

# A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO TEACHING ON KNOWLEDGE REGARDING HEALTH HAZARDS OF ELECTRONIC DEVICES AMONG NURSING STUDENTS IN SELECTED NURSING COLLEGES OF MEHSANA DISTRICT (GUJARAT)

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## ABSTRACT

**Introduction :** Desktops, laptops, tablets, eBook readers, printers, projectors, smart boards, smart TVs, cellphones, cordless phones and wireless networks (WiFi) have become ubiquitous in schools. At their best, they are powerful tools for education. At their worst, they threaten the physical and mental health of teachers, paraeducators, secretaries, librarians and other school staff members and students who spend numerous hours using the devices.

**Material & Methods :** Pre experimental research design was used in present study with 100 nursing students in selected Nursing colleges of Mehsana District Gujarat. Non probability purposive sampling technique was used 30 self structured knowledge questioner were used to assess knowledge of nursing students regarding health hazards of electronic devices

**Results :** according to the demographic variables, age most of the nursing students are from 67%, 25% are form 18-20 years and 4% are 24-26 year and more than 26 years in age. Out of 100 nursing students most of them 59% are female 41% are male. the pretest, 71% the adolescence had inadequate knowledge 20% had moderate knowledge and 9% had adequate knowledge regarding the health hazards of electronic devices. In the posttest 67% of the adolescence had adequate knowledge, 31% had moderate knowledge and only 2% had inadequate knowledge regarding health hazards of electronic devices.

**Conclusion :** The pre test mean score with standard deviation was  $14.23 \pm 4.30$  and the post-test score was  $21.96 \pm 4.05$ . The mean difference was high and statistically significant that is the video teaching on knowledge regarding health hazards of electronic devices among nursing students was effective.

**Keywords :** Knowledge, Health Hazards, Electronic Devices

## INTRODUCTION

Electronic devices are an integral part of adolescence's life in the twenty- first century. The world of electronic devices however is changing dramatically. Television, which dominated the world's media in the mid-1990's, is now competing in a wide range of cell phones, computers, iPods, video games, instant messaging, multi-player video games, virtual reality sites, Websites and email.

Nowadays, technology is being used all over the world. The electronic device was one of the most important tools to help a person move on with his or her daily life. Almost every house in the world has technology. There are many advantages and disadvantages to using

electronic devices. Electronic devices can simplify one's daily activities but still have a negative impact on people's health.

## MATERIAL & METHODS

Pre experimental research design was used in present study with 100 nursing students in selected Nursing colleges of Mehsana District Gujarat. Non probability purposive sampling technique was used 30 self structured knowledge questioner were used to assess knowledge of nursing students regarding health hazards of electronic devices.

## RESULTS

### Section - A Distribution of the Samples According to Demographic Variables

**Table - 1 Percentage Distribution of Samples According to Demographic Variables N= 100**

| S. No.   | Demographic variable                              | Frequency | Percentage |
|----------|---------------------------------------------------|-----------|------------|
| <b>1</b> | <b>Age (In Years)</b>                             |           |            |
|          | a) 18-20                                          | 25        | 25%        |
|          | b) 21-23                                          | 67        | 67%        |
|          | c) 24-26                                          | 4         | 4%         |
|          | d) More than 26                                   | 4         | 4%         |
|          | Total                                             | 100       | 100%       |
| <b>2</b> | <b>Gender</b>                                     |           |            |
|          | a) Male                                           | 41        | 41%        |
|          | b) Female                                         | 59        | 59%        |
|          | c) Transgender                                    | 00        | 00         |
|          | Total                                             | 100       | 100%       |
| <b>3</b> | <b>Monthly family Income</b>                      |           |            |
|          | a) Equal or less than 10000/-                     | 07        | 07%        |
|          | b) 10001-20000/-                                  | 29        | 29%        |
|          | c) 20001-30000/-                                  | 52        | 52%        |
|          | d) More than 30001/-                              | 12        | 12%        |
|          | Total                                             | 100       | 100%       |
| <b>4</b> | <b>Nursing education programme</b>                |           |            |
|          | a) G.N.M.                                         | 41        | 41%        |
|          | b) B.Sc. Nursing                                  | 59        | 59%        |
|          | Total                                             | 100       | 100%       |
| <b>5</b> | <b>Year of study</b>                              |           |            |
|          | a) 1st year                                       | 50        | 50%        |
|          | b) 2nd year                                       | 50        | 50%        |
|          | Total                                             | 100       | 100%       |
| <b>6</b> | <b>Area of residency</b>                          |           |            |
|          | a) Rural                                          | 67        | 67%        |
|          | b) Urban                                          | 33        | 33%        |
|          | Total                                             | 100       | 100%       |
| <b>7</b> | <b>Awareness of hazards of electronic devices</b> |           |            |
|          | a) Yes                                            | 33        | 33%        |

| S. No.    | Demographic variable                   | Frequency | Percentage |
|-----------|----------------------------------------|-----------|------------|
|           | b) No                                  | 67        | 67%        |
|           | Total                                  | 100       | 100%       |
| <b>8</b>  | <b>Do You have Mobile phones</b>       |           |            |
|           | a) Yes                                 | 91        | 91%        |
|           | b) No                                  | 9         | 9%         |
|           | Total                                  | 100       | 100%       |
| <b>9</b>  | <b>Types of electronic devices use</b> |           |            |
|           | a) Only Mobile                         | 47        | 47%        |
|           | b) Only TV                             | 9         | 9%         |
|           | c) Only games                          | 17        | 17%        |
|           | d) All the above                       | 27        | 27%        |
|           | Total                                  | 100       | 100%       |
| <b>10</b> | <b>Daily uses of mobile phone</b>      |           |            |
|           | a) Less than 2 hours                   | 47        | 47%        |
|           | b) 2-4 hours                           | 27        | 27%        |
|           | c) 5-7 hours                           | 17        | 17%        |
|           | d) More than 8 hours                   | 9         | 9%         |
|           | Total                                  | 100       | 100%       |

The above table showed that study samples according to the demographic variables, age most of the nursing students are from 67%, 25% are from 18-20 years and 4% are 24-26 year and more than 26 years in age. Out of 100 nursing students most of them 59% are female 41% are male and on transgender sample we got. According to monthly family income most of 59% nursing students family income are between 20001-30000 per month, 29% are from 10001-20000/- , 12% are from more than 30001/- and only 7% are from equal or less than 10000/- According to nursing education programme most of them 59% are B.Sc. Nursing and 41% are GNM. Demographic variable year of study both are equal 50% from 1st year and 50% are 2nd year. According to their area of residency 67% are living in rural area and only 33% are living in urban area. Demographic variable according to awareness of hazards of electronic devices 67% are not having any awareness and only 33% had awareness. Most of the nursing students 91% having mobile phones and only 9% are not having mobile phone.

Demographic variable types of electronic devices use 47% are only mobile use, 27% are using all mobile, TV and games, 17% are playing with games and only 9% are using only TV. According to daily use of mobile phone 47% are less than 2 hours, 27% are 2-4 Hours, 17% are 5-7 hours and only 9% are more than 8 hours.

### Section: B - Assess the Level of Knowledge of Nursing students Regarding Health Hazards of Electronic Devices before video teaching

**Table No. 2: Assess the Frequency and Percentage Distribution of pre-test Level of Knowledge of nursing students regarding Health Hazards of Electronic Devices**

N = 100

| Level of Knowledge | Pre Test      |                |
|--------------------|---------------|----------------|
|                    | Frequency (f) | Percentage (%) |
| Inadequate (1-10)  | 71            | 71%            |
| Moderate (11-20)   | 20            | 20%            |
| Adequate (21-30)   | 09            | 9%             |
| <b>Total</b>       | <b>100</b>    | <b>100</b>     |

Above table shows that, the pretest, 71% the adolescence had inadequate knowledge 20% had moderate knowledge and 9% had adequate knowledge regarding the health hazards of electronic devices.

### Section: C - Assess the Level of Knowledge of Nursing Students Regarding Health Hazards of Electronic Devices after video teaching

**Table No. 3 : Assess the Frequency and Percentage Distribution of Post-test Level of Knowledge of Nursing Students Regarding Health Hazards of Electronic Devices**

N = 100

| Level of Knowledge | Post Test     |                |
|--------------------|---------------|----------------|
|                    | Frequency (f) | Percentage (%) |
| Inadequate (1-10%) | 02            | 2%             |
| Moderate (11-20%)  | 31            | 31%            |
| Adequate (21-30%)  | 67            | 67%            |
| <b>Total</b>       | <b>100</b>    | <b>100</b>     |

In the posttest 67% of the adolescence had adequate knowledge, 31% had moderate knowledge and only 2% had inadequate knowledge regarding health hazards of electronic devices.

### Section: D - Assess the Level of Knowledge of Nursing Students Regarding Health Hazards of Electronic Devices after video teaching

**Table No. 4 : Assess the Frequency and Percentage Distribution of pre-test & post test Level of Knowledge of Nursing students Regarding Health Hazards of Electronic Devices**

N = 100

| Level of Knowledge | Pre Test      |                | Pre Test      |                |
|--------------------|---------------|----------------|---------------|----------------|
|                    | Frequency (f) | Percentage (%) | Frequency (f) | Percentage (%) |
| Inadequate (1-10)  | 71            | 71%            | 2             | 2%             |
| Moderate (11-20)   | 20            | 20%            | 31            | 31%            |
| Adequate (21-30)   | 09            | 9%             | 67            | 67%            |
| <b>Total</b>       | <b>100</b>    | <b>100</b>     | <b>100</b>    | <b>100</b>     |

The Pretest mean score was 14.23 with standard deviation 4.30. The mean percentage score was 47.43. The Posttest mean score was 21.96 with standard deviation 4.05. The mean percentage score was 73.20.

**\*Significant** The above association between pre test knowledge score with selected demographic

variables out of that only age, monthly income and nursing education programme are associated with each other and rest of gender, area or living, year of education, use of mobile phone, different type of electronic device previous knowledge are not associated with pre test knowledge score.

### CONCLUSION

This study was conducted to assess the knowledge of nursing students regarding health hazards of electronic devices with a view to implement video assisted teaching programme. In this study pre experimental one group pre test and post test research design was used by taking 100 samples using Purposive Sampling Technique at the selected nursing colleges of Mehsana District (Gujarat)." Data was collected by using self prepared structured knowledge question. Data was analysed and interpreted by applying respective statistical methods. The conclusion of the study was drawn on the basis of major findings which are as follows: The data showed that study samples according to the demographic variables, age most of the nursing students are from 67%, 25% are form 18-20 years and 4% are 24-26 year and more than

26 years in age. Out of 100 nursing students most of them 59% are female 41% are male and on transgender sample we got. According to monthly family income most of 59% nursing students family income are between 20001-30000 per month, 29% are from 10001-20000/- , 12% are from more than 30001/- and only 7% are from equal or less than 10000/- According to nursing education programme most of them 59% are B.Sc. Nursing and 41% are GNM. Demographic variable year of study both are equal 50% from 1st year and 50% are 2nd year. According to their area of residency 67% are living in rural area and only 33% are living in urban area. Demographic variable according to awareness of hazards of electronic devices 67% are not having any awareness and only 33% had awareness. Most of the nursing students 91% having mobile phones and only 9% are not having mobile phone. Demographic variable types of electronic devices use 47% are only mobile use, 27% are using all mobile, TV and games, 17% are playing with games and only 9% are using only TV. According to daily use of mobile phone 47% are less than 2 hours, 27% are 2-4 Hours, 17% are 5-7 hours and only 9% are more than 8 hours The pre test mean score with standard deviation was  $14.23 \pm 4.30$  and the post-test score was  $21.96 \pm 4.05$ . The mean difference was high and statistically significant that is the video teaching on knowledge regarding health hazards of electronic devices among Nursing students was effective. The above association between pre test knowledge score with selected demographic variables out of that only age, monthly income and nursing education programme are associated with each other and rest of gender, area or living, year of education, use of mobile phone, and different type of electronic device previous knowledge are not associated with pre test knowledge score.

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