6	20	2	6.66
Tearing	20	**66.6**	7	**23.3**	3	10	21	**70**	5	16.6	4	13.3
Excessive blinking	27	**90**	3	10	_	_	23	**76.6**	3	10	4	13.3

Eye redness	16	53.3	9	**30**	5	**16.6**	17	56.6	6	**20**	7	**23.3**
Eye pain	19	63.3	9	**30**	2	6.66	20	**66.6**	5	16.6	5	16.6
Heavy eyelids	24	**80**	4	13.3	2	6.66	23	76.6	3	10	4	13.3
Dryness	23	**76.6**	5	**16.6**	2	6.66	22	**73.3**	4	13.3	5	**26.6**
Blurred vision	17	56.6	9	**30**	4	**13.3**	21	70	5	16.6	4	13.3
Double vision	23	**76.6**	4	13.3	3	10	24	**80**	4	13.3	2	6.66
Difficulty for focusing near vision	27	**90**	1	3.33	2	6.66	19	63.3	5	16.6	6	20
Increased sensitivity to light	14	46.6	12	**40**	4	**13.3**	16	53.3	6	**20**	8	**26.6**
Coloured halos around objects	26	**86.6**	4	13.3	_	_	25	**83.3**	3	10	2	6.66
Feeling that eyesight is worsening	24	**80**	6	**20**	_	_	21	**70**	3	10	6	**20**
Headache	12	40	12	**40**	6	**20**	15	50	7	**23.3**	8	**26.6**

The above table on distribution of common eye problems among non-teaching staffs revealed that, even though eye-related complaints were prevalent among non-teaching staffs in both groups, but control group reported a slightly higher proportion of symptoms occurring often or always than the experimental group.

EFFECTIVENESS OF EYE CARE BUNDLE AMONG NON-TEACHING STAFFS WITHIN AND BETWEEN GROUPS

This section deals with the second objective of the study that is **to evaluate the effectiveness of eye care bundle on common eye problem among non-teaching staffs within and between experimental and control group** and presented from table-3 to table-4.

TABLE-3: EFFECTIVENESS OF EYE CARE BUNDLE BETWEEN EXPEERIMENTAL AND CONTROL GROUP

N=60

Group	Experimental Group (n=30)		Control Group (n=30)		MD	Unpaired t test	P value inference
	Mean	SD	Mean	SD			
Pre test	6.77	5.110	7.57	5.393	-0.80	−0.59	0.558 NS*
Post test	12.50	6.437	3.03	2.748	9.47	7.409	0.001 SS*

The above table shows the effectiveness of eye care bundle between experimental and control group.

The pre-test mean score of the experimental group **is 6.77 with SD of 5.11** whereas the mean score of control group is **7.57 with the SD of 5.39**. The calculated unpaired t value is greater (-0.59) than the p-value (0.55) indicating that there is no significant difference between experimental and control group before the administration of eye

care bundle. The post-test mean score of the experimental group is **12.50 with SD of 6.43** whereas the mean score of control group is **3.03 with the SD of 2.74**. The calculated unpaired *t* value is lower (7.40) than the p-value (0.001) indicating that there is a significant difference between experimental and control group after the administration of eye care bundle. Hence, the Eye Care Bundle was effective in improving common eye problems among non-teaching staffs in the experimental group.

TABLE-4: EFFECTIVENESS OF EYE CARE BUNDLE WITHIN EXPERIMENTAL AND CONTROL GROUP

Group	EXPERIMENTAL GROUP				CONTROL GROUP			
	Mean	SD	Paired t value	P value	Mean	SD	Paired t value	P value
Pre-test	6.77	5.11	3.55	0.001 SS*	7.57	5.39	3.20	0.003 SS*
Post test	12.50	6.43			3.03	2.74		

The pre-test mean score of the experimental group was **6.77 with SD of 5.11** whereas in the post-test mean score was **12.50 with SD of 6.43**. The calculated **paired t-value is greater (3.55)** than the **p-value (0.001)** indicating that there was a **statistically significant improvement (SS) seen** in the post-test scores after **Eye Care Bundle intervention.**

The pre-test mean score of the control group was **7.57 (SD = 5.393)** and the post-test mean score decreased to **3.03(2.748).**

The paired **t-value (3.203)** with a **p-value of 0.003** also shows a **statistically significant difference** between pre- and post-test scores, but here the difference is in the **opposite direction** — indicating a **decline in performance or knowledge** among the control group participants.

This could mean that without intervention, there was **no improvement**, and possibly even a **reduction in awareness or retention** over time.

ASSOCIATION BETWEEN COMMON EYE PROBLEMS AMONG NON TEACHING EMPLOYEES WITH SELECTED SOCIO-DEMOGRAPHICALVARIABLES

This section explores the association between common eye problems and selected socio-demographic variables among non-teaching employees. Factors such as age, gender, work duration, and use of visual aids may influence the occurrence of eye symptoms. Identifying these associations helps target preventive measures and improve eye health in the workplace.

TABLE-5: ASSOCIATION BETWEEN COMMON EYE PROBLEMS WITH DIFFERENT SOCIO DEMOGRAPHIC VARIABLES AMONG EMPLOYEES IN EXPERIMENTAL GROUP

Sl. no.	Variables	Below median <2	Above median >2	X^2	df	P value	Inference
1.	Age 25-36 36-46 46-56	11 3 2	7 4 3	1.103	2	0.576	NS
2.	Gender Male Female	9 7	6 8	0.536	1	0.464	NS
3.	Occupation Clerk Accountant Computer operator Any other	2 6 8 0	3 1 9 1	4.718	3	0.194	NS

#							
4.	**Place of living** **Urban** **Rural**	**14** **2**	**7** **7**	**5.0**	**1**	**0.025**	**SS**
5.	**Awareness of vit A** Yes No	14 2	8 6	3.519	1	0.061	NS
6.	**Practicing eye exercises** Yes No	5 11	4 10	0.26	1	0.873	NS
7.	**Using glass/contact lens** Yes No	1 15	4 10	2.679	1	0.102	NS
8.	**Previous eye injury** Yes No	0 16	0 14	1 (Fisher exact)	1	05	NS

This table 15 summarizes a statistical analysis(likely chi-square tests) conducted on an experimental group for evaluating the association between certain demographic variables and a median split (e.g., knowledge, attitude, or performance score categorized as "below median <2"or "above median >2")

The statistical analysis for the experimental group aimed to explore the association between selected demographic and behavioural variables with performance categorized as below or above the median. The results revealed that age was not significantly associated with performance (x^2 = 1.103, df=2, p =0.576), indicating that performance did not vary across age groups. Similarly, gender showed no significant association (x^2 = 4.718, df= 3, p=0.194), although some difference were observed in the distribution among various jog types

However, a significant association was found with place of living ($x^2 = 5.00$, df=1, p=0.025), where urban residents tended to perform better than rural participants. This was the only variable marked as statistically significant (SS), suggesting that place of residence played a meaningful role in performance outcomes.

Awareness of vitamin A, although close to significance , was not statistically significant ($x^2 = 3.519$, df = 1, p = 0.061). Practicing eye exercises ($x^2 = 0.873$) and the use of glasses or contact lenses ($x^2 = 2.679$, p = 0.102) both showed no significant relationship with performance. Furthermore, the data regarding previous eye injury Indicated that none of the participants with prior injury were included in the high-performing group, but due to lack of comparative data, no statistical inference was made.

In summary, among all variables assessed, only place 0f living showed a statistically significant relationship with the measured outcome. Other factors such as age, gender, occupation, awareness of vitamin A, eye exercises, and use of corrective lenses were not found to have a significant influence on performance within this experimental group.

TABLE-6 : ASSOCIATION BETWEEN COMMON EYE PROBLEMS WITH DIFFERENT SOCIODEMOGRAPHIC VARIABLES AMONG NON-TEACHING EMPLOYEES IN CONTROL GROUP

Sl no.	Variables	Below median <14	Above median >14	X^2	df	P value	Inference
1.	Age 25-36 36-46 46-56	10 5 0	9 3 3	3.553	2	0.169	NS
2.	Gender Male Female	10 5	5 10	3.333	1	0.068	NS
3.	Occupation Clerk Accountant Computer operator Any other	0 2 12 1	2 1 8 4	4.933	3	0.177	NS
4.	Place of living Urban Rural	6 9	8 7	0.536	1	0.464	NS
5.	Awareness of vit A Yes No	13 13 2	12 3	0.240	1	0.624	NS
6.	**Practicing eye exercises** **Yes** **No**	**7** **8**	**2** **13**	**3.968**	**1**	**0.046**	**SS**
7.	Using glass/contact lens Yes No	3 12	3 12	0.00	1	1.00	NS
8.	Previous eye injury Yes No	3 12	1 14	1.154	1	0.283	NS

The statistical analysis table 16 examines the association between various demographic and behavioural variable with a median score cutoff (<14 and >14), using the chi-square test (x). Eight variables were tested: age, gender, occupation, place of living, awareness of vitamin A, practicing eye exercises, using glasses/contact lenses, and previous eye injury.

For age, although the chi-square value was 3.553 with 2 degrees of freedom and a p-value of 0.169, it was not statistically (NS), indicating no strong association between age groups and the score category. Gender showed a chi-square value of 3.333 (df = 1, p = 0.058), which is close to significance but still falls under NS. Similarly, occupation and place of living had p-values of 0.464 respectively, showing no significant association with the score category. Awareness of vitamin A was listed but lacked statistical details in the table.

Chapter-V

DISCUSSION

"Evidence speaks , but discussion gives it meaning"

CHAPTER V

DISCUSSION

The current study's objective was to evaluate the effectiveness of eye care bundle on selected eye problem among non-teaching staff working at SDUAHER Campus, Kolar.

Data collected through random sampling technique from 60 non -teaching staff (30 experimental group and 30 control group) using standardized (CVS) questionnaire were analyzed and presented in the form of tables and graphs in chapter-IV. The following was discussed in relation to the findings:

Section -I -: Distribution of Non-teaching staffs according their Socio-demographic variables.

Age

With regard to age, in both the Experimental and Control Groups, the majority of participants were in the 25–35 years age category, accounting for 56.6% and 66.6% respectively. This finding is supported by **Hala Eid Mohamed and Intessar Mohamed Ansar**, who also reported that younger adults, particularly those in the early stages of their careers, are at higher risk of developing eye strain and related visual complaints.

Gender

With regard to gender, the Experimental Group, the majority of participants (56.6%) were aged 25–35 years, with an equal distribution of males and females (50% each). In the Control Group, most participants (66.6%) were also in the 25–35 years age category, and the majority were females (53.33%).

Occupation

Concerning occupation, In the Experimental Group, the majority of participants were computer operators (60%). Similarly, in the Control Group, most participants were also computer operators (76.6%).

Place of living

Related to place of living, In the Experimental Group, the majority of participants (70%) lived in urban areas, while in the Control Group, most participants (53.4%) resided in rural areas. This is supported by **Hala Eid Mohamed and Intessar Mohamed Ansar**, who emphasized that urban populations are more frequently exposed to digital devices and screen-based work, while rural populations may have different lifestyle exposures that influence ocular health.

Awareness of Vitamin A source

With regard to awareness of vitamin A, In both the Experimental Group (73.3%) and the Control Group (73.4%), the majority of participants reported being aware of Vitamin A sources. This finding is supported by **Hala Eid Mohamed and Intessar Mohamed Ansar**, who highlighted that awareness of Vitamin A and its dietary sources is generally high among educated working populations, reflecting its well-recognized role in maintaining eye health.

Practice of eye exercises

With regard to practicing eye exercises, in the Experimental Group, the majority of participants (70%) did not practice eye exercises, and in the Control Group, most participants (73.4%) also reported not performing them. This is consistent with the

findings of **Hala Eid Mohamed and Intessar Mohamed Ansar**, who noted that regular practice of preventive eye exercises is generally low among working adults.

Use of Glass

With regarding use of glass/contact lens in the Experimental Group, the majority of participants (83.3%) did not use visual aids, and in the Control Group, most participants (80%) also reported not using glasses or contact lenses. This finding is supported by **Hala Eid Mohamed and Intessar Mohamed Ansar.**

Previous eye injury

Regarding previous eye injury, In the Experimental Group, the majority of participants (100%) reported no history of previous eye injury, and in the Control Group, most participants (93.4%) also had no such history. This is supported by **Hala Eid Mohamed and Intessar Mohamed Ansar**, who similarly reported that eye injuries are rare among non-teaching and office staff, given their limited exposure to high-risk occupational hazards.

Section -II -: Assess the Common Eye Problems among Non-Teaching Staff Using Standard Questionnaire

Common eye problems in pre-test

In the pretest, most participants in both the Experimental and Control Groups reported not experiencing many of the common eye problems. For burning sensation, the majority (40% in both groups) never experienced it. Similarly, for itching, most participants (56.6% in the Experimental Group and 53.3% in the Control Group) had

no complaints. A majority also denied the feeling of a foreign body (76.6% and 73.3%) and tearing (66.6% and 70%).

Most participants did not report excessive bleeding (90% in the Experimental Group and 76.6% in the Control Group), and eye redness was absent in more than half (53.3% and 56.6%). For eye pain, the majority also reported no symptoms (63.3% and 66.6%). Similarly, heavy eyelids were not experienced by most (80% and 76.6%), and dryness was absent in 76.6% and 73.3%, respectively.

For blurred vision, the majority in the Control Group (70%) and more than half in the Experimental Group (56.6%) had no issues. Double vision was also largely absent (76.6% and 80%). Difficulty focusing near vision was not reported by 90% in the Experimental Group and 63.3% in the Control Group.

Increased sensitivity to light was not experienced by most participants (46.6% in the Experimental Group and 53.3% in the Control Group). Coloured halos were also mostly absent (86.6% and 83.3%). Regarding eyesight worsening, the majority reported no such problem (80% and 70%). Finally, for headache, the majority in the Control Group (50%) and 40% in the Experimental Group reported no symptoms.

 The research done by **Reddy et al. (2013)** found that a majority of computer users experienced occasional ocular symptoms, but not severe, highlighting the need for early preventive interventions. Similarly, **Shrestha et al. (2011)** observed that while most participants did not suffer from persistent visual problems, many were at risk of developing eye strain due to continuous screen exposure and poor visual hygiene practices.

Common eye problems in post test

In the **Experimental Group**, the majority of participants reported **no symptoms** for almost all common eye problems: burning (66%), itching (83.3%), foreign body sensation (96.6%), tearing (83.3%), excessive bleeding (86.6%), eye redness (83.3%), eye pain (90%), heavy eyelids (93.3%), dryness (93.3%), blurred vision (86.6%), double vision (86.6%), difficulty focusing near vision (80%), sensitivity to light (63.3%), coloured halos (93.3%), worsening eyesight (86.6%), and headache (70%).

In contrast, in the **Control Group**, the majority continued to experience symptoms such as burning (50% occasionally), foreign body sensation (60% occasionally), tearing (36.6% often), excessive bleeding (33.3% occasionally), eye redness (equal distribution, 33.3% in each category), eye pain (30% often), dryness (40% occasionally), blurred vision (63.3% occasionally), and headache (43.3% often/always). Only a few conditions such as double vision (56.6% never) and sensitivity to light (56.6% never) showed majority "no symptom" responses.

 The research done by, **Ansari & Abdelaziz (2019)** found that regular eye exercises reduced symptoms like eye strain, dryness, and headache among employees with prolonged computer use. Similarly, **Hedge & Borman (2018)** highlighted the effectiveness of visual breaks and eye care interventions in reducing eye discomfort in office workers.

Section III -: **Effectiveness of Eye Care Bundle on Common Eye Problems among Non-Teaching Employees Within and Between Experimental and Control Group**

WITHIN THE GROUP:

With regard to effectiveness of eye care bundle within the group the **Experimental Group**, the majority of participants reported **reduction or absence of common eye problems** after receiving the structured eye care bundle. Most participants no longer experienced symptoms such as burning, itching, tearing, eye pain, dryness, blurred vision, and headaches. This improvement is reflected in the mean eye problem score, which **decreased from 6.77 ± 5.110 in the pre-test to 3.3 ± 2.748 in the post-test**, with a statistically significant difference (t = 3.558, p = 0.001). This indicates that the intervention was effective in alleviating eye-related symptoms and enhancing overall visual comfort among the majority of participants.

In contrast, in the **Control Group**, the majority continued to report **ocular complaints**, including occasional or frequent burning, tearing, eye pain, dryness, blurred vision, and headaches. Correspondingly, the mean eye problem score **increased from 7.57 ± 5.393 in the pre-test to 12.50 ± 6.437 in the post-test** (t = 3.203, p = 0.003), showing a worsening of eye health among the majority of participants who did not receive any preventive intervention.

These findings align with previous studies demonstrating that structured eye care programs including ergonomic adjustments, visual exercises, and awareness campaigns effectively reduce visual fatigue and related symptoms in office workers (**Anshel , 2007; Reddy et al., 2013**). The results highlight that preventive

interventions can significantly improve eye health in the majority of employees, while lack of intervention may allow symptoms to persist or worsen.

BETWEEN THE GROUP :

In the **Experimental Group**, the majority of participants reported **reduction or absence of common eye problems** such as burning, itching, tearing, eye pain, dryness, blurred vision, and headaches after receiving the structured eye care bundle. This improvement is reflected in the **mean eye problem score**, which decreased from **6.77 ± 5.110 in the pre-test to 3.03 ± 2.748 in the post-test**, with a statistically significant paired t-value of **3.558** and $p = 0.001$ ($p < 0.05$). These results indicate that the intervention effectively reduced ocular symptoms and improved eye health for the majority of participants.

In contrast, in the **Control Group**, the majority continued to experience ocular complaints such as occasional or frequent burning, tearing, eye pain, dryness, blurred vision, and headaches. Correspondingly, the **mean eye problem score increased** from **7.57 ± 5.393 in the pre-test to 12.50 ± 6.437 in the post-test**, with a paired t-value of **3.203** and $p = 0.003$, indicating a statistically significant worsening of symptoms among the majority who did not receive any intervention.

Overall, these findings demonstrate that the **eye care bundle was effective in improving eye health and reducing common ocular problems** among the majority of non-teaching staff, while the absence of intervention resulted in a **persistence or worsening of symptoms** in the Control Group.

CHAPTER-VI

SUMMARY

"Summary connects data with understanding, & efforts with outcomes"

CHAPTER VI

SUMMARY

This chapter covers the studies overview, limitations, implications for nursing, and suggestions for additional research.

The present investigations objective was to assess the effectiveness of eye care bundle in common eye problems among non-teaching staff working at SDUAHER Campus, Kolar.

The objectives of the studies are:

1. To assess the common eye problems among non-teaching staff using standard questionnaire (Computer vision syndrome) questionnaire

2. To evaluate the effectiveness of eye care bundle on common eye problem among non-teaching employees within and between experimental and control group.

3. To find out the association between common eye problems among non-teaching employees with selected socio-demographical variables.

HYPOTHESIS

H01: There will be no significant difference between experimental and control group on common eye problems among non-teaching employees.

H02: There will be no significant association between common eye problems with selected socio-demographic variables.

Principle result of the research

1. With regard to age, in both the Experimental and Control Groups, the majority of participants were in the 25–35 years age category, accounting for 56.6% and 66.6% respectively.

2. With regard to gender, majority 53.4% in the control and 50% in experimental group) of staff's were females.

3. With regard to occupation, in both Experimental and control Groups, the majority of participants were computer operators, (60%) and 76.6% respectively.

4. With regard to place of living, the majority of participants (70%) in experimental group lived in urban areas, while in the Control Group, most participants (53.4%) resided in rural areas.

5. With regard to awareness of vitamin A, in both the Experimental Group (73.3%) and the Control Group (73.4%), the majority of participants reported being aware of Vitamin A sources.

6. With regard to practicing eye exercises, in the Experimental Group, the majority of participants (70%) did not practice eye exercises, and in the Control Group, most participants (73.4%) also reported not performing them.

7. With regarding use of glass/contact lens in the Experimental Group, the majority of participants (83.3%) did not use visual aids, and in the Control Group, most participants (80%) also reported not using glasses or contact lenses.

8. With regard to previous eye injury, In the Experimental Group, the majority of participants (100%) reported no history of previous eye injury, and in the Control Group, most participants (93.4%) also had no such history.

NURSING IMPLICATION

The study's conclusions have a lot of implications for nursing research, education, administration and practice.

NURSING ADMINISTRATION

- Nursing administrators should involve in formulating policies support employees in both hospital, community and college level.

- Nurse administrators should plan in conduct of seminar, workshop and conferences regarding the benefits of eye exercises among staff nurses and nursing students.

- Nursing administration plays a vital role in implementing the eye care bundle by ensuring proper planning, staff training and supervision.

NURSING PRACTICE

- The study has shown that there is a common eye problems among employees who are using computer daily. Hence it is very essential that, each one of the employees trained with eye exercises and reduces the eye problems.

- All the employees can involve in conducting or demonstrating the eye care bundles and improve the vision.

NURSING EDUCATION

- Nursing education programs can integrate eye care bundle practices to improve awareness, prevention and management of common eye problems.

NURSING RESEARCH

- This study helped nurse researcher to know how eye care bundles helped to reduce the common eye problems.

- Nurse researcher should take efforts to disseminate the findings of

research while presenting papers in national or international conference as well as publishing in journal.

LIMITATION

- The study will be limited to non-teaching employees who will be using electronic gadgets for more than 6 hours.

- The study will be limited to SDUAHER campus, Kolar.

RECOMMENDATIONS

- A similar study can be conducted in different ophthalmic settings to validate the findings.

- Effectiveness of eye care bundles in improving eye health and reducing selected eye problems can be evaluated on a larger sample.

- Effectiveness of eye care bundle in enhancing quality of life among individuals with selected eye problems.

CHAPTER-VII

CONCLUSION

"Conclusion Is Where Evidence

Meets Understanding"

Chapter –VII
CONCLUSION

The study on Effectiveness of Eye Care Bundle on Selected Eye problems among non-teaching staff working at SDUAHER campus Kolar. For this study, an experimental design including one experimental and one control group was employed. Through simple random sampling technique 60 sample were selected (30 for experimental and 30 for control group). Both the experimental group and control group were assessed for their socio-demographic data, refractive changes using an observational checklist, eye strain using a standardized structured (CVS) questionnaire. On the same day, the experimental group employees were demonstrated individually and in a group setting on the eye care bundle. The control group did not receive any demonstration or intervention. The researcher monitored the procedure twice daily—once in the morning through direct demonstration and observation, and again in the evening via WhatsApp message reinforcement. This procedure was repeated consistently twice daily for a period of two months. After two months of intervention, a post-test was conducted with the same tool for both experimental and control group. The study's conclusions showed that the eye care bundle was more effective in reducing selected eye problems among the experimental group compared to the control group, indicating that the intervention outperformed routine care in terms of effectiveness.

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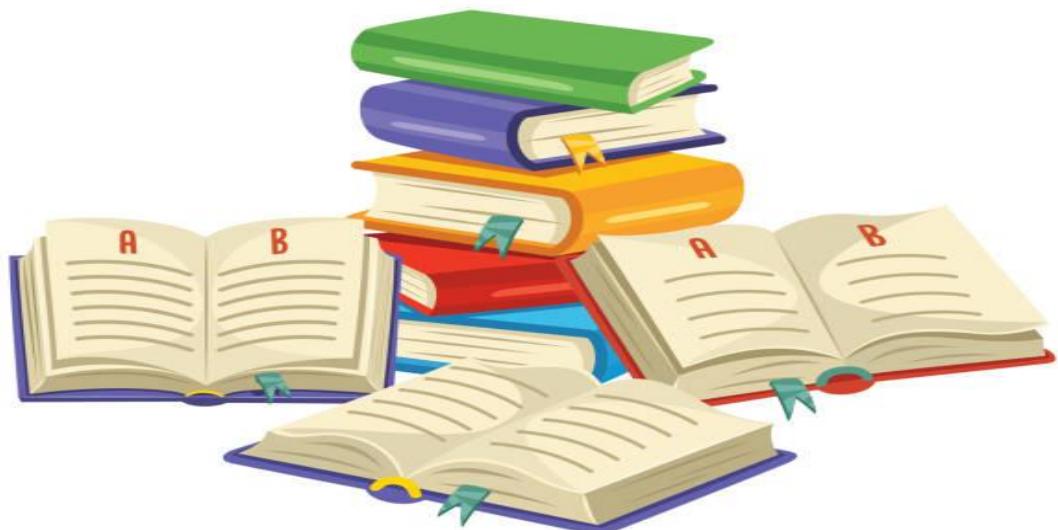
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ANNEXURE

Annexure-I

ETHICAL CLEARANCE CERTIFICATE

SRI DEVARAJ URS COLLEGE OF NURSING
Tamaka, Kolar-563 103, Karnataka.
(Affiliated to RGUHS, Bangalore and Recognized by KNC, Bangalore & INC, New Delhi)
ISO 9001:2015 Certified& NAAC Accredited
Phone: 9480880802   E-mail: sduconson@yahoo.com, Website: sducon.ac.in

Ref,:No. SDUCON/IEC/ UG-154/ 2023-2024   Date: 09-05-2024

From,

The Institutional Ethics Committee
Sri Devaraj Urs College of Nursing,
Tamaka, Kolar-563103

To

Dr G. Vijayalakshmi,
Principal,
Sri Devaraj Urs College of Nursing,
Tamaka, Kolar-563103

This is to certify that the Institutional Ethics Committee of Sri Devaraj Urs College of Nursing, Tamaka, Kolar has examined and unanimously approved III B.Sc.(N) students of Group-I Ms. Aiswarya Raju,, Ms.Chithra A, Ms.Gangothri KS, Ms.Sandra Sabu, Ms.Sharu Elsa Manoj, Ms.Sherin B Varghese, Ms.Sona Bij and Ms.Sreelakshmi S on Topic: **Effectiveness of Eye Care Bundle on Selected Eye Problems among the Non-Teaching Staffs Working at SDUAHER Campus, Kolar** under the guidance of Dr G. Vijayalakshmi, Principal of Sri Devaraj Urs College of Nursing and Co-Guide Mrs. Rashmi E Assistant Professor, Dept. of Nursing Foundation of SDUCON, Kolar.

Member Secretary
ETHICS COMMITTEE
SRI DEVARAJ URS COLLEGE OF NURSING
TAMAKA KOLAR - 563103.

Chairperson
CHAIR PERSON
ETHICS COMMITTEE
SRI DEVARAJ URS COLLEGE OF NURSING
TAMAKA KOLAR - 563103.

LETTER SEEKING PERMISSION TO CONDUCT THE STUDY

FROM

3rd year BSc (N)
Research Group 1
SDUCON
Tamaka, Kolar

TO

The Registrar
SDUAHER
Tamaka, Kolar

SUB: Requesting permission to collect data from non-teaching staffs of SDUAHER.

Respected madam,

This is for your kind information that we the 3rd year B.Sc Nursing 1st group research students are selected a research topic **"Effectiveness of eye care bundle on selected eye problems among the non-teaching staffs working at SDUAHER campus, Kolar".**With regard to the same we would like to collect data from non-teaching staffs of SDUAHER Campus. Hence I request you to grant permission for same and do the needful.

Thanking you   yours faithfully,

Enclosed document   Nursing Research Student (group-1)

1. Synopsis   3rd year B.Sc. (N)

2. Data collection tools

ANNEXURE-III

WRITTEN INFORMED CONSENT FORM

Study Title: Effectiveness of Eye Care Bundle on Selected Eye Problems among the Non-Teaching Staffs Working at SDUAHER Campus, Kolar.

Code Number:

I confirm that I have read and understood the information given to me about this study and my role in it. I had opportunities to ask questions and questions have been answered to my satisfaction.

Or

I confirm that all information about this study and my role in it has been read / explained to me by a member of the investigating team in a language that I understand. I had opportunities to ask questions and questions have been answered to my satisfaction.

b) I understand that my participation in this study is voluntary and that I am free to withdraw from the study at any time, without giving any reason and legal rights being affected.

c) I understand that my identity will not be revealed in any document or publication.

d) I agree not to restrict the use/publication of any data or results that arise from this study provided such use is only for scientific purposes.

e) I am aware that by agreeing to my participation in this investigation, I will have to give time for learning and assessment by the investigating team and that these assessments will not interfere with the benefits that I am entitled to or my daily routine.

f) I give my consent, voluntarily to take part in this study.

Signature of the study participants /Legally Acceptable Representative:

Name of the study participant: _____Date: _/_/_/_____

Place:

Study participant signature: _____

Name of the investigator: _____ Date: ___/___/_____

Place:

Study Investigator's Signature: _____

LETTER REQESTING OPINIONS AND SUGGESTIONS OF EXPERTS FOR ESTABLISHING CONTENT VALIDITY OF VIDEO TOOL

From,

Research Group (1)
3rd Year BSc Nursing
SDUCON
Tamaka, Kolar

To,
Dr .Rashmi Mam
Expert of ophthalmology
Tamaka, Kolar

Forwarded through,

(THE PRINCIPAL ,SRI DEVARAJ URS COLLEGE OF NURSING,TAMAKA,KOLAR)

Respected Madam/Sir,

Sub : Requisition for video validity letter

We are 3rd year BSc Nursing Research group no.01 (MEDICAL SURGICAL NURSING) of Sri Devaraj Urs College of Nursing ,have selected below mentioned topic for our research project to be submitted to Rajiv Gandhi University of Health Sciences, Karnataka, as a partial fulfilment of university requirement for degree in Bachelor of Science in Nursing.

TITLE: "EFFECTIVENESS OF EYE CARE BUNDLE ON SELECTED EYE PROBLEMS AMONG NON-TEACHING STAFFS WORKING AT SDUAHER CAMPUS, KOLAR."

With regard to this, may I kindly request you to validate my video tool for its appropriateness and relevancy . I am enclosing objectives of the study and tool. I would be obliged and thankful to hear from me.

Thanking you,   Your's sincerely

Enclosures: Research group I

> ➢ Statement of the problem   3rd year BSC (N)
> ➢ Objectives of the study
> ➢ Evaluation criteria checklist for tools
> ➢ Content validity certificate

STATEMENT OF PROBLEM

"A Study to assess the Effectiveness of Eye Care Bundle on Selected Eye Problems among the Non-Teaching Staffs Working at SDUAHER Campus , Kolar."

OBJECTIVES OF THE STUDY

1. To assess the common eye problems among non-teaching staff fusing standard questionnaire.

2. To evaluate the effectiveness of eye care bundle between experimental and control group as common eye problems.

3. To find out association between common eye problems with selected sociodemographic variables.

LETTER REQUISTION FOR VIDEO TOOL

From,

Research Group No:1

3rd year BSc Nursing

SDUCON

Tamaka ,Kolar

To,

Dr. Narendra B S

MBBS,DOMS,DNB

Senior Resident

RLJH ,Tamaka, Kolar

Respected Madam/Sir,

Subject: Requisition for video validity letter.

We are 3rd year BSc Nursing Research group no. 1 have selected below mentioned topic for the research project.

Title of the topic:

"Effectiveness of Eye Care Bundle on Selected Eye Problems among the Non-Teaching Staffs Working at SDUAHER Campus , Kolar.

THE OBJECTIVES OF THE STUDY ARE TO;

4. To assess the common eye problems among non-teaching staff fusing standard questionnaire.

5. To evaluate the effectiveness of eye care bundle between experimental and control group as common eye problems.

6. To find out association between common eye problems with selected sociodemographic variables.

Thanking you   Yours Faithfully

Date: Research Group no:1

Place: 3rd year BSc (N)

                                                                SDUCON, Tamaka,

Enclosure: Kolar

- Synopsis
- Tools

LETTER SEEKING PERMISSION TO CONDUCT RESEARCH STUDY

LETTER REQUESTING GRANTING PERMISSION TO CONDUCT STUDY

From,

Research Students

3rd year BSc Nursing

Sri Devaraj Urs College of Nursing

Tamaka,Kolar,563103

To,

Dr. Zeneath CJ

CNO Of RLJH & RC,

HOD Of Department Of

Medical Surgical Nursing

SDUCON, Tamaka, Kolar

Respected Madam,

Subject: Letter requesting permission to conduct study among non-teaching staffs   working at SDUAHER.

We , the 3rd Year BSc nursing students of group 01 , Sri Devaraj Urs College of Nursing have undertaken the project on the topic ,

"A Study to Assess the Effectiveness of Eye Care Bundle on Selected Eye Problems Among the Non-Teaching Staffs Working at SDUAHER Campus, Kolar"

I request to grant me permission to conduct study and collect necessary information.

Thanking You   Your' s Sincerely

Nursing research student(group-1)

3rd year BSC(N)

ANNEXURE-VII

LETTER SEEKING PERMISSION TO CONDUCT RESEARCH STUDY

LETTER REQUESTING GRANTING PERMISSION TO CONDUCT STUDY

From,

Research Students

3rd year BSc Nursing

Sri Devaraj Urs College of Nursing

Tamaka,Kolar,563103

To,

Dr. Krishnappa

Medical Superintendent

RLJH ,Tamaka ,Kolar

Respected Madam,

   Subject: Letter requesting permission to conduct study among non-teaching staffs   working at SDUAHER.

We, the 3rd Year BSc nursing students of group 01 , Sri Devaraj Urs College of Nursing have undertaken the project on the topic ,

"A Study to Assess the Effectiveness of Eye Care Bundle on Selected Eye Problems among the Non-Teaching Staffs Working at SDUAHER Campus, Kolar"

I request to grant me permission to conduct study and collect necessary information.

Thanking you   Your's sincerely

                                                   Nursing research student (group-1)

                                                   3rd year BSC (N)

TOOLS

INSTRUCTION TO PARTICIPANTS

Dear participant,

Section-A: Socio-demographic proforma

1. Age
    a. 25-35 years
    b. 36-46years
    c. 46-56years
    d. Above 56years

2. Gender
    a. Male
    b. Female

3. Occupation
    a. Clerk
    b. Accountant
    c. Computer operator

4. Residence
    a. Urban
    b. Rural

5. Do you aware of vitamin A source
    a. Yes
    b. No

6. Do you practice eye exercise
    a. Yes
    b. No

7. Do you use Glass/contact lens
    a. Yes
    b. No

8. Do you have any previous eye injury
    a. Yes
    b. No

Section-B: CVS Questionnaire

		Frequency			Intensity		Frequency x intensity		Frequency x intensity
		Computer vision syndrome questionnaire (CVS-Q)-Standard tool							
Sl. No.	**Parameter**	**Ne ver (0)**	**Occasion ally (1) sporadic episodes or once or a week**	**Often or always (2) (2 or 3 times a week or almost every day)**	**Mo der ator 1**	**Inte nse-2**		**Inte nse 2**	
1	Burning								
2	Itching								
3	Feeling of a foreign body								
4	Tearing								
5	Excessive blinking								
6	Eye redness								
7	Eye pain								
8	Heavy eyelids								
9	Dryness								
10	Blurred vision								
11	Double vision								
12	Difficulty for focusing near vision								
13	Increased sensitivity to light								
14	Coloured halos around objects								
15	Feeling that eyesight is worsening								
16	Headache								
	Total								

ANNEXURE-IX

MASTER SHEETS

Socio-Demographic Variables of Experimental Group

Sl no.	Age	Gender	Occupation	Place of living	Awareness of vitamin A	Eye exercise	Use of glass/ contact lenses	Previous eye injury
1	c	b	a	a	a	a	b	b
2	b	a	a	a	a	a	b	b
3	a	a	d	b	a	b	b	b
4	c	b	b	a	a	b	b	b
5	b	b	b	a	a	b	a	b
6	b	b	b	a	b	b	b	b
7	a	a	b	a	a	a	b	b
8	a	a	b	a	b	b	b	b
9	a	b	b	a	b	b	b	b
10	a	a	c	a	a	b	b	b
11	a	a	c	b	b	b	a	b
12	a	a	c	a	a	b	a	b
13	a	b	c	b	b	b	b	b
14	a	a	c	a	a	a	b	b
15	a	b	c	b	a	a	b	b
16	a	a	c	a	a	b	b	b

17	b	b	c	a	b	b	a	b
18	a	a	c	b	a	a	b	b
19	c	b	a	a	b	b	b	b
20	a	a	c	a	a	b	b	b
21	a	b	c	a	a	b	b	b
22	a	a	c	b	a	b	a	b
23	b	a	c	a	a	a	b	b
24	a	b	a	a	a	b	b	b
25	a	b	a	b	a	a	b	b
26	c	b	b	a	a	b	b	b
27	b	b	c	b	a	b	b	b
28	b	a	c	b	a	b	b	b
29	a	a	c	a	a	a	b	b
30	c	b	c	a	b	b	b	b

Socio-Demographic Variables of Control Group

SI. No.	Age	Gender	Occupation	Place of living	Awareness of vitamin A	Eye exercise practices	Use of glass/contact less	Previous eye injury
1	a	a	c	b	a	b	b	b
2	b	a	c	a	a	a	a	b
3	a	a	c	b	a	a	b	b
4	a	a	c	b	a	a	b	b
5	b	a	b	b	b	b	b	b
6	a	a	c	a	a	b	a	a
7	b	a	c	a	a	b	b	b
8	b	b	c	a	a	b	b	b
9	b	b	c	b	a	b	b	b
10	a	b	d	a	a	b	b	b
11	b	b	c	b	a	b	b	b
12	a	b	c	b	a	b	b	b
13	a	a	c	b	a	b	a	b
14	c	b	a	a	b	b	b	a
15	a	b	d	b	a	a	b	b
16	a	b	b	b	b	a	b	a
17	a	b	c	a	a	a	b	b
18	a	a	c	a	a	a	b	b
19	a	a	c	b	b	b	a	b

20	a	a	c	b	a	b	b	b
21	a	a	c	b	a	b	b	b
22	c	b	d	a	a	b	a	b
23	b	b	c	b	a	a	b	b
24	a	a	c	a	a	b	b	b
25	b	a	a	a	a	a	b	b
26	a	b	d	b	a	b	b	b
27	a	b	c	a	a	b	b	b
28	a	b	b	b	b	b	b	b
29	a	a	c	a	a	b	a	a
30	c	b	d	a	a	b	b	b

EXPERIMENTAL GROUP- PRE TEST

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
01	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	4
02	0	0	1	1	0	1	0	0	0	1	1	0	1	0	0	0	6
03	2	1	0	0	0	0	1	1	1	0	0	0	1	0	0	2	9
04	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	0	4
05	0	1	1	2	1	2	2	2	1	2	0	0	2	0	0	1	17
06	1	2	0	0	0	0	0	0	1	0	0	0	1	0	0	1	6
07	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	4
08	1	1	0	0	1	2	1	2	2	1	1	2	2	1	1	2	20
09	2	2	1	1	0	0	1	0	1	0	0	0	0	0	0	1	9
10	1	1	0	2	0	2	0	0	0	2	0	0	2	0	0	2	12
11	1	1	0	1	0	1	0	0	1	1	0	0	1	0	0	1	8
12	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	1	4
13	1	1	2	1	0	2	2	0	0	2	0	0	2	0	0	2	15
14	1	0	0	0	1	0	2	0	0	2	2	0	0	0	0	0	8
15	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	5
16	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
17	1	2	2	1	0	1	1	1	0	1	0	0	1	0	1	1	13
18	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3

19	0	0	0	0	0	1	0	2	2	1	2	2	1	1	1	1	14
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	4
22	1	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	5
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4
25	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	3
26	1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	4
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	4
29	2	2	1	0	0	0	0	0	0	0	2	1	0	0	1	2	11
30	1	1	0	0	0	0	1	1	0	1	0	0	0	0	0	0	5

EXPERIMENTAL GROUP POST TEST

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
01	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
02	0	1	0	0	0	0	0	2	0	0	0	2	1	1	0	0	7
03	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4
04	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06	0	0	0	1	1	0	0	0	2	0	0	0	1	0	1	0	6
07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	4
12	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	4
13	1	2	0	0	0	0	0	0	0	0	1	0	1	0	0	1	5
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	1	1	0	0	0	1	0	0	1	1	0	0	5
16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
17	1	0	1	1	0	0	0	0	0	1	0	1	0	0	0	1	6
18	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0	1	5
19	0	0	0	0	1	1	0	0	0	1	1	2	1	0	1	1	9

20	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
21	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
22	1	0	0	0	0	0	1	0	0	1	0	0	1	0	1	1	6
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
27	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0	1	6
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
30	1	1	0	1	1	0	1	0	0	0	0	1	1	0	0	1	8

CONTROL GROUP PRE-TEST

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
01	0	0	0	0	0	0	2	0	0	0	0	2	0	2	0	1	7
02	0	1	0	0	0	0	1	0	0	1	0	1	0	0	1	0	5
03	1	2	0	1	0	0	0	2	0	0	2	0	0	0	0	0	8
04	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05	0	0	0	0	0	0	0	0	0	2	0	1	1	0	0	1	5
06	1	1	1	1	1	2	1	1	1	2	1	0	1	1	1	1	17
07	2	0	1	0	0	1	1	0	0	0	0	0	1	0	0	1	7
08	1	2	2	0	0	2	2	2	0	0	1	0	0	0	0	0	12
09	1	2	0	0	0	1	0	2	0	0	0	0	0	0	2	0	8
10	1	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	7
11	1	2	0	0	0	0	1	0	1	1	0	2	0	0	2	2	12
12	1	0	1	2	0	1	0	0	0	0	0	0	0	0	0	1	6
13	0	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	11
14	0	1	1	0	0	1	1	1	0	0	0	1	0	1	0	1	8
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	2	0	1	1	2	2	1	2	1	1	2	1	2	0	1	2	21
17	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	4
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	2	1	0	1	0	0	1	0	1	0	2	1	2	1	12
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
22	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
23	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	4
24	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3
25	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
26	1	2	0	1	2	1	1	2	2	0	0	2	0	1	0	1	16
27	1	1	1	0	0	1	1	0	1	1	0	1	1	0	2	1	12
28	0	0	0	0	0	0	2	2	0	1	1	0	0	0	1	1	8
29	1	0	0	2	0	1	1	2	2	1	0	1	1	2	1	1	16
30	2	2	0	0	0	1	0	0	0	0	2	1	0	0	0	0	8

CONTROL GROUP POST TEST

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
01	0	0	1	1	0	2	1	0	1	1	0	0	0	0	1	0	8
02	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	3
06	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3
07	1	2	1	0	2	0	0	0	1	0	0	0	0	0	0	2	9
08	0	2	1	1	0	2	2	2	0	2	1	2	2	1	2	0	20
09	1	2	1	2	2	1	0	0	2	1	0	1	2	0	2	1	18
10	1	2	1	1	1	0	2	1	2	1	2	0	0	1	0	2	17
11	0	1	0	0	0	1	1	0	1	1	0	2	0	0	0	1	8
12	2	1	1	2	1	2	2	0	1	1	0	1	0	0	1	2	17
13	1	1	2	2	1	2	1	2	1	1	2	1	1	0	1	2	21
14	2	1	2	1	0	1	1	2	1	1	0	0	0	1	1	2	16
15	0	1	2	0	1	1	0	1	2	1	0	1	0	1	2	1	14
16	2	1	0	1	0	1	2	1	0	1	1	0	0	0	1	1	12
17	0	1	1	2	0	2	1	0	1	2	0	0	0	0	1	2	13

18	1	2	2	1	2	1	2	1	2	1	1	0	1	1	0	1	19
19	1	0	1	2	1	2	2	1	1	1	2	1	0	1	1	2	19
20	1	0	1	2	0	2	1	0	2	1	2	0	0	0	1	0	13
21	1	0	1	2	1	2	1	1	0	1	0	1	2	1	0	1	15
22	1	2	1	2	1	0	1	1	2	1	1	1	0	0	0	2	16
23	1	0	1	0	1	2	1	0	2	1	1	0	1	1	0	2	14
24	0	0	0	1	0	1	0	0	1	1	0	0	1	0	1	1	7
25	1	0	1	0	1	2	2	2	2	2	0	0	0	0	2	2	17
26	1	2	1	2	2	1	1	2	1	1	2	0	1	0	0	2	19
27	1	2	1	2	1	0	1	2	0	1	2	1	1	2	1	0	18
28	1	2	1	0	2	1	0	2	1	0	2	1	1	0	2	2	18
29	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3
30	0	1	1	2	0	1	2	0	1	2	1	0	1	0	1	2	15

EXPERIMENTAL GROUP

Sl.NO	SUBJECT NAMES	SIGNATURE
1.	Narayanaswamy V	
2.	Nethravathi	
3.	Amrutha S V	
4.	Nagaraj TS	
5.	Rajaraman V	
6	S Harish Kumar	
7.	Swetha L	
8.	Pavithra N	
9.	Arul Prasad C	
10.	Pooja	
11.	Lavanya	
12.	Shruthi	
13.	Sunil GN	
14.	Rakshasree S	
15.	Beeresh CN	
16.	Swathi	
17.	Harisha A	
18.	Sarasawathi C	
19.	VR Joshi	
20.	Bindhu A	
21.	Muhammed Suhaib N	
22.	Sushma	
23.	Mamatha AR	
24.	Narayanappa V	
25..	Manikanta V	
26.	Vishwanath ST	
27.	Chandrashekhar K	
28.	Manjula TA	
29.	Umadevi MH	
30.	Sajjad Ali	

CONTROL GROUP

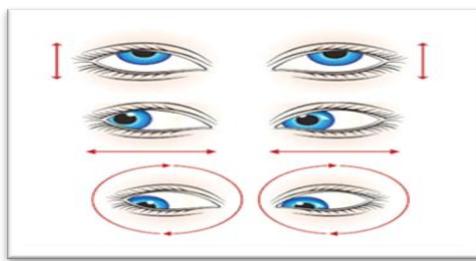| Sl.NO	SUBJECTS NAMES	SIGNATURE
1.	Poornima S	
2.	Nagarathnamma	
3.	Swarna	
4.	Nandhini Kumari P	
5.	R Sivaranjini	
6.	R Savitha	
7.	Jyothi V	
8.	S Arun kumar	
9.	KV Divakara	
10.	Prasad MS	
11.	DT Muniraja	
12.	Sridhar N	
13.	Preksha R	
14.	Rajanna C	
15.	Harisha Singh	
16.	Krishnamurthi R	
17.	Shashikumar R	
18	Nethra M	
19.	Monika	
20.	Soumya NM	
21.	Nandhini V	
22.	Rajendra Kumar	
23.	Vanitha MB	
24.	Arathi	
25.	Bhagyalakshmi	
26.	Yashwanth B	
27.	Maruthi V	
28.	Ganesha KV	
29.	TV Varalakshmamma	
30.	Ramesh Kala	

EYE EXERCISES	DESCRIPTION
Eye Blinking Tightly	• Close your eyes tightly for 3 seconds • Open your eyes and again repeat the same for 20 times
Eye Blinking Lightly	• Close your eyes lightly for 3 seconds • Open your eyes and again repeat the same for 20 times
Figure of Eight	• Fix your eye on a point that is 10 feet away. • Try to trace on imaginary eight along this point. • Repeat it for 30 seconds and change the direction afterwards
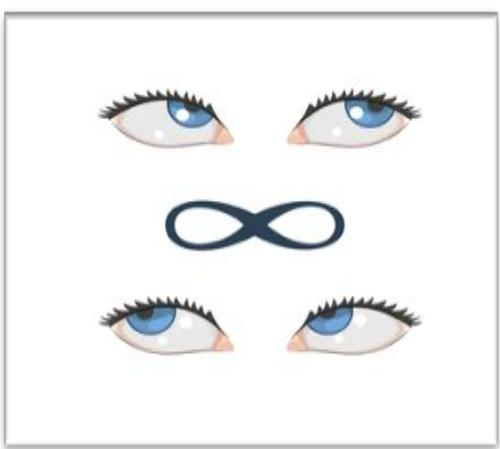
Pencil push-ups	• Hold a pencil at arm's length ,situated between the eyes. • Look at the pencil and try to keep a single image of it while slowly moving it toward the nose. • Move the pencil toward the nose until the pencil is no longer a single image. • Position the pencil at closest point where it is still a single image. • Repeat 20 times.
Eye Movements (Clockwise And Anti-Clockwise)	• Rotate your eyeballs 3 times to the right. • Rotate the eyeballs 3 times to left. • Repeat for 20 times.
Closing and Relaxation of Eyes.	• Close your eyes and rub your palms for 10-30 seconds. • Apply gentle pressure for 30 seconds to 1 minutes. • Repeat it 20 times.

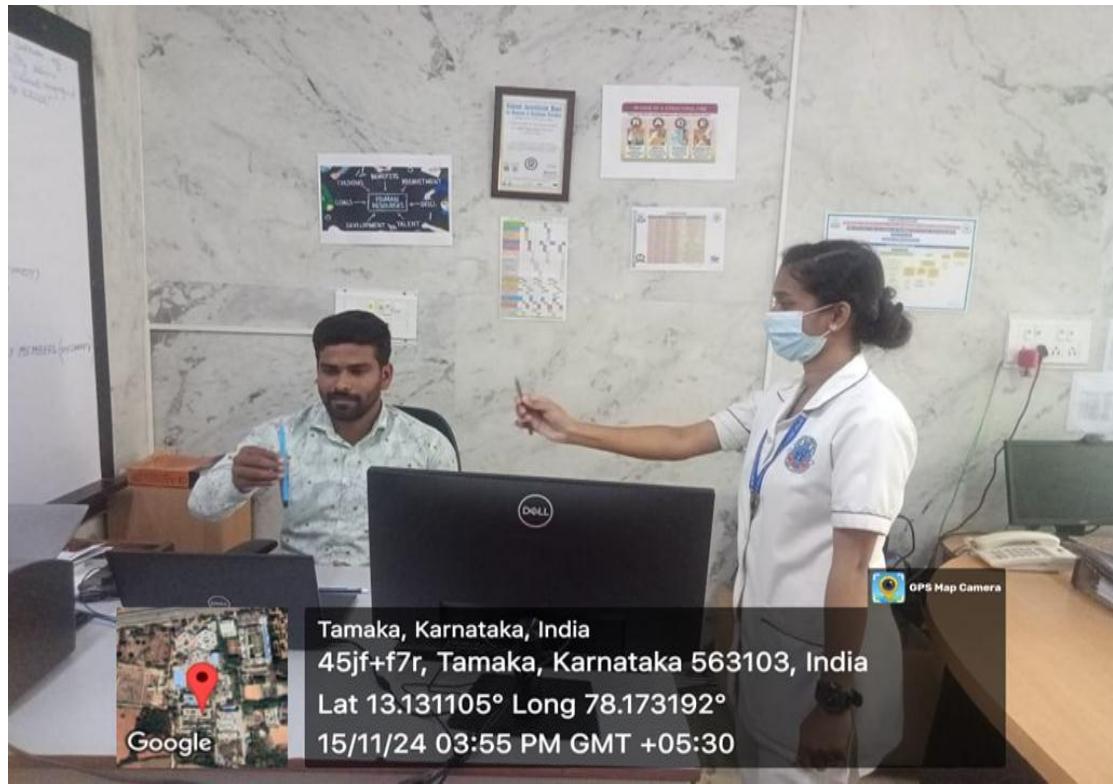|	
Splashing of Water on Eyes. 	• Take the cold water in a bowl. • Close the eyes and Splash water on the eyes. • Repeat the same for 5 times.

ANNEXURE -X

GLIMPSE OF EXPERIMENTAL GROUP

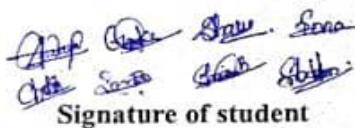Tamaka, Karnataka, India
45jf+f7r, Tamaka, Karnataka 563103, India
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21/11/24 11:42 AM GMT +05:30

Tamaka, Karnataka, India
45jf+f7r, Tamaka, Karnataka 563103, India
Lat 13.131381° Long 78.17334°
25/11/24 11:11 AM GMT +05:30

Tamaka, Karnataka, India
45jf+f7r, Tamaka, Karnataka 563103, India
Lat 13.131105° Long 78.173192°
15/11/24 03:55 PM GMT +05:30

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Tamaka, Kolar 563103

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Name of the Student	Ms. Aiswarya Raju, Ms. Chithra A, Ms. Gangothri KS, Ms. Sandra Sabu, Ms. Sharu Elsa Manoj, Ms. Sherin B Varghese, Ms. Sona Biju, Ms. Sreelakshmi S
Registration Number	21C3866,21C3900,21C3907,21C3941, 21C3942,21C3943,21C3947,21C3948
Name of the Supervisor/ Guide	Dr. G. Vijayalakshmi
Department	Medical Surgical Nursing
Acceptable Maximum Limit (%) of Similarity (UG Project)	10%
Similarity	2%
Software used	Turnitin
Paper ID	2647791898
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