

Awareness Regarding Cyberbullying among Adolescents of Selected Schools of Mechinagar Municipality, Jhapa

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Abstract

Cyberbullying is harassing, insulting, physically threatening, socially excluding and humiliating other using electronic media such as E-mail, internet site, instant internet messaging and cell phone text messages. High school and college students continue to be the population that utilizes the internet and social media most often including email, cell phones, instant messaging, and chat rooms. So, these populations are at high risk of cyber bullying. The main objective of this study is to find out the level of awareness regarding cyberbullying among adolescent's students of Mechinagar Municipality. A cross-sectional study was conducted to assess the level of awareness regarding cyberbullying by using non-probability purposive sampling technique among adolescent's students of grade 9 and 10 of two secondary schools of Jhapa through a self-administered questionnaire method. Data was entered in the SPSS version 21 and data analysis was done using descriptive statistics like mean, median, frequency, percentage and standard deviation. Inferential statistics chi-square test was used to show association between cyberbullying and selected socio-demographic variables. The findings of the study concluded that out of 400 respondents, more than one-third of the participants had a low level of awareness of cyberbullying, more than two-fifth had a moderate level of awareness, and least number of participants had a high level of awareness. There was significant association between level of awareness on cyberbullying with parental education and father's occupation.

Keywords

cyberbullying, online bullying, adolescents, students, population

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1 Introduction

Cyberbullying is harassing, insulting, physically threatening, socially excluding and humiliating other using electronic media such as E-mail, internet site, instant internet messaging and cell phone text messages [2]. Adolescence is a time of developing risk-taking skills in addition to periods of growth. Students in high school and college continue to be the group that uses social media and the internet the most, as well as email, chat rooms, cell phones, and instant messaging [14]. So, these populations are at high risk of cyber bullying. Furthermore, as per a 2016 estimate by the United Nations Children's Fund (UNICEF), globally, one in three internet users is an adolescence whereas, in India, the recent 'India Internet Report 2019' suggests that two in three internet users are between 12 and 29 years of age. The young age of this group of internet users often falls prey to online bullies due to their psychological makeup. This has resulted in a spike in cyber bullying and harassment cases. As a matter of fact, in one year alone (2017-2018), cyber bullying of Indian women and teenagers rise by 36% [6]. Likewise, the cyber-attack in Nepal has drastically increased and similarly, the trend to bully someone on the web is on its peak in Nepalese social media. According to the Ministry of Communication and Information Technology, as of January 2018, Nepal's Internet penetration was 73.8%. This percentage is expected to increase significantly by the year 2025. Nepal's Facebook user base had reached 44 percent in June 2021[8]. According to the results of a survey conducted by Ipsoscyber bullying awareness in India, 63 percent of respondents said they had seen, read or heard about cyber bullying. However 37 percent of the respondents had never heard about the issue [5]. A cross-sectional study conducted on 254 school students (15–19 years). About 210 (82.7%) students were using any form of social networking site and out of which 22 (10.5%) students were cyber bullied. Among those who were cyber bullied, the majority (16 [72.7%]) had no opinion and more than half (15 [68.2%]) sought their friends' help [9]. In Pokhara Metropolitan City, Nepal, 450 teenagers participated in a cross-sectional study. The method of convenient sampling was applied. Three sections of the self-administered questionnaire—sociodemographic traits, internet-related, and experience with cyberbullying and cyber victimization—were employed. Cyberbullying and cyber-victimization had 30-day prevalence of 14.4% and 19.8%, respectively, and lifetime prevalence of 24.2% and 42.2%. The most prevalent type of cyberbullying and cyber victimization was posting cruel or hateful remarks online. Men were more likely than women to engage in cyberbullying [7].

Cyber bullying is one type of cybercrime. The Nepal's Electronic Transaction Act 2063 has made provision of punishment for those who are involved in cybercrime which can go up to 5 year imprisonment and 100,000 fine or both for publishing illegal things in any electronic media. Legal provision is a reactive measure to reduce cyber bullying which has been ineffective as mostly unreported and hidden [3].

2 Material and Methods

The study was conducted in two selected schools of Jhapa district which is located in Mechinagar Municipality. Study population was total number of students of grade 9 and 10 of two selected schools i.e. Dhulabari secondary school, Mechinagar -10 and Adarsha secondary school, Mechinagar-8. The sampling approach used was purposive non-probability sampling. The total number of sample collected was 400 including both schools. Data were collected using a self-administered, semi-structured questionnaire that had been pretested. The development of the tool was based on the objectives of the study and done based on a literature review and expert consultation. Academic Approval was taken from Biratnagar Nursing Campus before data collection. The respondents were told of the study's purpose, and their written informed consent was obtained. The data was collected from students within one week. Throughout the study, confidentiality and privacy were maintained. All the data was kept for editing and coding. Data processing was done by using the Statistical Package for the Social Science (SPSS) version 21.

3 Results

Data were collected from 400 adolescent's students of two selected schools of Jhapa district using self-administered questionnaire. Data was organized, analyzed, and interpreted according to the objectives and nature of the research question by using descriptive and inferential statistics. Distribution of socio-demographic characteristics of respondents in which the overall mean and standard deviation of age was 15.4 ± 1.153 . Out of 400 respondents, 55.8% were between ages of (12-15) years and 44.3% were of age group (16-19) years. Among them 42.8% were male and 57.3% were female. Regarding ethnicity nearly one-third of them belong to Brahmin/Chettri and majority of the participants followed the Hindu religion (87.8%). Concerning the educational level of the parents more than one-third of them have attended secondary and primary level education while the illiteracy rate is more among

mothers (28.7%) than of fathers (18.8%). Most of the participants' academic performance was average which falls mostly on the category from grade B+ (32.3%) and B (27.8%) Table (1). Information about the socio-economic characteristics of the respondents was illustrated Table (2). More than 40% had started using social sites since 1-2 years and mobile is the most commonly utilized device

among others. Similarly, Facebook is the most popular online platform browsed by 84.3% participants followed by instagram while other sites were less commonly used. More than half of the adolescents used their personal device. Furthermore, the most of the respondents spent time on social platforms for doing homework and chatting with friends respectively (74.5% and 55.3%) Table (3).

Table 1: Socio-Demographic Information of Respondents (n=400)

Variables	Frequency (N)	Percent (%)
Age		
12-15 yrs	223	55.8
16-19 yrs	177	44.3
Mean \pm SD: (15.4 \pm 1.153)		
Sex		
Female	229	57.3
Male	171	42.8
Class		
Class 10	218	54.5
Class 9	182	45.5
Ethnicity		
Dalit	40	10.0
Janajati	163	40.8
Madhesi	60	15.0
Brahmin/Chettri	137	34.3
Religion		
Hindu	351	87.8
Buddhist	21	5.3
Muslim	15	3.8
Christian	13	3.3
Father's Education		
Illiterate	75	18.8
Basic level	143	35.8
Secondary level	142	35.5
Higher secondary level and above	40	10.1
Mother's Education		
Illiterate	115	28.7
Basic level	134	33.5
Secondary level	130	32.5
Higher secondary level and above	21	5.3
Grade Obtained in Immediate Examination		
A+	27	6.8
A	49	12.3
B+	129	32.3
B	111	27.8
C+	59	14.8
C	25	6.0

Nearly three-fourth (71.5%) answered that cyber-bullying means Harassing, insulting and humiliating other while nearly one third (32.8%) reported

it is teasing by using social media. More than 70% are aware that cyberbullying is online bullying and more than half of the students were aware of the

types of cyberbullying. More than four-fifth of the participants (83%) reported that perpetrators of cyberbullying are unknown person Table (4). Respondent's Awareness Regarding Information on cyberbullying was illustrated Table (5). Level of awareness shows that most of the respondents (43%) had moderate level of awareness regarding cyberbullying, more than one third (39%) of the respondents had low level of awareness and only 18% of the respondents had high level of awareness Table (6). There was significant association between level of awareness on cyberbullying with parental education and father's occupation Table (7). Table (1) illustrates the distribution of socio demographic characteristics of respondents in which overall mean and

standard deviation of the age of the respondent was 15.4 ± 1.153 . Out of 400 respondents, 55.8% were between ages of (12-15) years and 44.3% were of age group (16-19) years. Among them 42.8% were male and 57.3% were female. Regarding ethnicity nearly one-third of them belong to Brahmin/Chettri and majority of the participants followed the Hindu religion (87.8%) whereas the remaining 12.4% were religious minorities (Buddhist, Muslim, Christian). Concerning the educational level of the parents more than one-third of them have attended secondary and primary level education while the illiteracy rate is more among mothers (28.7%) than of fathers (18.8%). Most of the participants' academic performance was average.

Table 2: Socio-Economic Information of Respondents (n=400)

Variables	Frequency (N)	Percent (%)
Father's Occupation		
Laborer	170	42.5
Business	125	31.3
Private job	80	20.0
Government job	25	6.3
Mother's Occupation		
Homemaker	254	63.5
Business	82	20.5
Private job	43	10.8
Government job	21	5.3
Residence		
Urban	285	71.3
Rural	115	28.8
Family Income per Month		
≤ 20000	182	45.5
> 20000	218	54.5
Type of Family		
Nuclear family	233	58.2
Joint family	167	41.8

Table 2 shows the information about socio-economic characteristics of the participants where most of father occupation is laborer and business (42.5 and 31.3%) however, nearly two third (63.5%) of the mothers are homemakers while only 36.5%

are engaged in other occupation. Most of them (71.3%) reside in urban area and more than half of the participants were living in small family and had family income above 20000.

Table 3: Respondent's Information Related to Internet or Device Used (n=400)

Variables	Frequency (N)	Percent (%)
Started Using Social Media (in years)		
1-2	179	44.8
2-3	76	19.0
3-4	64	16.0
> 4 years	81	20.3
Device Used*		
Mobile	386	96.5
Computer	41	10.3
Laptop	37	9.3
Tablet	16	4.0
Types of Social Media*		
Facebook	337	84.3
Instagram	192	48.0
Snapchat	80	20.0
YouTube	8	7.5
Others**	7	2.5
Personal Device Used		
Yes	217	54.3
No	183	45.8
Device Used With*		
Parents	203	50.7
Siblings	84	21.0
Friends	24	6.0
Place for Using Social Media*		
Home	386	96.5
Public Place##	14	3.5
Time Spent on Social Media in a Day (in hrs)		
< 2 hrs	231	57.8
2-3 hrs	111	27.8
3-4 hrs	49	12.3
> 4 hrs	9	2.1
Purpose of Using Computer/Phone*		
To do homework	298	74.5
Chatting with friends	221	55.3
Play online games	98	24.5
Others#	11	2.75

*Multiple response questions

**Others: Google, YouTube, Telegram, Twitter, WhatsApp, TikTok, Imo

##Public Place: School, public places

#Others: Online business, drawing, entertainment, listening to music, news, videos, watching movies, YouTube video upload

Table 3 depicts information regarding social media sites and gadgets used by the adolescents where more than 40% had started using social sites since 1-2 years and mobile is the most commonly utilized device among others. Similarly, Facebook is the most popular online platform browsed by 84.3% participants followed by Instagram while other sites were less commonly used. More than half of the adolescents used their personal device while 45.8%

don't have own gadgets so, they access social networking site through devices of parents, siblings and friends. About three-fifth (60%) of them access social media app less than 2 hours and the place for using is mostly home. Furthermore, the most of the respondents spent time on social platforms for doing homework and chatting with friends respectively (74.5% and 55.3%).

Table 4: Awareness Regarding Cyberbullying among Respondents (n=400)

Variables	Frequency (N)	Percent (%)
Meaning of Cyberbullying*		
Harassing, insulting, and humiliating others	286	71.5
Teasing by using social media	131	32.8
Cyberbullying is online bullying	291	72.8
Devices Related to Cyberbullying*		
Mobile phones	356	89.0
Computer	243	60.8
Online Platforms Causing Cyberbullying*		
Social media	249	62.3
Emails	197	49.3
Text messages	158	39.5
Gaming platforms	51	12.8
Types of Cyberbullying*		
Sending many unwanted texts to others	235	58.8
Posting private messages or images of someone	211	52.8
Sending porn or junk mails	181	45.3
High-Risk Age Group for Cyberbullying*		
Adolescents	332	83.0
Youth	140	35.0
Consequences of Cyberbullying*		
Psychological effects	245	62.5
Emotional effects	242	60.5
Decrease in academic performance	157	39.3
Physical effects	141	35.3
Warning Signs of Being Cyberbullied*		
Social withdrawal/loss of interest	245	61.3
Emotional distress	234	58.5
Decline in academic performance	136	34.0
Avoidance of technology	126	31.5
Perpetrators of Cyberbullying*		
Unknown person	332	83.0
Friends	182	45.5
Relatives	115	28.7

*Multiple response questions

Table 4 shows awareness regarding cyberbullying, out of 400 respondents nearly three-fourth (71.5%) answered that cyberbullying means Harassing, insulting and humiliating others. More than 70% are aware that cyberbullying is online bullying. Likewise, majority of them (89%) responded cyber abuse is experience through mobile phones whereas more than half of the students were aware of the types of cyberbullying. More than three-fifths (62.3%) proportion of the students replied that the online platform for causing internet bully is social media. Furthermore, majority of (83%) answered high risk group for online abuse is adolescents. More than three-fifth of them reported the consequences of cyberbullying is psychological

and emotional effects. More than four-fifth of the participants (83%) reported that perpetrators of cyberbullying are unknown person.

Table 5 illustrates nearly three quarter (74%) respondents answered common form of online harassment is ID hacking followed by threat and blackmail (58.5%). Nearly three-fourth (71.8%) reported that they get information about online abuse through school curriculum while those reporting television, radio and newspaper as source of information are less than 50%. More than half of the respondents (58.8%) answered that reason for cyberbullying is personal issues and frustrations.

Table 5: Respondent's Awareness Regarding Information on Cyberbullying (n=400)

Variables	Frequency (N)	Percent (%)
Common Forms of Cyberbullying*		
ID hacking	296	74.0
Threat and blackmail	234	58.5
Trolling	91	22.8
Cyber stalking	90	22.5
Reasons for Cyberbullying*		
Personal issues and frustrations	235	58.8
Peer pressure	137	34.3
Out of boredom	105	26.3
Educational Program Provided by School*		
Yes	251	62.7
No	149	37.3
Ever Experienced Cyberbullying*		
Yes	141	35.3
No	259	64.8
Ever Involved in Cyberbullying Behavior*		
Yes	31	7.8
No	369	92.3
Preventive Measures of Cyberbullying*		
Awareness programs	258	64.5
Education for parents about cyberbullying	237	59.3
Including cyberbullying lessons in school curriculum	223	55.8
Community-level awareness	219	54.8
Source of Information*		
School curriculum	287	71.8
Television	163	40.8
Newspaper	150	37.5
Radio	92	23.0

*Multiple response questions

More than one-third (35.3%) of adolescents have experienced cyberbullying while those involving in cyberbully behavior are significantly low at 7.8%. Nearly two-third (62.7%) agreed their school provides educational programme regarding cyber bullying. Moreover, nearly 60% answered that digital harassment can be prevented by making parents aware followed by awareness programme(64.5%), inclusion of subject matter related to interne abuse in school curriculum (55.8%) and community level awareness (54.8%). Similarly, more than 80%

replied that it can be manage through legal provision followed by protecting account with password (61.5%).

The Table No. 6 shows the level of awareness of the respondents regarding cyber bullying where most of the respondents (43%) had moderate level of awareness regarding cyberbullying, more than one third (39%) of the respondents had low level of awareness and only 18% of the respondents had high level of awareness.

Table 6: Level of Awareness of Respondents (n=400)

Variables	Frequency (N)	Percent (%)
Low level awareness	156	39.0
Moderate level awareness	172	43.0
High level awareness	72	18.0

Total Score: 44

Interpretation of Awareness Levels:

High: More than 75% (> 33) , Moderate: 51-75% (23 – 33), Low: Less than 50% (≤ 22)

Table 7: Association between Level of Awareness and Selected Socio-Demographic Characteristics (n=400)

Variables		Low (%)	Moderate (%)	High (%)	p-Value
Age	12-15 yrs	82 (36.8%)	98 (43.9%)	43 (19.3%)	0.547
	16-19 yrs	74 (41.8%)	74 (41.8%)	29 (16.4%)	
Sex	Male	76 (44.4%)	64 (34.4%)	31 (18.1%)	0.109
	Female	80 (34.9%)	108 (47.2%)	41 (17.9%)	
Class	Class 9	76 (41.8%)	85 (46.7%)	21 (11.5%)	0.009*
	Class 10	80 (36.7%)	87 (39.9%)	51 (23.4%)	
Ethnicity	Dalit	18 (45.0%)	18 (45.0%)	4 (10.0%)	0.101
	Janajati	68 (41.7%)	73 (44.8%)	22 (13.5%)	
	Madhesi	23 (38.3%)	27 (45.0%)	16 (16.7%)	
	Brahmin/Chettri	47 (34.3%)	54 (39.4%)	36 (26.3%)	
Religion	Hindu	136 (38.7%)	148 (42.2%)	67 (19.1%)	0.057
	Buddhist	11 (52.4%)	8 (38.1%)	2 (9.5%)	
	Muslim	7 (46.7%)	5 (33.3%)	3 (20.0%)	
	Christian	2 (15.4%)	11 (84.6%)	0 (0.0%)	
Father's Education	Illiterate	33 (44.0%)	36 (48.0%)	6 (8.0%)	0.000*
	Primary level	64 (44.8%)	63 (44.1%)	16 (11.2%)	
	Secondary level	52 (36.6%)	57 (40.1%)	33 (23.2%)	
	Higher secondary and above	7 (16.4%)	16 (41.0%)	17 (43.6%)	
Mother's Education	Illiterate	55 (47.8%)	51 (44.3%)	9 (7.8%)	0.000*
	Primary level	58 (43.3%)	53 (39.6%)	23 (17.2%)	
	Secondary level	38 (29.2%)	64 (49.2%)	28 (21.5%)	
	Higher secondary and above	5 (23.8%)	4 (19.0%)	12 (57.1%)	
Father's Occupation	Government job	8 (32.0%)	12 (48.0%)	5 (20.0%)	0.045*
	Private job	31 (38.8%)	29 (36.3%)	20 (25.0%)	
	Business	42 (33.6%)	54 (43.2%)	29 (23.2%)	
	Laborer	75 (44.1%)	77 (45.3%)	18 (10.6%)	

* p-value < 0.05 indicates statistical significance.

Table No.7 shows the association between level of awareness regarding cyberbullying with socio-demographic characteristics where level of awareness was significantly associated with parental education and father's occupation as p value (0.00* & 0.45*).

4 Discussion

The socio-demographic information showed that more than half proportion of the respondents (55.8%) were between 12-15 years of age and 44.3% of the respondents were between 16-19 years of age. The mean age of the respondents was (15.4). Female respondents (57.3%) were higher than male

respondents (42.8%). The majority of the participants followed the Hindu religion (87.8%) whereas the remaining 12.4 % were religious minorities (Buddhist, Muslim, Christian). The results were consistent with the study conducted among 254 school students (15-19 years) in Kolkata, West Bengal showed the mean age of the participants was $15.6(\pm 1.4)$ years and majority were female(61%) and most of the participants(94.4%) were following Hindu religion[9]. The similarity may be due to similar study setting and population. In present study, the educational level of the father is mostly primary and secondary level (35.8%& 35.5%) and nearly half of the participant's father was laborer. Moreover, nearly three-fourth of the participants resides in the urban area and had a family income of more than 20000. This contradicts with the previous research done India where the majority (52%) father occupation was primary and nearly half (56.6%) were farmer where 44.66% participants had family income of rupees 10000-20000 and the residential area 56% were belonging to rural area. Regarding the use of internet and social sites 44.8% had started using social media since 1-2 years and only 20.3% were using from four years and above. Mobile phone was the most commonly used device followed by computers likewise, facebook is the most popular social networking site and more than half of the participants spent > 2 hours daily on social media. The present findings had shown that most of them were using any form of social networking sites, with majority using internet from home, consistent with studies in Kolkata [9]. Most of them utilized gadgets for doing homework 298 (74.5%) and connecting with friends 221(55.3%) coherent with the finding of the research conducted in Indonesia [13]. According to the research participants' level of awareness, more than one-third of the participants (39%) had a low level of awareness of cyberbullying, more than two-fifth (43%) had a moderate level of awareness, and 18% had a high level of awareness. Though global awareness of cyberbullying is high (75%), one quarter of adults have still never heard of it. Awareness is highest in Sweden and Italy (91% each) and lowest in Saudi Arabia (37%). In contrast to present study, Italy has seen the greatest increase in awareness of cyberbullying, from 57% aware in 2011 to 91% now. The United States also has high awareness (85%), though the level of awareness is relatively unchanged since 2011 (82%)[12]. According to the results of a survey conducted by IPOs' cyber bullying awareness in India, 63% of respondents said they had seen, read or heard about cyber bullying. However 37 % of the respondents had never heard about the issue [5]. In current study, according to the responses received, more than 50% of the respondents are clear about the meaning of cyberbullying, and the

majority believe that harassing, insulting, humiliating others using electronic devices, sending unwanted text and messages and posting private messages of someone are cyberbullying acts which is coherent with the study done in India[6]. Furthermore, the adolescents answered the most common motive of online abuse is because of personal issues and frustrations (58.8%) followed by peer pressure (34.3%) and out of boredom(26.3%) which corresponds with the previous participatory research done in Netherland[1]. According to the study, psychological stress (62.5%), emotional stress (60.5%), decrease academic performances (39.3%), physical effects (35.3%) were the most frequent effects of cyberbullying reported by the respondents. Similar stress were expressed in a study that concluded around one-third of the participants had felt lonely (33.6%) and had anxiety (34.2%). Similarly, 13.6% had considered suicide and 10.3% had attempted suicide. Absenteeism due to unsafe feeling was reported among 41.2% of the students and 28.3% had missed school without taking permission [10]. Similar findings were observed that victims were vulnerable to psychological health consequences; victims could be at increased risk of not only mental problems including physical illnesses and injuries which may hamper the social development of a child [14]. In present study, most of the participants have confronted with cyberbullying as a witness, victim, or bully. Nearly 35.3% of adolescents have experienced cyberbullying while those involving in cyberbully behavior are significantly low at 7.8% is similar to the study finding based on insights of participatory research conducted in the University of Twente, Enschede[1]. Concerning the perpetrators of cyberbullying as per the student's response majority (83%) of them believe cyberbullying was done by unknown person, 45.5% by friends and 28.7% by relatives. which follows similar pattern to case study done in Indian higher education institutions [6]. Similar trend can also be seen in studies done in Nigeria among undergraduate students. More than half of the respondents (62.7%) reported getting information regarding cyber bullying from school. Moreover, nearly two-third(64.5%) answered that digital harrassment can be prevented through awareness programme(65.5%), followed by making parents aware (59.3%),inclusion of subject matter related to interne abuse in school curriculum (55.8%) and community level awareness (54.8%) that aligned with other studies[6]. Similarly, more than four-fifth (81%) replied that it can be managed through legal provision followed by protecting account with password (61.5%). Likewise, in the survey taken in Nepal private schools, 70% respondents believe that the school can contribute reducing cyber bullying by raising awareness and supporting the victims. Similarly, the 58% respondents

opined that they can contribute raising awareness on cyber bullying. Importantly, the 33% respondents believe that the government can help reduce cyber bullying by increasing awareness among students by including lesson related to cyber bullying in school curriculum. Similarly, 28% respondents want government to increase punishment and also increase cyber monitoring [10]. The current study found that level of awareness was significantly associated with parental education and father's occupation which contradicts with the previous study conducted among nursing students in SGT University, Gurugram, Haryana which shows no significant association between parents' educational and occupational level [4]. These discrepancies may be due to different study setting and population.

5 Conclusion

The findings of the study concluded that more than one-third of the participants had a low level of awareness of cyberbullying, more than two-fifth had a moderate level of awareness, and least number of participants had a high level of awareness. There was significant association between level of aware-

ness of cyberbullying with parental education and father's occupation. The majority of respondents defined cyberbullying as using electronic means to harass, insult, or degrade another person. Personal problems and irritation were the most frequently stated causes of cyberbullying, while psychological stress was the most prevalent result.

6 Acknowledgment

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