ORIGINAL ARTICLE



Disasters of Cyber World - A Question on Mental Health

Maaza Saeed¹, Maryam Rizvi², Sadia Saleem², Caina Li³

¹Institute of clinical psychology (ICP), University of Management and Technology (UMT), School of Psychology, Shaanxi Normal Universityand Shaanxi, Xi'an, China, ²Institute of clinical psychology (ICP), University of Management and Technology (UMT), Lahore, Pakistan, ³School of Psychology, Shaanxi Normal Universityand Shaanxi Provincial Key Laboratory of Behavior and Cognitive Neuroscience, Xi'an, China

ABSTRACT

The present study investigated the relationship between cyberbullying and mental health problems in university students. 200 university students were selected through a stratified sampling technique with the age range of 18–40 years (mean = 1.21, standard deviation = 0.408). Cyberbullying assessment scale and student problem checklist along with demographic pro forma used to obtain information. The results revealed that cyberbullying is the positive predictor of mental health problems in university students. The major limitation of the study was that sample of the study was not very large and also limited to just one city of Pakistan. Further researchers can use it to check the validity of the study and also use it with the emotional behavioral problems, personality type, and with another dimensions such as academic performance, parental relationship and bonding with loved once can also be investigated with this phenomena. The results are discussed in the specific cultural context of Pakistan.

Key words: Cyberbullying, mental health problems, university students

INTRODUCTION

In the world of today, the youth is broadly open to an internet gifted world where blogs, social networking, and instant messaging are supplanting face-to-face contacts and cellular phone communication is used as the foremost means of interaction. Children and adult spend a great time of their busy schedule using internet networking.

[11] The marked usage of internet networking has numerous positives with it as a fast, advantageous, and appropriate mode of communication but it has darker shades too such as the cyberspace is also used negatively by individuals where they use it as a medium to harass and threat other fellows. [9]

Internet networking attracts individuals universally just not only as a mean for communication but also for making their social identity. Living in the age where networking is predominant as using virtual world has number of assets. Virtual world provides us best platform to develop and to regain skills and realm of information. It also helps us to relate and to understand the others perspectives and to show our sentiments through truly vigorous techniques; virtual

world also allows us to be the part of rational, emotional, and political thoughts, it also showed us the path of inventiveness and understanding of our own self and about cultural differences. [9] Apart from a bundle of assets of using "virtual world," there are some risks too as the superior quantity of our grownups has hurriedly amended to use of the virtual world. Just because of its extra use have aggregate the grownups to be wide-open to relational forcefulness, hostility to some extent damage, abuse, and victimization conventionally done due to virtual harassment. [9]

The cyberbullying experienced by individuals comprises following such as flaming in which online fights usually through emails, instant messaging. Denigration, in which putting mean online messages to someone. Outing, which include sharing secrets about someone online including private information, pictures, and videos. Trickery includes tricking someone into revealing personal information than sharing it with others. Impersonation, pretending to be someone else when sending or posting mean or false messages online. Cyber stalking includes continuously harassing, denigration, and threats of physical harm.^[4]

Address for correspondence:

Maaza Saeed, ICP,UMT, Lahore, Pakistan, School of Psychology, SNNU, Xian, China. E-mail: maaza.saeed@yahoo.com

© 2019 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

As we know virtual victimization is new form of harassment from old styled form of harassment, cyberbullying is the use of technology to harass, threaten, humiliate, or target another person, three roles have been identified in cyberbullying: The aggressor, the victim, and the bystander.^[11]

Group of population who found in colleges and universities are mostly teenagers. Nowadays, university student's experience not only academic stress and adjustment issues but they also keep themselves exposed to higher risks of being victim of cyberbullying. One of the novels and new form of mistreatment which is faced by students, who spend momentous part of their lives on networking is known as virtual victimization.^[2,9] Today, in the world of technology, 97% of the teenagers use the internet in their daily activities (Lenhart *et al.*, 2005).

According to Gilkerson (2012) individuals who devote a supplementary period of their whole day on virtual networking communal interaction were expected to be the object of online harassment. Campbell (2005) found that magnitudes of virtual victimization are more tougher than the old style form of harassment. Individuals who were victims of virtual abuse turn out to be more sensible as regard to their protection and security. It has been seen, and through researches, it has been found that sufferers of virtual victimization had number of greater depressive signs rather than the sufferer of a traditional form of harassment. [13]

Cyberbullying affects people from any age or walk of life, including children, teens, and adults who all feel very distressed and alone when being bullied online. Cyberbullying can make you feel totally overwhelmed which can result in feeling embarrassed and depressed. Not only does it go on after school, college, or work has finished but also it then carries through into the next day, and the cycle continues. It has been well documented that cyberbullying has resulted in tragic events including suicide, and self-harm and clearly, more needs to be done to protect vulnerable children and adults from online bullying. In associations of both genders inconsistency existed among investigators.^[17]

A research finding showed that targets of cyber harassment states that, their incident of virtual victimization scattered their confidence their appearance at their academic institutes, their use of virtual world, there level of self-regard and mental and emotional well-being. The result of the study indicates that more proportion of girls (20%, n = 31) than boys (7%, n = 5) provided additional detail about how the cyberbullying experience had affected them. In the present research, the focus was on "cyberbullying" and "mental health" problems in the university students. Victims of cyberbullying faced different kinds of "mental health problems" such as "suicidal ideation and in some cases suicide, self-inflicted harm, depression, stress, and alcohol abuse." In the present research is the university students.

It has been found and suggested through prior researches that a combination of "rational choice theory" and "self-control theory" was used to clarify cyberbullying related effects,[8] "Rational Choice Theory" Keel (1997), stated that individuals can liberally decide on their activities and they are inspired by the dodging of agony and also the search of desire and happiness. It when individual's known that they are difficult to get caught they do more serious acts like in a study it has been found that unrecognizability is known as one of the significant keys to the acts of cyberbullying[18] support for the theory in a study concludes that the risk of youth being bullied is higher for adolescents who have an active profile on social networking sites and participate in chat rooms. These youth seem to be suitable targets. Furthermore, the results indicate that the absence of parents or capable guardians in cyberspace is related to victimization of cyberbullying.

Self-control theory holds the belief that participation in deviant activities be contingent on an individual's magnitude of self-control. The more appropriate and reachable the "victim," the more expected that misconduct will happen. [3] In a study Veenstra (2009), determine why some youth make the rational decision to cyber bully while others do not, self-control theory was used. Consistent with the self-control theory, the results indicate that cyberbullies have less self-control than non-cyber bullies.

Although many different studies have been done in Pakistan relating to victimization in school ith association to relationship difficulties and academic performance but cyberbullying has been neglected by the researchers in Pakistan. "Cyberbullying" has been neglected areas by the Pakistani researchers and there was no such study that explores the relationship between "cyberbullying" and "mental health problems" in university students.

The theme of the present study is all about exploring cyberbullying in university students and as well as its influence on their mental health. The purpose of this research is mainly to find out the expression of "cyberbullying" in university students, according to the Pakistani cultural context and to measure their relationship with mental health problems. Hece, this study was an initial step which explored the relationship between these two variables with key demographic variables.

Objective

The objective of the study was to determine the relationship between cyberbullying and mental health problems in university students.

METHODS

Research design

The correlational research design was used for this research because the aim of the present research is to identify the relationship between both variables among university students.

Participants

University students of BSC and M.Phil./M.S with age range 18–40 were the participants from the two government and the two private sector Universities of Lahore Pakistan. Both male and female students who used social networking sites from past 3 to 4 years were included. Those participants who did not use social networking sites from past 3 to 4 years were excluded from the study. Stratified sampling technique was used to divide the sample into two main strata, namely males and females than further substrata were made on the basis of academic years.

MEASURES

Cyberbullying assessment scale (cbas)

An indigenous scale, namely "cyberbullying" assessment scale was used to explore the cyber bullying in university students. The scale consist on 49 items and response options were accordingly 0 = Very strongly disagree, 1 = Disagree, 2 = Agree, and 3 = Strongly agree. And mark on yes or no according to the question. And some of the items of the scale was open-ended.

Student problem checklist (spcl) (mahmood and saleem, 2011)

To measure the "mental health problems" of university students, an indigenously developed SPCL was used. SPCL consists of 45 items and 4 factors, namely "sense of being dysfunctional," "loss of confidence," "lack of self-regulation," and "anxiety proneness." This scale was found to have an acceptable level of psychometric properties, with the internal consistency of 0.94 and test-retest reliability of 0.81 with 1 week interval. The split-half reliability of SPCL is 0.83.

ETHICAL CONSIDERATIONS

A formal written letter that briefly describes the objectives of the study, the time commitment, the potential impact, and the potential customs of the research was sent to the management to convince about the relevance and usefulness of the research and to obtain permission to carry out the research. All participants also receive information about the study and sign a consent form for their participation. Participants informed that they had the right to participate or withdraw.

PROCEDURE

Total 7 Universities, 3 Government and 4 private were visited to take permission. Each university was visited personally by the researcher and authorities were briefed about the aim and objectives of the research along with the maintenance of privacy and confidentiality of both students and universities. After getting the information, 2 government and 2 private universities allowed to collect data and other refused due to their security reasons. Classes were randomly selected, and the researcher introduced himself. Verbal instructions were given to them. They were also informed that this information will be used for research purpose only and this confidentiality will also be maintained. They also had the right to participate or withdraw. The students who showed interest were selected as research participants, and the CBAS and SPCL were given to them. The research carried out with the help of class teacher in group setting consisting of 10–15 students at a time from one class. Average time to complete the research protocol was 20-25 min in one session. After the administration of protocol in each session, participants were debriefed about the study to resolve the gueries regarding research and feedback was also taken from them.

RESULTS

Table 1 indicates that sense of being dysfunctional has a significantly high correlation with depressive symptoms, anxiousness, intrapersonal problems, and interpersonal problems of CBAS. The second factor of lack of the confidence has a highly significant correlation with depressive symptoms, anxiousness, intrapersonal problems, and interpersonal problems of CBAS. The third factor of

Table 1: Multiple regression analysis of factors of CBAS and factors of SPCL scale (n=200)								
Factors	F1 SPCL	F2 SPCL	F3 SPCL	F4 SPCL	F1 CBAS	F2 CBAS	F3 CBAS	F4 CBAS
F1 being dysfunctional	-	0.85***	0.72***	0.81***	0.38**	0.26**	0.40**	0.37**
F2 loss of confidence	-	-	0.69***	0.79***	0.37**	0.29**	0.37**	0.32**
F3 lack of self-regulation	-	-	-	0.67***	0.31**	0.27**	0.27**	0.24**
F4 anxiety proneness	-	-	-	-	0.41**	0.26**	0.40**	0.31**
Depressive symptoms	-	-	-	-	-	0.81***	0.74***	0.70***
Anxiousness	-	-	-	-	-	-	0.59***	0.61***
Intrapersonal problems	-	-	-	-	-	-	-	0.75***
Interpersonal problems	-	-	-	-	-	-	-	-

^{*}P<0.05,**P<0.01, *** P<0.001, SPCL: Student problem checklist, CBAS: Cyberbullying assessment scale

lack of self-regulation has a significantly positive correlation with depressive symptoms, anxiousness, intrapersonal problems, and interpersonal problems of CBAS factors. The fourth factor of SPCL anxiety proneness has significantly high correlation with depressive symptoms, anxiousness, intrapersonal problems, and interpersonal problems of CBAS factors.

Table 2, using the enter method, hierarchical regression analysis revealed that gender and sector of the participants were the strong positive predictors of mental health problems in the four steps of the hierarchical regression analysis of the CABS. In the third steps with gender and sector, depressive symptoms factor of CBAS was also found to be the strong positive predictor of mental health problems.

Table 3 indicates that there is a significant difference between both genders (male and female) on the 4 factors of cyberbullying assessment CBAS. On all the factors of CBAS female participants scored more than males which show that female participants experienced more depressive symptoms, anxiousness, interpersonal problems, and intrapersonal problems than male participants.

DISCUSSION

Now our world is defined as a universal community, and the daily livings of human being are drasticallying and interacting with one another. Once the person cutoff from "cyber world" he feels alien in that social gathering and misses his/her social world.

The result of the present study reveals that there is a very minor difference between males 85% and females 91% cyber

victimization. One of the causes of cyberbullying is it often occurs in the context of relationship difficulties, such as the break-up of a friendship or intimate relationship, envy of a peer's success, or in the context of prejudiced intolerance of particular groups on the grounds of gender, ethnicity, sexual orientation or disability, and nowadays bullies found it easy to show their aggression through the means of technology. There is very slight difference between both genders that use these kinds of means to harass others. It might be because both genders hide themselves under the shelter of anonymity and able to have number of fake accounts as different identitiealter due to the advancement in cyber networking. The cyberspace attracts audience worldwide, not only as a means to communicate but also for making their social identity using internet is very much common and has become the need of the time, and the virtual realm offers us bounteous chances, for example, email, online chat, video, and audio calls apart from these access of information relating to their academic necessities and so on and on.

Youth especially university students update their information through the internet networking. Virtual world transforms our communal relationships by providing us face-to-face interaction, alike to the "telegraph" and "phone" as virtual network also connect us with the wider world, for example, "radio" and "television." It has been found through researches that human conduct on the cyber world related activities has both assets and disadvantages (Campbell, 2005). Assets of the cyber world are as people who are more introverts can contact with others through networking and can share about their inner feelings and thoughts. It has been said that moral and the immoral are like two sides of a penny.

Besides all the assets of the virtual world, it has some darker shades too. In the present research number of shortcomings of

Table 2: Hierarchical	regression analysis	s of predictor of	of mental health	problems in u	niversity stude	ents (<i>n</i> =200)
Model	В	SEB	β	t	$\Delta {\sf R}^2$	P
Step 1 control variables						
Gender	19.16	2.89	0.43	6.63	0.21	0.001***
Sector	-6.03	2.94	-0.13	2.05		0.041*
Step 2						
Gender	19.14	2.88	0.43	6.64	0.21	0.001***
Sector	-6.81	3.03	-0.01	0.16		0.026*
Step 3						
Gender	15.79	2.85	0.352	5.55	0.28	0.001***
Sector	-5.97	2.91	-0.13	2.06		0.041*
Depressive symptoms	1.14	0.36	0.33	3.16		0.002***
Step 4						
Gender	15.71	2.89	0.35	5.43	0.29	0.001***
Sector	-5.80	2.89	-0.13	2.01		0.046

 $^{^*}P$ <0.05, $^{***}P$ <0.001, only significant results are presented in all steps

Table 3: Inter correlation *t*-test of cyberbullying with key demographic variable gender cyberbullying (*n*=200)

		, ,		
Factors	Gender	Mean±SD	t	P
Depressive	Male	15.13±7.07	3.84	0.001***
symptoms	Female	18.59±5.59		
Anxiousness	Male	10.98±5.27	2.19	0.030*
	Female	12.51±4.60		
Intrapersonal	Male	11.65±5.98	4.25	0.001***
problems	Female	14.88±4.71		
Interpersonal	Male	5.57±3.46	2.13	0.035*
problems	Female	6.54±2.98		
Total	Male	17.22±8.92	3.67	0.001***
	Female	21.42±7.16		

df=198,*P<0.05, ***P<0.001, SD: Standard deviation

technology use was reported, for example, the reinforcement of inconsiderate conducts and amplified isolation. Antisocial behavior in terms of when people saw anyone doing morally or ethically wrong acts, and they are not punished or catch up easily by others it might pinch their darker side too, and they might be involve in the same activity. And loneliness is another negative aspect of dark cyber world in terms of when people constantly used to be in cyber world either they are sitting in a family or friends gathering and instead of interacting with them continually paying more attention to the cyber world, so they miss all the quality time in their family and friends gatherings, and continuously doing so will eventually leads them in a phase of loneliness with their cyber world. Nowadays, people are more into leg pulling of others through the advanced networking such as sending anonymous hate emails and get involved in hacking, calling bad names of bright student is common activities of both genders. In the entire above cyberbully behaviors, one factor is common which is known as anonymity.

Anonymity has strong ties with bullying.....(such as previous findings suggests thats anonymity is one of the keys to bullying). Previous research also suggests anonymity is one of the keys to cyberbullying. [18] Similarly, previous findings confirm the findings of present research as in previous findings on the focus of parting of the sexual role in "cyberbullying" are not stable. It was found that more number of males are being cyberbullied. [9] One of the reasons behind it might be that less number of individual especially female inform to their adults or they less likely to discuss their incident with others. Moreover, in other studies, it was found that more number of females are being cyberbullied. [9] It might be due to lack of technical knowledge and ways to protect oneself from hacking as in some studies or any difference was found on the bases of sex and in some studies very minor difference

was found. However, some studies confirm that there is very minor difference between both genders in terms of cyber victimization.^[9]

Another dimension which was covered in the current research was that the ratio of being cyberbullied is slightly more in the female it might be due to the lack of technical expertise in computer skills. In Pakistani culture, females are usually bound to remain at homes, and mostly females also know less about safety and security and the hacking of personal information. A previous research conducted by Gilkerson, 2012 also confirms the results of present research which stated that who spend time on social. According to Gilkerson, those who spend time on social networking and have less knowledge of safety and security they were more likely to be victim of cyberbullying. Moreover, in Pakistan males know more about safety and security on cyber world they know more about, information technology (IT) specialization, Hacking and Blogging because they have more easy and approachable access to the internet than females. In the west the trend is now change, and females are now came forward in the field of IT. However, in Pakistani culture, we're far behind them. It was one of the causes that females in our culture might be experience cyberbulling experiences more than males.

In present research ratio of males is slightly more who use >4 h on computer in a day than female. In Pakistani culture, males use more internets because they have more opportunities of the cyber world as they have access of networking in their workplaces. They can also go to cyber cafes for the internet surfing, and on the other hand, females have not that much access like they are not allowed to go at cyber cafes for the internet surfing. Both genders use internetworking, but the males ratio is slightly more than females. Previous findings also confirm the findings of present research as some researches revealed that only 9-20% of internet users in Europe are women, and consumers are more likely to be male, who are richer, more sophisticated, cultured, and younger apart from the rest of residents. In Japan and the Middle East female usage drops to <5% than man (Dobson, 1998).[5]

No doubt both bullying and cyberbullying both affect the personality of the victim. However, its found in a study that cyberbullying is more intense form of bullying. [9] Finding of the current research reveals that cyberbullying leaves more severe consequences on the victim than the old style bullying. Previous findings also confirm the result of the present study as according to Campbell, found that consequences of cyberbullying are more severe than old styled harassment. "Cyberbullying" leaves a number of consequences on the person's personality. It has been found that effects of cyberbullying are devastating such as suicidal ideation, anxiety, depression, substance abuse, and even sometimes

suicide.^[6] However, what makes the cyberbullying differ from old style bullying is that aggressor of virtual harassment is not having any fingerprints and they did not have any bodily properties like the aggressor of old style harassment have. And having virtual properties is one of the significant characteristics of virtual harassment. Incapability, to look at the actions and emotional state of the target also makes the aggressor more hyper to make the virtual harassment more intense.^[14]

Another dimension which was covered in the present research was that there is a significant difference found in both male and female who cyberbully someone. More number of males than females involved in cyberbully act. The previous finding also supports the research of current research as in the survey of Canadian school student it was found that more number of boys report they involve an act of cyberbullying than girls. [12] In which more number of males bully someone to whom they know personally. Moreover, more number of males than females bully opposite gender.

Limitation

The major limitation of the study was that sample of the study was not very large and also limited to just one city of Pakistan. The study population may not be representative of the entire Pakistani Asian students who experience cyberbullying.

CONCLUSION AND FUTURE SUGGESTIONS

On the whole, the current research reveals that there is a relationship between "cyberbullying" and "mental health problems" of the university students. Moreover, "cyberbullying" is a positive predictor of "mental health problems." Although results and statistical procedures revealed the high reliability and validity, additional research is needed on this phenomena to confirm the norms and use this scale as practical terms in Pakistan. This should be taken as an initial step toward the exploration of the expression of cyberbullying. Further researchers can use it to check the validity of this scale and also use it with the emotional behavioral problems, personality type, and with another dimension such as academic performance. Parental relationship and bonding with loved once can also be investigated with this phenomena.

REFERENCES

- Campbell MA. Cyber bullying: An old problem in a new guise. Aust J Guid Couns 2005;15:68-76.
- 2. Campbell MA, Butler D, Kift S. A school's duty to provide a safe learning environment: Does this involve cyberbullying. Aust N Z J Law Educ 2008;13:21-32.
- 3. Lawrence EC, Felson M. Social change and crime rate trends:

- A routine activity approach. Am Soc Rev 1979;44:588-605.
- 4. Charles E, Notar EC, Padgett S, Roden J. Cyberbullying: A review of the literature. Univ J Educ Res 2013;1:1-9.
- Dobson,1998. It's a man's Cyber world. Available from: http:// www.independent.co.uk/news/its-a-mans cyberworld-1151661.ht. [Last accessed on 2015 Aug 02].
- 6. Available from: www.lba.k12.nf.ca/cyberbullying/effects.htm [Last accessed on 2014 Sep 8]. Available from:www.academia. edu8529826/SAMPLE_3_. [Last accessed on 2018 Dec 5].
- 7. Gilkerson L. Bullying Statistics Facts about Cyberbullying; 2012. Available from: http://www.covenanteyes.com/2012/01/17/bullying-statistics-fast-facts-about-cyberbullying. [Last accessed on 2018 Dec 12].
- Gottfredson MR, Hirschi T. A General Theory of Crime. Stanford, CA: Stanford University Press; 1990.
- Hinduja S, Patchin JW. Cyberbullying: An exploratory analysis
 of factors related to offending and victimization. Deviant
 Behav 2008;29:129-56.
- Keel RO. Rational Choice and Deterrence Theory; 1997.
 Available from: http://www.umsl.edu/~rkeel/200/ratchoc.html.
 [Last accessed on 2018 Jul 27].
- Kokkinos MC, Antoniadou N, Dalara E, Koufogazou A, Papatziki A. Cyber-bullying, personality and coping among pre adolecents. Int J Cyber Behav Psychol Learn 2013;3:55-69.
- Li Q. Cyberbullying in schools: A research of gender differences. Sch Psychol Int 2006;27:1-14.
- Peeren S, Dooley J, Shaw T, Cross D. Bullying in school and cyberspace: Associations with depressive symptoms in Swiss and Australian adolescents. Child Adolesc Psychiatry Ment Health 2010;4:28-44.
- Mesch GS. Parental mediation, online activiteis, and cyberbullying. Cyber Psychol Behav 2009;12:387-93.
- O'Brien Niamh and Moules Tina (2010). The impact of cyberbullying on young people's mental health. Anglia Ruskin University. Project report, Chelmsford, Essex. Available from: URl, https://arro.anglia.ac.uk/702456/. [Last accessed on 18 Oct 18].
- Schneider SK, O'Donnell L, Stueve A, Coulter RW. Cyberbullying, school bullying, and psychological distress: A regional census of high school students. Am J Public Health 2012;102:171-7.
- Smith P, Mahdavi J, Caravolaho M, Tippett N. An Investigation into Cyberbullying, its Forms, Awaerness and Impact, and the Relationship between Age and Gender in Cyberbullying. London: A Report to the Anti-Bullying Alliance; 2006.
- Suler J. The online disinhibition effect. Cyber Psychol Behav 2004;7:321-6. Available from: http://www. truecenterpublishing.com/psycyber/disinhibit.html. [Last accessed on 2018 Oct 7].
- Veenstra S. Cyberbullying: An Explanatory Analysis. University
 of Leicester: Department of Criminology; 2009. Available
 from: http://www.cyren\jeugd.nl/files/Veenstra,%20S.%20
 (2011)%20Cyberbullying%20 %20an%20explanatory%20
 analysis.pdf. [Last accessed on 2014 Apr 10]

How to cite this article: Saeed M, Rizvi M, Li C. Disasters of Cyber World - A Question on Mental Health. Clin Res Psychol 2019;2(1):1-6.