PREVALENCE OF COMPUTER VISION SYNDROME AMONG HIGHER SECONDARY LEVEL STUDENTS IN MECHINAGAR-6, KAKARVITTA, JHAPA, NEPAL.

Higher Secondary Level School of Kakarvitta, Mechi Nagar-6, Jhapa, Province 1.

Submitted to

National Health Research Centre (NHRC)

Kathmandu

Submitted By

Mechi Netralaya And Ophthalmic Research Center

Kakarvitta, Jhapa

2022

Abstracts

World-wide trend of life style is shifting towards the use digital devices. Students nowadays spend significant time on computer and smart phone for knowledge, entertainment and communication purposes. This tendency of excessive use of digital devices can cause ocular and visual problem commonly known as computer vision syndrome. Individuals with this problem present with symptoms like headache, neck pain, shoulder pain, backache, eyestrain, sore eyes, redness, watering, burning sensation, and blurred vision which can decrease work efficiency and occupational productivity. This study focuses on the study of prevalence of CVS among higher secondary level students associating with different variable of use of laptop, desktop and smart phone. The research is designed for quantitative, descriptive and cross-sectional study in higher secondary level students of Kakarvitta-6, Jhapa, a far eastern city of Nepal. The sample size of the study is 310. Self-administered technique is deployed for the collection of data. The study found 84.5 percent of the student have CVS with 64.8 percent student spending more than an hour on-screen on the laptop, desktop and smart phone. CVS distribution and average on screen time on electronic device shows significant association. Resulting that student have more than an hour on-screen in electronic device have more like to have CVS.

Acronyms

CVS   Computer Vision Syndrome

NHRC   Nepal Health Research Council

Table of Contents

1 Introduction

1.1 Background

In this modern era of advancing digital technology, devices like computers and smart phones have become an integral part of everyone´s life, including students'. Shifting trend towards the use of soft copies has markedly increased the use of digital screen. Students nowadays spend significant amount of time on digital devices for knowledge, entertainment and communication purposes. This tendency of excessive use of digital devices can cause ocular and visual problem which commonly referred to computer vision syndrome. Individuals with this problem present with symptoms like headache, neck pain, shoulder pain, backache, eyestrain, sore eyes, redness, watering, burning sensation, and blurred vision which can decrease work efficiency and occupational productivity. Different factors like prolonged computer use, inappropriate working distance, excessive glare on the screen, poor illumination at work place and abnormal head posture can lead to occurrence of various symptoms associated with computer vision syndrome.

Easy accessibility of internet even in developing countries like Nepal is one of the reasons behind growing number of computer vision syndrome worldwide. This study reviews the prevalence and principal causes of computer vision syndrome among higher secondary level students in Eastern Nepal. It also aims to create awareness regarding health hazards of computer vision syndrome and thus enhance visual comfort and efficiency during computer operation.

In present days, computers and smart phones play a vital role in every individual's day to day life. One of the studies done in South India reported that 75% of all the daily activities involve the use of computers.[1]

Over use of internet services owing to technology advancement and increased accessibility of smart phones, internet addiction among Nepalese certificate level health science students was seen to be 38.1%.[2]

The collection of ocular and visual problems associated with prolonged use of computers and other digitals devices is generally referred, as computer vision syndrome. The three major pathophysiological mechanisms of computer vision syndrome are extra ocular mechanism, accommodative mechanism and ocular surface mechanism. Brightness, resolution, glare and quality of digital display screen are some known factors that cause computer vision syndrome.

The common symptoms of computer vision syndrome are eyestrain, sore eyes, redness, watering, burning sensation, blurred vision, headache, shoulder pain, neck pain, backache.[3] It is known that symptoms of computer vision syndrome appear when eye demand of an user exceeds the ability of that eye to perform task.[4]

The objective of this study is to determine the prevalence of computer vision syndrome and to find out the association between patterns of digital devices usage with different symptoms of computer vision syndrome among higher secondary level students in Kakarvitta, Mechinagar -6, Jhapa, Nepal.

1.2　Objectives of the Study

1.2.1　General objective

To determine the prevalence of computer vision syndrome among higher secondary levels students.

1.2.2　Specific objectives

(i) To identify the symptoms of computer vision syndrome.
(ii) To determine the association of computer vision syndrome with pattern of digital devices use.
(iii) To determine the association between types of digital devices used with different symptoms of computer vision syndrome.
(iv) To find out the occurrence of computer vision syndrome with average onscreen time.

1.3　Statement of problem

In 2005, more than 2/3rd of computer users worldwide reported having visual problems and that there was still alarming increase in the number of people being affected.[4] Furthermore, in 2007, nearly 60 million people worldwide were suffering from computer vision syndrome and approximately a million new cases occurred every year.[5]

Computer vision syndrome can have a significant impact on quality of life and work productivity.[6] It is seen that computer vision syndrome occurs in those who spend more than 8 hours per day on digital devices.[7] However, a recent study conducted among undergraduate medical students suggested that computer vision syndrome can develop even with three hours use of digital screen.[8] More recently, one of the study conducted in Kathmandu had recorded that 71.6% of medical students suffered from computer vision syndrome.[8] Similarly, even higher rate of 89.9%-94.8% was seen in studies done by Reddy SC et al.[9] and Hassan et al.[10]

Common symptoms associated with computer vision syndrome are headache,[8,9,11] eye strain,[12,13] and tired eyes.[14] Ocular changes like accommodative infacility, fusional insufficiency and lag of accommodation can also be seen and their occurrence have been reported to be high as 92.1% among computer users.[11]

1.4　Rationale

Computer vision syndrome is a growing public issue and contributing significantly towards poor quality of life and productivity at work place. This has received less attention in Nepal. Only a handful of studies done so far in this regard suggest that this problem has been poorly addressed in our country. The objective of this study is to determine the prevalence of computer vision syndrome and to find out the association between patterns of digital devices usage with symptoms of computer vision syndrome among higher secondary level students of Kakarvitta, Nepal. It can act as a foundation study for future research in this field.

1.5   Study Variables

1.6   Dependent variable

A dependent variable set for the study is computer vision syndrome in students of Higher secondary level school of Kakarvitta, Mechi nagar-6, Jhapa, Province (1).

Independent variables:

(i) Electronic gadgets
(ii) Time duration
(iii)Level of digital screen
(iv)Posture of users

1.7   Limitation of the study

It is a cross-sectional study. The study involves only self-reported practices by the students and does not involve the examination on their practice while they are in actual working on digital device, screen level (up gaze, down gaze), posture of the students. The study does not involve preventive measures taken to reduce symptoms of computer vision syndrome.

1.8   Definitions of key terms

1.8.1   Computer Vision Syndrome

Computer vision syndrome is the combination of eye and vision problems associated with the use of computers and other digital devices.

1.8.2   Ocular surface symptoms

Symptoms like tearing, dryness, burning sensation and redness after prolonged use of digital devices without break.

1.8.3   Extra ocular symptoms

Symptoms like neck stiffness, neck pain, shoulder pain, headache, and backache after prolonged use of digital devices.

1.8.4   Digital devices

Electronic devices like computers (desktop and laptop) and smart phones used by students for different purpose.

2   Review of the related literature

In the previous studies reported that prevalence of computer vision syndrome ranges between 64% to 90% among computer users.[15-17] Most of the studies reported Headache and Eyestrain as major symptoms.[8,9] In most of the studies the assessment were made by a means of questionnaire in which individual indicated if they suffer the symptoms included. One studies reported symptoms of computer vision syndrome are more prevalent among male than female.[18] On the contrary another studies reported that the prevalence among females was more than   males.[19] The prevalence of symptoms of computer vision syndrome due to duration of usages of digital devices varied from three hours[8] to more than eight hours daily.[7] Most of the studies reported symptoms of computer vision syndrome develop with increasing duration of exposure to display screen, improper sitting posture, Illumination at work place, glare on the screen, working distance and angle.[3,8,9,18]

3 Methodology

3.1 Research Design

A cross-sectional descriptive questionnaire study was conducted among higher secondary level students of Kakarvitta, Mechinagar-6, Jhapa, Nepal. The main tool used for the study was semi structured questionnaires taken from the literature research on previous study.[9] Sample size was calculated by taking the prevalence of computer vision syndrome as 71.6%[8] with margin of error of 5% which give estimated sample size of 310. Exclusion criteria were secondary level students who were using medication that affect visual health like (anti tuberculosis treatment, steroids and immunosuppressant), diagnosed with underlying systemic disease like, Diabetes, Hypertension, having preexisting eye diseases. Post Refractive surgery students and those who do not give informed written consent. Students with symptoms of computer vision syndrome taken to a detailed ocular evaluation which include uncorrected visual acuity (by Snellen chart, at 6 meter distance, under room illumination), refraction (subjective and objective with retinoscope), Schirmer's test (Whatman filter paper), near point of convergence, near point of accommodation measurement (by royal air force ruler), accommodative facility (by accommodative flipper),vergence facility(by vergence facility prism), fundus examination(by indirect ophthalmoscope). Ethical approval was taken from Nepal Health Research council.

3.2 Study site and its justification

Study was be conducted among higher secondary level students of Kakarvitta, Mechinagar -6, Jhapa, Nepal. Geographically Mechinagar is located in the easternmost part of Nepal joining West Bengal state of India and inhabited people of multi religions, cultures, languages and different socio-economic status. There is one higher secondary level school in Mechinagar -6, Kakarvitta with sufficient numbers of students using digital devices. With this background it was easy to meet our sample size for the study.

3.3 Study population and sample

Higher secondary level students between age group of 16-20 years either male or female who used digital devices like desktop, laptop and smart phones were considered for the study. Sample size is 310 students which is calculated by taking prevalence of computer vision syndrome as 71.6% and margin of error 5%.

3.4 Number of participants and its justification

Three hundred ten students of age group 16-20 years either male or female. Most of the students are accessible with desktop, laptop and smart phones because of technology advancement. Most of the students are engaged with computers and smart phones for different purposes. Hence, the sample size for this study was achieved without difficulty.

3.5 Sampling Design

Students were selected based on simple random sampling.

3.6 Criteria for sample selection

3.6.1 Inclusion criteria

All the higher secondary level students within age group 16-20 years and who used computers and digital devices.

3.6.2 Exclusion criteria

Higher secondary level students who were using medication that affect visual health like (anti tuberculosis treatment, steroids and immunosuppressant), diagnosed with underlying systemic disease like, Diabetes, Hypertension, having preexisting eye diseases.

Post Refractive surgery students.

Those who do not give informed written consent.

3.7 Data collection tools

Structured questionnaire survey was conducted for the data collection form the students. Students with symptoms of computer vision syndrome were selected by simple random sampling method for detailed ocular evaluation.

3.7.1 Data analysis

Collected data from the semi-structured questionnaire were managed in MS excel as spreadsheet later the data is transferred to SPSS for descriptive analysis and t-Test.

4 Result and Discussion

4.1 General distribution of different parameters

4.1.1 Gender Distribution

The study was carried out in 310 students of a higher secondary school of Mechinagar-6, Kakarvitta, Jhapa, Nepal. The mean age of students was 17 years ±1.074 years and the range of ages were 16-20 years. Gender-wise distribution shows female dominance in our study.

Table 1. Gender-wise distribution of students

SN	Gender	Frequency	Percent
1	Female	180	58.1
2	Male	130	41.9
	Total	310	100

4.1.2 Device user distribution

Types of digital devices used by the students in the study were smart phones, laptop and desktop. Smart phone was most commonly (93.2%) used digital devices.

Table 2. Use of Electronic Device by Higher Secondary Students

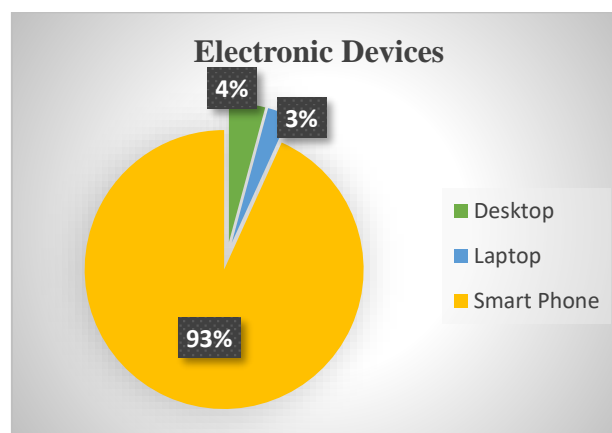| SN	Device	Frequency	Percent
1	Desktop	13	4.2
2	Laptop	8	2.6
3	Smart Phone	289	93.2
	Total	310	100

Figure 1. Type of Electronic device used by Higher Secondary Students

4.1.3 Average hours spent on digital devices daily

Average hours spend on digital devices daily was illustrate in the table number 3. Approximately $1/3^{rd}$ of the students in our study used more than 5 hours per day.

Table 3. Average hours spent on digital devices daily

Hours Per Day	No of Students	Percentage
≤1 hour/day	26	8%
1-2 hours	26	8%
2-3 hours	34	11%
3-4 hours	58	19%
4-5 hours	55	18%
>5 hours	111	36%
Total	310	100%

4.1.4 Association of digital device usage with symptoms of Computer Vision Syndrome

Students using laptop or desktop continuously less than one hour per day were likely to experience no symptoms of computer vision syndrome (P=0.000). Similarly, there was no significant association between duration of use of smart phone and symptoms of CVS. There was a significant association between continuous screen users over one hour and presence of CVS symptoms in students using desktop and laptop only.

Table 4. Association of digital devices with symptoms of Computer Vision Syndrome

Variable	Group	No of Students	CVS symptoms present	P-Value
Laptop time	≤ 60 mins	2	0	0.000
	> 60 mins	6	6	0.023
Desktop time	≤ 60 mins	5	5	0.020
	> 60 mins	8	5	0.020
Smart Phone time	≤ 60 mins	102	81	0.316
	>60 mins	187	159	0.621

4.1.5 Association of pattern of digital devices usage with symptoms of Computer Vision Syndrome.

Association of pattern of digital devices usage with symptoms of CVS is illustrated in table number 5. The result shows posture and level during the use of digital devices were not significantly associated with symptoms of CVS.

Table 5. Association of pattern of digital devices usage with symptoms of Computer Vision Syndrome.

Variable	Group	Number of students	Number of symptoms observed	Number of students with CVS symptoms	P-value
Posture	Mostly Sitting	59	10	54	0.169
	Mostly Lying	53	9	50	0.153
	Both	198	10	162	0.169
Level of Digital Device	Above eye level	29	7	18	0.119
	Below eye level	115	11	99	0.186
	At eye level	166	12	144	0.206

4.1.6 Computer Vision Syndrome

Study shows, 84.5 percent of higher secondary student have computer vision syndrome (CVS).

Table 6. Frequency of CVS

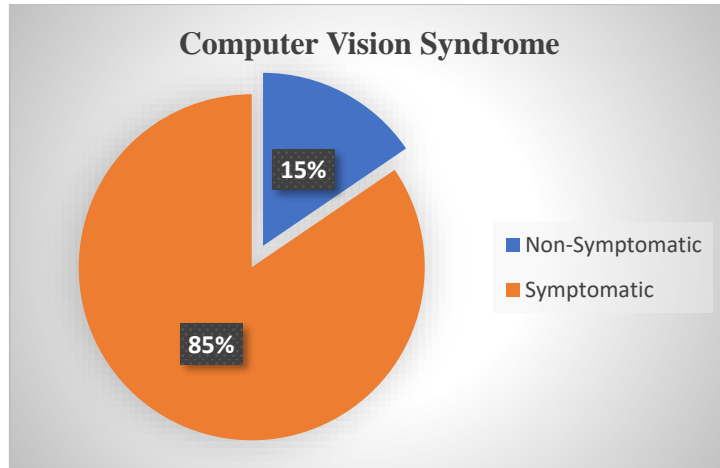| SN	Time Spend	Frequency	Percent
1	Non-Symptomatic	48	15.5
2	Symptomatic	262	84.5
	Total	310	100

Figure 2. Computer vision Syndrome

Among 84.5 percent of student having CVS, headache and watering (18.3%) were most common symptoms in our study.

Table 7. Symptoms associated with CVS

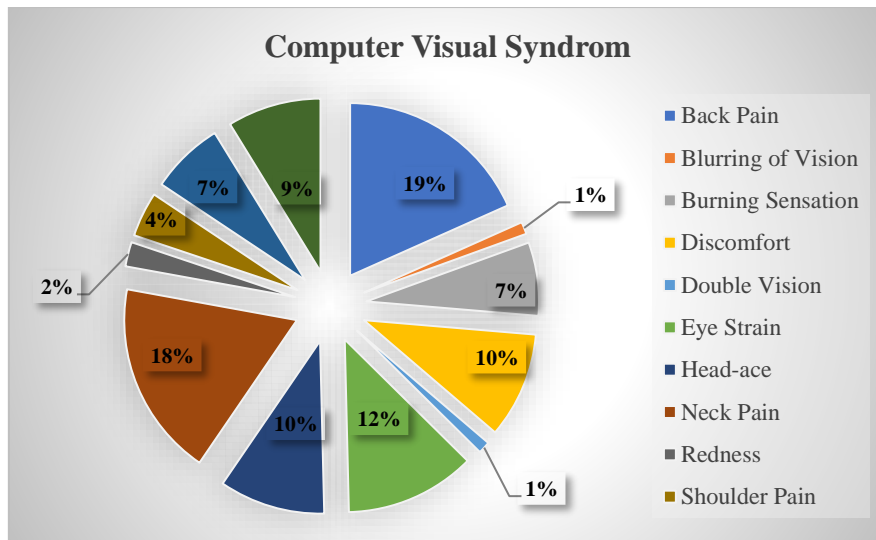| SN	Prevalence of CVS	Frequency	Percent
1	Back Pain	3	1.1
2	Blurring of Vision	18	6.9
3	Burning Sensation	26	9.9
4	Discomfort	3	1.1
5	Double Vision	32	12.2
6	Eye Strain	26	9.9
7	Headache	48	18.3
8	Neck Pain	6	2.3
9	Redness	11	4.2
10	Shoulder Pain	18	6.9
11	Tiredness	23	8.8
12	Watering	48	18.3
	Total	262	

Figure 3. Different types of Computer Vision Syndrome

4.1.7 Associated Ocular Morbidity among evaluated students.

Total 100 students were selected for detailed ocular examination by simple random sampling method to assess the presence of CVS related ocular morbidity. The mean age of students was 17.28 years ±0.95 years and range were 16-20 years. Among 17 ametropic students 7 students were already using their spectacles and 3 students were advised to change their glasses. The range of their Refractive power between -0.25D to -1. 25D.Majority of students (46%) were facing orthoptic problem and accommodative insufficiency (41.30%) was common orthoptic problem. All students with orthoptic problem were advised to follow orthoptic exercises. The second commonest ocular finding were dry eyes (25%) and students were advised to use lubricant eye drops to keep eyes moist and to blink frequently. Ocular Non-Abnormality was detected in (12%) of students.

Table 8. Associated Ocular Morbidity among evaluated students

Ocular Findings	Frequency	Percentage
Refractive errors	17	17%
Dry eyes	25	25%
Orthoptic problems	46	46%
Non abnormality detected	12	12%
Total	100	100%

Discussion

The prevalence of computer vision syndrome ranges between 64% to 90% among computer users.[15-17]

Our study reveals the prevalence of computer vision syndrome to be 84.5%. However, high prevalence of CVS (94.8%) was reported among medical students of Pakistan.[10] Most common symptoms in our study were headache (18.3%) and watering (18.3%).

There is direct relation with the number of hours spent on the computer and increased risk of CVS.[20]Symptoms of CVS have been reported among users using digital devices varied from three hours to more than eight hours daily.[9]In our study symptoms of computer vision syndrome were more in users using more than one hour continuously on laptop and desktop and had significant association (P-0.023) with symptoms of CVS. Similarly, symptoms of CVS have been reported among medical students of Nepal using digital devices continuously more than two hour per day.[8]

Level of digital screen and body posture have significant role to manifest symptoms of CVS. Higher proportion of users report asthenopia problem after using digital screen at and above the eye level.[20]However there is reducing problems like visual discomfort and musculoskeletal discomfort in users using below eye level.[21] Our study showed statically not significant association (P=0.186) between below eye level and symptoms of CVS. There was no significant association between pattern of digital devices usage with symptoms of CVS. Majority of students were smart phones users and were younger as compare with other study.[8]Medical students were more devotee in digital devices rather than higher secondary level students. This might be probable reasons for not supporting the association of pattern of digital devices uses with symptoms of CVS.

Our study explores risk factors associated with CVS. However, there are certain limitation of our study. It is a cross-sectional study. The study involves only self-reported practices by the students and does not involve the examination on their practice while they are in actual working on digital device, screen level (up gaze, down gaze), posture of the students. The study does not involve preventive measures taken to reduce symptoms of computer vision syndrome.

The students with computer vision syndrome are suggested to follow 20/20/20 rule to reduce symptoms of CVS. It states that after 20 minutes of computer works, one should look at something 20 feet away for 20 second.

5.Conclusion

Computer vision syndrome is a common problem among students using digital devices including smart phones. These symptoms are predominantly seen in those who using any digital screen more than one hour continuously daily.

Recommendation

This study concludes that symptoms of CVS are common among higher secondary students. Most of the students are unknown about its health hazards. It is essential to create awareness of problems of CVS and its preventive measures among students and public through awareness program at community. Periodic eye examination should be arranged to avoid complications.

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Annex

Annex 1

Ref. No.: 2976

Date: 29 April 2021

Mr. Chandra Narayan Rajbanshi

Principal Investigator,

Mechi Netralaya and Ophthalmic Research Centre, Pvt, Ltd

Jhapa, Nepal

Ref: Approval of research proposal

Dear Mr. Rajbanshi,

This is to certify that the following protocol and related documents have been reviewed and granted approval by the Expedited Review Sub-Committee for implementation.

ERB Protocol Registration No.	246/2021 P	Sponsor Protocol No	NA
Principal Investigator/s	Mr. Chandra Narayan Rajbanshi	Sponsor Institution	NA
Title	Prevalence of computer vision syndrome among higher secondary level students in Mechinagar-6, Kakarvitta, Nepal		
Protocol Version No	NA	Version Date	NA
Other Documents	1. Data collection tools 2. Acceptance letter from the study site 3. Assent form	Risk Category	Minimal risk
Study Team Member	1. Dr. Ritesh Kumar Shah		
Expedited Review	Proposal ☑	Duration of Approval 29 April 2021 to 29 April 2022	Frequency of continuing review
	Amendment ☐		
	Re-submitted ☐		
	Meeting Date: 27 April 2021		
Total budget of research	NRs 1,50,000.00		
Ethical review processing fee	NRs 5,000.00		

Ref. No.: 2976

Investigator Responsibilities :

- Any amendments shall be approved from the ERB before implementing them
- Submit progress report every 3 months
- Submit final report after completion of protocol procedures at the study site
- Report protocol deviation / violation within 7 days
- Comply with all relevant international and NHRC guidelines
- Abide by the principles of Good Clinical Practice and ethical conduct of the research

If you have any questions, please contact the Ethical Review M & E Section at NHRC.

Thanking you,

Dr. Pradip Gyanwali
Member-Secretary
(Executive Chief)

Ref. No.: 3032

17 May 2022

Mr. Chandra Narayan Rajbanshi

Principal Investigator

Mechi Netralaya and Ophthalmic Research Centre, Pvt. Ltd

Jhapa, Nepal

Subject: **Approval of the requested amendment** for the study entitled **Prevalence of computer vision syndrome among higher secondary level students in Mechinagar-6, Kakarvitta, Nepal (Reg. no. 246/2021, Approved on 27 April 2021)**

Dear Mr. Rajbanshi,

The meeting of the Expedited Review Sub-Committee of Nepal Health Research Council held on 12 May 2022 discussed the amendment requested on 26 April 2022. The meeting has approved the amendment for the extension of timeline till July 2022 as data analysis could not be completed on approved time.

If you have any queries, please feel free to contact the Ethical Review M & E Section of NHRC.

Thanking you!

Dr. Pradip Gyanwali

Member Secretary

Annex 2

काँकरभिट्टा माध्यमिक विद्यालय
मेचीनगर-५ काँकरभिट्टा, झापा
स्था ः २००४

प.सं. ३१२
च.नं. २०६८।८८८

मिति : २०७७/१२/२१
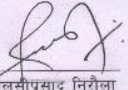
श्रीमान् प्रमुख ज्यू,
मेची नेत्रालय आँखा अस्पताल, काँकरभिट्टा

विषय : सहमती दिइएको बारे ।

महोदय,

प्रस्तुत विषयमा त्यस अस्पतालबाट यस विद्यालयमा अध्ययनरत विद्यार्थीहरुको Computer vision Syndrom सम्बन्धि निशुल्क स्वास्थ्य परीक्षण गर्न अनुमति पाउ भनी मिति २०७६/१२/१० मा प्राप्त पत्र बमोजिम उक्त प्रस्तावित कार्य गर्न अनुमति दिइएको ब्यहोरा अनुरोध छ ।

तुलसीप्रसाद निरौला
प्रधानाध्यापक
काँकरभिट्टा माध्यमिक विद्यालय
मेचीनगर-५ काँकरभिट्टा

सहमती पत्र

यो पत्र ध्यान दिएर पढिदिनुहोला र यो अध्ययनमा भाग लिनु अघि केही जिज्ञासाहरु छन् भने सोध्न सक्नु हुने छ ।

Research title

Prevalence of computer vision syndrome among higher secondary level students in Mechinagar-6, Kakarvitta, Jhapa, Nepal.

उदेश्य र विधि

उदेश्य :

यस अध्ययनको मुख्य उदेश्य मेचीनगर-६ काकरभिट्टाका उच्चमाध्यमिक विद्यार्थीहरुमा (जसले कम्प्यूटर, ल्यापटप र मोवाइलको प्रयोग गर्छ) computer vision syndrome लक्षणहरुको प्रचारबारे पत्ता लगाउनु हो ।

विधि

यदि तपाई यस अध्ययन अनुसन्धानमा राजी हुनुहुन्छ भने तपाईहरुलाई २१ वटा प्रश्नहरु सोधिने छन् । जसका लागि १०-१५ मिनेटको समय लाग्नेछ । तपाईहरुले सबै प्रश्नहरुको उत्तर छनोट गरेर लेख्नु पर्ने छ ।

जोखिम

यस अनुसन्धानमा अनुसन्धानकर्ता द्वारा विद्यार्थीहरुलाई कुनै प्रकारको हानी नहुने पूर्वनुमान गर्दछौं ।

फाइदा

यस अनुसन्धानमा मेचीनगर-६ काकरभिट्टामा रहेको उच्च माध्यमिक विद्यालयका विद्यार्थीहरुमा computer vision syndrome सम्बन्धी हुने आँखाका समस्याहरुको जागरुकता गराउँछ ।

भूक्तानी .

यस अनुसन्धानमा सहभागी हुन चाहने विद्यार्थीहरुबाट कुनै पनि प्रकारको शुल्क लिइने छैन ।

गोप्यता

यस अध्ययनमा हुने सम्पूर्ण रेकर्डहरु गोप्य रहनेछ । यदि कुनै रिपोट सार्वजनिक गर्नु परेको खण्डमा तपाईलाई पहिचान गर्ने जानकारी समावेस हुने छैन ।

स्वच्छिक सहभागीता

यस अध्ययनमा सहभागी हुन चाहनुहुने विद्यार्थीलाई मात्र दिइनेछ । यदि अध्ययनको बिचमा आफू संलग्न हुन नचाहेमा कुनै वेला पनि कारण नदिइकन निस्कनु सक्नु हुने छ ।

तथ्याङ्क को प्रयोग

यस अनुसन्धानको तथ्याङ्कहरुले यस computer vision syndrome विषयमा थप अनुसन्धान गर्न सहयोग गर्दछ ।

यदि तपाईहरुमा कुनै प्रश्नहरु छ भने यस अनुसन्धानको अनुसन्धानकर्ता श्री चन्द्र नारायण राजवंशी सँग सोध्न सक्नुहुने छ ।

मोवाइल नं. :

ईमेल : chandra.optm28@gmail.com

सहमती पत्रको बयान

मैले माथी दिइएको जानकारीहरु राम्रो संग पठेको छु । म यस अनुसन्धानमा भाग लिन सहमत छु ।

तपाईको हस्ताक्षर ....

तपाइको नाम .... मिति...........................

Annex 4

सहमती पत्र

यस मेची नेत्रालय तथा अफ्थाल्मिक रिर्सच सेन्टरले Computer Vision Syndrome सम्बन्धि अध्ययन गर्न तपाईको नानीबाबुलाई संलग्न गर्न अनुमति लिन चाहान्छौ । यो अनुसन्धान नेपाल स्वास्थ्य अनुसन्धान परिषदबाट स्वीकृत भएको र यस अनुसन्धानमा तपाईको नानीबाबुलाई समावेश गराइने जानकारी गराँउदछौ । यस अध्ययनमा कुनैपनि आपत्ति जनक प्रश्नहरु समाविष्ट गरिएको छैन । जब यो अध्ययन प्रकाशित गरिने छ तब तपाईको र नानीबाबुको नाम उल्लेख गरिने छैन । क्लिनिकल रेकर्ड अनुसन्धन रेकर्ड र अन्य तथ्याइको गोपिनियता कायम गरिनेछ ।

यस अनुसन्धानमा सहभागी हुनका लागि तपाईबाट कुनै प्रकारको शुल्क या सुविधा लिइने छैन । यदि अध्ययनको बीचमा आफू संलग्न हुन नचाहेमा तपाई वा तपाईको नानीबाबु माथि कुनै प्रकारको अवरोध/दबाव दिइने छैन । यदि कुनै किसिमको जिज्ञासा अथवा केहि सोध्न मन भए सोध्न पाउनु हुनेछ ।

तसर्थ यस अध्ययनमा तपाईको नानीबाबुहरुलाई सामेल गराउन तपाईको सहमतिको अपेक्षा गर्दछौं ।

तपाईको सहयोग प्रति यस मेची नेत्रालय आभार प्रकट गर्दछौ ।

सहमती प्रदान गर्ने

सहभागी अभिभावकको नाम :   सहभागी बालकको नाम :

हस्ताक्षर :   उमेर :

ठेगाना :