ABSTRACT

Introduction: Cyberbullying is a pervasive public health issue, affecting 10% to 50% of adolescents and resulting in significant negative health outcomes. Cyberbullying is when someone, typically a teenager, bullies or harasses others on the internet and other digital spaces, particularly on social media sites. Harmful bullying behavior can include posting rumors, threats, sexual remarks, a victim's personal information, or pejorative labels.

Aim: The present research study aimed to assess the knowledge on cyber bullying & its effect on mental health.

Materials and Methods: The data for the main study was collected from 150 adolescents. Adolescents were selected using convenient sampling technique. Self-structured questionnaire was used to assess the level of knowledge about cyberbullying. Descriptive and inferential statistics such as mean, standard deviation, chi-square, t-test were applied to analyzed the data.
Results: The pre-test Post-test score of Level of knowledge was compared using paired t-test (Independent t-test) revealed that \( t=29.679, \text{df}=149, p=0.05 \) the programme was effective to improve the level of knowledge on cyberbullying among adolescent. Chi square was use to assess the association of pre - test knowledge scores with selected demographical variable found non-significant for all the variables \( p=0.05 \).

Conclusion: Data collection done of the data collected from 150 adolescent’s students studying in 11th &12th standard adolescent's students descriptive and inferential statistics were used for analysis of the data and interpreted by the forms of tables and graphs.

Keywords: Cyberbullying; mental health; adolescents.

1. INTRODUCTION

Cyber bullying or cyber harassment is a form of bullying or harassment using electronic means. Cyber bullying and cyber harassment are also known as online bullying. It has become increasingly common, especially among teenagers, as the digital sphere has expanded and technology has advanced [1]. Cyberbullying is a pervasive public health issue, affecting 10% to 50% of adolescents and resulting in significant negative health outcomes. Due to the relative newness of cyber bullying, there are many elements of the phenomenon that are not understood [2].

Cyber bullying is associated with negative mental health outcomes including adolescent suicidal ideation. This requires effective and accessible preventive efforts. Healthy lifestyles are factors adolescents themselves can modify that may lower their risk of suicidal ideation [3]. The parental mediation has proved to be useful when preventing the addiction to internet and the involvement in cyber bullying, especially cyber-victimization [4].

Previous or current experiences of traditional bullying were associated with victims and perpetrators of cyber bullying. Daily use of three or more hours of Internet, web camera, text messages, posting personal information and harassing others online were associated with cyber bullying. Cyber victims and cyber bullies had more emotional and psychosomatic problems, social difficulties and did not feel safe and cared for in school. Cyber bullying was associated with moderate to severe depressive symptoms, substance use, ideation and suicide attempts. Health professionals should be aware of the violent nature of interactions occurring in the virtual environment and its harm to the mental health of adolescents [6].

2. MATERIALS AND METHODS

The data for main study was collected from 150 adolescents. Adolescents were selected using convenient sampling technique. Self-structured questionnaire was used to assess the knowledge of cyberbullying. Descriptive Statistics applied Mean, median, standard deviation, was used to describe Analyze the data. Paired sample t test was used to assess the effectiveness of awareness program on cyberbullying. Inferential Statistics applied Chi-square test was used to find association of the Pre-test cyber bullying knowledge score with selected demographic variables. Ethical approval for conducting the study was taken from Sumandeep Vidyapeeth Institutional ethics committee (SVIEC), Vadodara. Administrative approval and permission were taken from concern authorities of selected school, Chhotaudepur. The consent form was prepared for the study participant regarding their willingness to participate in the research study. The research tool for data collection it consists two sections:

2.1 Section 1: Demographic Data

This section includes socio demographic variables such as age, religion, school performance; type of family, monthly family income, residential area, parents’ occupation that influencing the knowledge on cyber bullying.

2.2 Section 2: Self Structured Questionnaire on Cyber Bullying Awareness

The Self structured questionnaire will be used to assess the awareness of cyber bullying of
11th and 12th standard students. This tool consists of 26 items that would help to assess the awareness of cyber bullying.

2.3 Intervention

The data for main study was collected from 150 adolescents’ students who are studying in 11th and 12th standard at the Shree Adarsh Secondary and Higher Secondary School, Morkhala of Chhotaudepur, Gujarat who fulfilled the inclusive criteria by convenient sampling technique and Self structured questionnaire was used to assess knowledge of cyber bullying. Consent was taken from the participants and pre-test was assessed using Self structured questionnaire followed by administration of awareness program of cyber bullying on the same day. Post-test was assessed 5 days after the pre-test using same structured questionnaire.

3. RESULTS

Table 1: - One hundred and fifty (150) adolescents were participated in the study for final analysis. Where, majority of adolescents 53.30% (n=80) were belongs to 18-20 years of age and 79.33% (n=119) were Hindu Religions. School Performance were good 51.33%(n=77). Nearly more than half percentage of participants were living in a joint family 64.66 (n=97). The 44.66% (n=67) participants had family income of rupees 10000-20000. Residential Area 56%(n=84) were belonging to rural area. Also found majority 52% (n=78) of the father’s education were Primary. Nearly half of the participant fathers 56.66(n=85) were Farmer.

Table 1. Frequency and percentage distribution of demographic variables of subject (n=150)

| Variable              | Categories | Frequency(N) | Percentage (%) |
|-----------------------|------------|--------------|----------------|
| Age                   | A) 14 – 16 | 0            | 0%             |
|                       | B) 16 – 18 | 4            | 2.60%          |
|                       | C) 18 - 20 | 80           | 53.30%         |
|                       | D) >20     | 66           | 44%            |
| Religion              | A) Hindu   | 119          | 79.33%         |
|                       | B) Muslim  | 31           | 20.66%         |
|                       | C) Christian| 0           | 0%             |
|                       | D) Other   | 0            | 0%             |
| School Performance    | A) Excellent (>85%) | 51     | 34%           |
|                       | B) Good (75-85%) | 77     | 51.33%        |
|                       | C) Average (65-75%) | 17   | 11.33%        |
|                       | D) Poor (<60%) | 5      | 3.33%         |
| Type of Family        | A) Joint family | 97   | 64.66%        |
|                       | B) Nuclear  | 53           | 35.33%         |
| Monthly Family        | A) >10000  | 60          | 40%            |
|                       | B) 10000-20000 | 67   | 44.66%        |
|                       | C) 20000-30000 | 23 | 15.33%        |
|                       | D) Above 300000 | 0  | 0%            |
| Income                | A) Rural   | 84          | 56%            |
|                       | B) Urban   | 66          | 44%            |
| Fathers Education     | A) Illiterate | 36    | 24%           |
|                       | B) Primary | 78          | 52%            |
|                       | C) Secondary | 22   | 14.66%        |
|                       | D) Higher secondary | 14 | 9.30%        |
|                       | E) Graduation | 0  | 0%            |
| Fathers Occupation    | A) Unemployed | 16   | 10.66%         |
|                       | B) Agriculture | 85  | 56.66%        |
|                       | C) Business  | 30           | 20%            |
|                       | D) Labourer | 19           | 12.66%         |
|                       | E) Any other| 0            | 0%             |
Table 2: The result pertaining to knowledge level revealed that nearly half proportion of the adolescent in pre-test 94%(n=141) were satisfactory on knowledge level about 6%(n=9) of them were found to be poor and in post-test 88.66% (n=133) were good on knowledge level About 10%(n=15) of them were found satisfactory and 1.33% (n=2) were found to be very good.

Table 3 depicts the comparison of Post-test score of knowledge level among adolescent Pre-test score of level of knowledge was 1.9400 and Post test score of level of knowledge was 2.9133 with mean difference 0. 9733. The paired pre-test Post-test score of Level of knowledge was compared using paired t-test (Independent t-test) revealed that (t=29.679, df=149, p=0.05) indicate the programme was effective to improve the level of knowledge among adolescent. Hence H01 failed to expect.

Table 4: This section deals with association between pre-test knowledge score and selected demographic variable. Chi square was used to determine the association between the pre-test knowledge score and socio-demographic variable. This area consist the data related to selected demographic variable the is age, religion, school performance, type of family, monthly family income, residential area, father’s education, father’s occupation which shows all the selected demographic variable in found in significant. Hence H02 found expected.

Table 2. Shows frequency and percentage of knowledge level among adolescent

| Sr no | Knowledge Level | Pre – test | Post – test |
|-------|----------------|------------|-------------|
|       |                | Frequency  | Percentage  | Frequency  | Percentage  |
| 1     | Very Good      | 0          | 0%          | 2          | 1.33%       |
| 2     | Good           | 0          | 0%          | 133        | 88.66%      |
| 3     | Satisfactory   | 141        | 94%         | 15         | 10%         |
| 4     | Poor           | 9          | 6%          | 0          | 0%          |
| Total |                | 150        | 100%        | 150        | 100%        |

Fig. 1. Shows Pre-test frequency and percentage of knowledge level among adolescent

Fig. 2. Shows Post-test frequency and percentage of knowledge level among adolescent
### Table 3. Despite Mean, SD, Mean Difference, ’t’ value of pre-post test score, df, ’p’ value of experimental group

| Variables  | Mean | SD    | Mean D | ’t’ value | Df  | ’p’ value |
|------------|------|-------|--------|-----------|-----|-----------|
| Pre-test   | 1.9400 | .23828 | -0.97333 | -29.679 | 149 | 0.05*     |
| Post-test  | 2.9133 | .32639 | 0.97333  |          |     |           |

*p<0.05 level of significance

### Table 4. Association between level of anxiety and sociodemographic variables

| Variable                  | Categories          | Frequency(N) | Percentage (%) | D.F | Table value | Chi square | Level of significance |
|---------------------------|---------------------|---------------|----------------|-----|-------------|------------|----------------------|
| Age                       | A) 14 – 16          | 0             | 0%             | 4   | 9.49        | 3.188      | NS                   |
|                           | B) 16 – 18          | 4             | 2.60%          |     |             |            |                      |
|                           | C) 18 - 20          | 80            | 53.30%         |     |             |            |                      |
|                           | D) >20              | 66            | 44%            |     |             |            |                      |
| Religion                  | A) Hindu            | 119           | 79.33%         | 2   | 5.99        | 1.065      | NS                   |
|                           | B) Muslim           | 31            | 20.66%         | 2   | 5.99        | 1.065      | NS                   |
|                           | C)Christian         | 0             | 0%             |     |             |            |                      |
|                           | D) Other            | 0             | 0%             |     |             |            |                      |
| School performance        | A) Excellent (>85%) | 51            | 34%            | 6   | 12.59       | 5.0532     | NS                   |
|                           | B) Good (75-85%)    | 77            | 51.33%         |     |             |            |                      |
|                           | C)Average (65-75%)  | 17            | 11.33%         |     |             |            |                      |
|                           | D) Poor (<60%)      | 5             | 3.33%          |     |             |            |                      |
| Type of family            | A) Joint family     | 97            | 64.66%         | 2   | 5.99        | 0.364      | NS                   |
|                           | B) Nuclear          | 53            | 35.33%         |     |             |            |                      |
| Monthly family income     | A) >10000           | 60            | 40%            |     |             |            | 0.364<5.99           |
|                           | B) 10000-20000      | 67            | 44.66%         | 4   | 9.49        | 4.404      | NS                   |
|                           | C) 20000-30000      | 23            | 15.33%         |     |             |            | 4.404<9.49           |
|                           | D) Above 30000      | 0             | 0%             |     |             |            |                      |
| Residential area          | A) Rural            | 84            | 56%            | 4   | 9.49        | 5.152      | NS                   |
|                           | B) Urban            | 66            | 44%            |     |             |            | 5.152<9.49           |
| Fathers’ education        | A) Illiterate       | 36            | 24%            |     |             |            |                      |
|                           | B) Primary          | 78            | 52%            | 6   | 12.59       | 5.818      | NS                   |
|                           | C) Secondary        | 22            | 14.66%         |     |             |            | 5.818<12.59          |
|                           | D) Higher secondary | 14            | 9.30%          |     |             |            |                      |
|                           | E) Graduation       | 0             | 0%             |     |             |            |                      |
| Fathers’ occupation       | A) Unemployed       | 16            | 10.66%         | 6   | 12.59       | 4.121      | NS                   |
|                           | B) Agriculture      | 85            | 56.66%         |     |             |            | 4.121<12.59          |
|                           | C) Business         | 30            | 20%            |     |             |            |                      |
|                           | D) Labourer         | 19            | 12.66%         |     |             |            |                      |
|                           | E) Any other        | 0             | 0%             |     |             |            |                      |

*Level of significance: -0.05, $\chi^2=\text{Chi-square}$
4. LIMITATION

1. The study was limited to the adolescents who were study in selected school of chhotaudepur.
2. The study id limited to age group 17-20 adolescents who are available during the time of data collection.
3. Data collected period was limited to 6 weeks.

5. CONCLUSIONS

In this study, to knowledge level releveled that nearly half proportion of the adolescents in pre-test 94% (n= 141) were satisfactory on knowledge level about 6% (n=9) of them were found to be poor and post-test 88.66% (n=133) were good on knowledge level about 10% (n=15) of them were found satisfactory and 1.33% (n=2) were found to be very good.

The study involves pre-experimental design with covenant sampling teaching, 150 adolescent was selected on the basis of inclusion and exclusion criteria conceptual frame work use in this study was “Roy’s adaptation theory”. Analysis of obtained data was plan based on objectives and hypothesis of the Study, descriptive and inferential static word use for analysis of the data and inter pretend by the forms of tables and graphs.

CONSENT

As per international standard or university standard, students written consent has been collected and preserved by author(s).

ETHICAL APPROVAL

The study was approved from ethical committee of Sumandeep Vidyapeeth Institutional ethical committee and ethical approval number is SVIEC/ON/NURS/SRP/20052.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Smith PK, Mahdavi J, Carvalho M, Fisher S, Russell S, Tippett N. Cyberbullying: its nature and impact in secondary school pupils. J Child Psychol Psychiatry 2008; 49:376-85.
2. Spitzberg Brian H., Hoobler Gregory, Cyberstalking and the technologies of interpersonal terrorism, in New media & society, 4 (1), Sage Publications, 2002.
3. Melvina Brandau, Tracy A. Evanston Qualitative Health Research, vol. 28, 10: pp. 1584-1594., Fisculty of Psychology, University of Padua, Department of Philosophy, Sociology, Pedagogy and Applied Psychology (FISPPA), via Cesarotti, 10/12, 35123 Padua, Italy Computers in Human Behavior, Volume 83, June 2018
4. Lee, s.j: chae, Y.G. Children’s internet use in a family context: influence on family relationship and parental mediation. Cyber psychol Behav. 2007,10,640-644.
5. Sara Mota Borges, Sourander A, Hover CW, Mandel D. Cyberbullying and adolescent mental health. Int J Adolesc Med Health 2015; page no 27-35.
6. Bottino SM, Bottino CM, Regina CG, Correia AV, Ribeiro WS. Cyberbullying and adolescent mental health: systematic review. Cad Saude Publica. 2015 Mar;31(3):463-75.

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