RELATIONSHIP BETWEEN DIGITAL SELF-HARM AND USE OF SOCIAL MEDIA: AN EMPIRICAL STUDY

Prof. Dr. Sabir Ahmed, Dr. Dev Raj, and Sanam Tajjamul

ABSTRACT

International studies proved that deliberated self-harm is the common problem including Pakistan. Students or youth get information from internet about ways of suicide and involve bullying their selves. Digital self-harm has become one of the major problematic issues in the digital era and getting attention of scholars globally. So that to keep in mind, the current study is the inclusive empirical investigation on digital self-harm was analysis among students In Karachi, Pakistan. Results are showing that majority of students uses social media site on daily bases. Around 35% participant admitted that they injured or scratched themselves. Results also suggested that 6.7% of respondents anonymously posted something online to get attention from parents or peers and 6.7% to test their peers' friendship and 11.7% students were mentioned they posted violence related and 5.0% Hatred content on social media platforms. Finally, statistical tests did not find any significance associations between regular use of social media, deliberated and digital self-harm. It is recommended that in-depth research should conducted nationwide with large sample size in future research.

INTRODUCTION

Social media has become an integral part of youth's daily live, social scientists defined this chunk as "Generation Z", and "Generation Alpha"; the latter two are sometimes described as distinct "neo-digital natives" (Thomas, 2011; Takahashi, 2016), *"*digital natives*"* or "digital integrators" (McCrindle, 2015), *"*Net Generation", and the "Millennium generation" (Sandars, 2007), who born in digital-media atmosphere used cyber media, social games, please with movies, and participate in virtual world.

Pakistani youth also is affecting the boom of digital media and local scholars and journalists are considering as a hotcake for academic studies. According to Salman (2005) Pakistani youngsters are more likely immature personalities and emotionally volatile, generally unreliable and represents a major portion of the society who always consider the future of the country who generally defined as a period when a person ready to an active role as a fully responsible member of the society. The United Nations has recognized youth as of 15-24 years old. Officially, youth are people between 15-29 years old in Pakistan. Strasburg (2002) stated that adolescents are often categorized as a challenging and turbulence some group. A teen wants more independence, so that scholars labeled it "adolescent's egocentrism".

Research on Youth

The study of youth was played a critical role in anthropology in the first phase of the twentieth century. Scholars defined youth in various categories like adolescent, teenager, or young adult. The differences between research on adolescence and youth referred to factor's violence and sexuality (Bucholtz, 2002). Recently scholars have eagle eye on youth's online doings and measure impacts (Chau, 2010). Generation Y (born after 1979) main users of Internet globally. In a study about Internet consumption by youth described themselves as 'cyber geeks" and Internet dependent and very keen to use Internet for their activities.

A survey revealed that teenagers consumed more time on the Internet than watching T.V. Online world is vibrant social universe for young generation, and they heart of net communication (Montgonery et al., 2004). According to Maggiani (2012), "Gen Y is inherently more comfortable in digital world in terms of using social media sites (Steeves, 2012). Media Awareness Network (2005) conducted a study on proliferation of computers and Internet and found that Canadian youth have failed to differentiate between virtual and real world. 94% young people have Internet connection their homes, majority of students used social media daily. Social media permits teenagers to enjoyment which is some time dangerous for mental and physical health. Social media is an immense a part of many teens' lives (Viner, 2019). Young adults also use social media for leisure and self-expression which is created mental disorder and anxiety (Nesi et al., 2015). Frequent users of social media might be at heightened hazard for intellectual health troubles. Different studies additionally focused on link between heavy use of social media and downhearted or tension symptoms. Late nights' connectivity is

harmful for youth's health (Tayyeba & Riehm, 2019) including bad feelings, higher ranges of tension and sadness (Chou et al., 2012; Wang, 2017). Kross et al. (2013) discovered that older youth saw others' daily posts didn't enjoy on cyber world. Romer (2010) found that individual alterations were closely related with personality. Varghese et al. (2021) examined the association between use of technology, digital media and sleep-onset difficulties and found that in 15-year-olds difficulties were more frequent among youths with sophisticated use of electronic devices.

REVIEW OF THE LITERATURE

Digital Self-Harm is now considering the hidden side of adolescent online aggression. Pakistani youth has become intolerant and violent isolated and segregate from their own families. Social media and internet are affecting youth destructively in psychologically, political, and socially (Zaheer, 2018). Technology is considered as the king and human must be knowledgeable to control the king (Rani & Padmalosani, 2019). The term *Digital self-harm* came to light after a 14-year-old girl from England anonymously posted mean messages about herself on social media before committing suicide in 2013. A similar case involving a 15-year-old Texas girl occurred in 2016. Interpersonal problems, family struggles, domestic violence, relational urgings, and tension were associated with deliberate self-harm (Paiman et al., 2019).

Digital self-harm is a communal problem (Macey, 2018). A study conducted in 2014 discovered the linked between Cyber bullying and self-harm among the youth in Singapore. Psychologists and therapists well-thought-out self-harm in the situation as a trauma or distress (Sin, 2016). Same as, both cyber victim and cyberbully-victim clusters reported significantly higher frequency of self-harm activities, suicidal feelings and attempts more likely to the non-involved group (Ong et al., 2020). A study identified 11% of Canadians between ages 15 and 24 as having behavior commonly associated with depression and involved in suicide attempts used social media (Skinner, 2017). US researchers has explored this element of self-harm, called "automated positive reinforcement" (APR). Results suggested that young felt satisfaction and hopes after harming themselves. Moreover, social media encourage thoughts of self-damage, any episodes of self-harm (Jarret, 2013). Hinduja (2017) suggested that anonymous hateful messages and posts against oneself well-defined as digital self-harm. during their lifetime. Self-abuse and self-bullying are ever more dangerous offline and online (Preece, 2015). Moreno et al. (2015) conducted a study on self-

harm related content posted on Instagram and stated that youngsters, now using Instagram as major social networking sites for sending and posting anonymous hateful and harmed messages.

Suicide rate in students have increased in Pakistan during past few years and despite the fact, official statistics are still unknown. There are no official data available on self-harm and suicide in Pakistan. Cyber victimization was specific throughout gender and its mental effect was more reported for women than boys. Kanwal and Jami (2019) inferences have been debated in Pakistani background. One Pakistani student, Naila Rind was committed suicide, she was blackmailed on social media. (Dad & Khan, 2017). Obscene images or clips are associated with vanity, bent of self-harm, and get attention of others. Moreover, fierce images mostly post because of on vengeance, low moral values, and outcome of pleasure in mocking or defaming another person in Pakistan (Butt, 2020). Virtual self-harm as "nameless on-line posting, sending, or otherwise sharing of hurtful content approximately oneself." digital self-damage, more clearly placed, is self-cyberbullying. virtual self-damage has allegedly been connected to 2 high-profile bullying instances that ended within the self-bullying teenagers committing suicide (Birdsong, 2018). Youth are anonymously bullying and trolling themselves online (Winterman, 2013).

Zaffar et al. (2015) revealed that there is a strong like between Facebook use, nervousness and hopelessness in Bahawalpur Zone, Pakistan. Dr. Anila Malik (2003) concluded that shy people typically, not interested in make new friends, have social anxiety, and feel self-conscious. Nixon (2014) exposed a durable linked between bullying maltreatment, negative feelings, and digital self-harm among youth who felt pleasure after harming themselves. Digital self-harm in adolescents is a major concern in India where social media users found involve in sexting, profanity, sexually explicit material, sexual harassment (Memon et al., 2018). Pater and Mynatt (2017) emphasized that digital self-damage is an exercise of virtual aggression that's influences some risky sports on social media structures. digital self-damage isn't always limited to posting facts associated with hurting self; it's also demeaned oneself, or display oneself in a horrific mild, or cyberbullying oneself. (Maloney, 2014). Semenza et al. (2021) investigated the association between sleep duration, depression, and engagement in a new cyber behavior, digital self-harm, among youngsters. The younger victim is more likely to take to self-harm or live with negative thoughts. School behavioral problems have closed linked with bullies and self-harm and the bully-victims and self-harm

in Norway (Myklestad & Straiton, 2021).

Teenagers are anonymously posting cruel remarks and cyberbullied about themselves on social media health (Pater & Mynatt, 2017), this is youth-generated problematic content has been discussed widely in around the world (Boyd, Ryan, & Leavitt; 2010). According to Chancellor (2016) self-harm is the infliction of pain or injury onto oneself is called "thinspiration" Results suggested that annual ratios was increased (BBC Report, 2017). Heavy use of Internet and social media has linked with practice self-injury. The Internet has some complaints about self-injurers because verifying anonymity online comforts people who struggle with shyness, isolation, and depression (McKenna & Bargh, 2000; Whitlock et al., 2006). Winterman (2013) reported that Internet trolling is on the increase; 9% had anonymously cyberbullied themselves13% of boys had done it and 8% of girls. This is emerged as a new phenomenon of self-aggression, digital self-damage (Fraga, 2018). Concerns of researchers and media experts and called it 'toxic digital world' Tallulah Wilson, who killed herself in 2012, was stuck up in a "toxic virtual word", in line with her mom, while the parents of Sasha Steadman, a sixteen-yr-vintage who died from a suspected drug overdose in January after searching at self-damage information on websites (Topping, 2014).

Digital Self-Harm is a comparatively new term and is an alarming new trend. The term Digital Self-Harm is used interchangeably with Virtual Self-Harm, Cyber Self-Harm, and Self-Cyberbullying. Volpe et al. (2015) used term "Problematic Internet Use" (PIU), many different kinds of injurious use of Internet, "Cyber-suicide" refers to self-inflicted death promoted by websites that provide informative ways and encourage people to perform suicidal attempts (Kim et al., 2006). Self-injurious behavior (SIB) refers to the direct and deliberate damage of one's own body surface without suicidal intent (Claes & Vandereycken, 2007). The Internet offers an immeasurable platform for the depiction of deadly events (Carolina & Klein, 2012). Sakarya et al. (2013) studied suicide related information searching behavior and identified few key words such as suicidal phrases i.e., "suicide methods," "painless suicide," "guaranteed suicide," "killing yourself" and "how can I die", in the Google search engine. Biddle (2012) conducted an in-depth study and found that internet promote suicidal views. Durkee et al. (2011) reported that internet is the responsible for both physical and cognitive anguish. Brack and Caltabiano (2014) found that cyberbullying has become a net- culture and largest group of respondents (62%) identified was victim of cyberbullying. Patchin & Hinduja (2017) noticed that around 6% of youth

was posted somewhat online about themselves where males were pointedly more likely involved than female respondents. Kyung, Lim and Lee (2021) investigative that outcome of broadband Internet on suicide phenomena. Marchant and Hawton et al. (2021) conducted a meta-analysis explored that viewing images as an alternative to self-harm and pictorial pictures'-based posts are boost self-harm among young social media users. Self-harm and suicide are corelated with disorders of the self and reestablish the borderline between mind and body, and to communicate and tenacity childhood trauma (Yakeley & Burbridge-James, 2018). Past studies proved that Internet and social media can stimulus suicide-related behavior in vulnerable groups belong to virtual communities (David, Jennifer, & Fairall, 2012). Evidence showed that self-harming youth are more active in social networking than other counterparts who did not engage in self-injury activities (Memon et al., 2018).

Oksanen et al. (2016) examined the harmony in eating syndromes, self-injury, and suicide among American, British, German, and Finnish social media users. Analysis of the retrieval results provides a natural and vivid indication of suicide-related information that can be accessed by the average Romanian-speaking user (Marhana et al., 2012). Yang et al. (2020) studied the gender differences in Non-Suicidal Self-Injury (NSSI) behaviors and attitudes toward suicide among Chinese youth and analyzes the impact of the frequent use of the Internet on these dynamics among young people of the opposite sex. Results suggested that internet promote risk of self-harm, suicidal ideation, and depression (Daine, 2013). We can recognize NSSI the "next teen disorder" (Welsh, 2004). Researchers are interested in the Internet in It is often very helpful or even prevent suicide. Attempts to determine the influence of the Internet on suicidal behavior. It is difficult because of the indirect and complex connection between Internet use and suicide (Luxton et al., 2012). Research indicates that the internet and social media are double edged swords and can provide both benefits and challenges (Robinson et al., 2016). Internet use was linked to lower levels of suicidal thoughts directly and indirectly and reducing stress in a study found that Overall, 6% of New Zealand teens were involved in digital self-harm regularly more than once (Pacheco et al., 2019). Boyd (2010) first time uses term *digital self-harm*. Englander (2011) studied this type of online behavior.

One study concluded internet is major part of digital life. (Siddhartha et al., 2020). Students who heavily use social media love get more likes and they are very for this (Vogel, 2014). Thus, social media is used both become selfish

and fanatic for construction and destruction purpose for people from different walks of life (Rani & Padmalosani, 2019). Media was inversely correlated with self-reported satisfaction, life pleasure and self-esteem (Kusuma, 2020). Such as Cacliappo et al. (2009) discovered that inferior social influences boost the anxiety in large social networks. Self-esteem is not linked with the frequency with which students use social media or the extent of popularity or reputation of the users (Siebert, 2019; Rostam, 2020). Sifferlin (2013) reported that frequent users of Facebook were dissatisfied with their lives. A Pew studies center survey (2018) suggested that 97% respondents were using a social media platform at time of study. Use of media was contrariwise correlated with self-satisfaction, pleasure, entertainment, and self-esteem (Kusuma, 2020).

Social networking sites promote self-harm deportment and suicidal ideation in vulnerable adolescents (Memon et al., 2018). Social media's influence on youth suicidal risk and students become victims more often than anyone else (Rani & Padmalosani, 2019). Social media influences youngster's lifestyles and it is helping them create own world of dreams. Sachdev (2013) found that emergence of social media has great impact on the Indian youth, who had negative online experience in adult age. Jain et al. (2012) conducted a study about role of social media in changing the mindset of youth on social issues in India. Some findings proved that social media has played a magnificent role to change the mind set of Indian youth.

According to Open-Source Center (2010) digital media just like a *Game changer*. One study also found that boys were more likely downloaded prone content (MacAfee, 2010). Facebook usage, uploading and sharing information may reduce the loneliness and build social connections. Numerous academics suggested that internet has created a "lonely crowd" in cyber space (Deters & Mehl, 2012). Gilbert (2009) suggested that digital life of youth is producing overload information which affected their minds. University of Michigan's study concluded that use Facebook is the major reason of loneliness (Kross, 2013). Basch and Damour (2014) revealed spending extra time on social media is a major cause of anxiety in girls than boys. Bas (2014) noticed that males were more likely shyer than female students' due social media. According to BBC News (2010) more women than men reporting loneliness. Labrague (2014) explored that heavy Philippines Facebook users have sophisticated level of strain. young adults who use social media web sites for 2 hours or additional substantially more likely to be afflicted by terrible mental fitness, mental misery, and suicidal thoughts (Gregoire, 2015).

Conceptual Framework

These evidences proved that social media users have serious mental issues which is lead to digital self-harm and promote negative thoughts in younger generation. Following conceptual framework is proposed for current study.
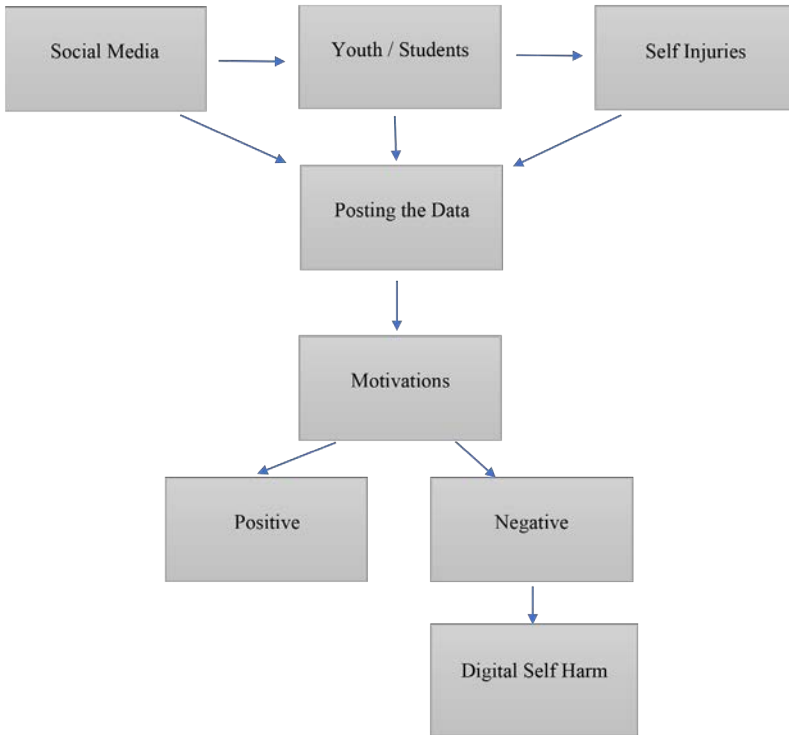
METHODOLOGY

According to Patchin and Hinduja to digital self-harm is a new problem that demands additional scholarly attention. This study is the continuation of that recommendation. In this study, I use survey method and random sampling. Participants were media students ($N = 120$) drafted from 5 major universities and Institutes (Greenwich University, Federal Urdu University, AIMS Media Institute, University of Karachi, Indus Valley Art & Design & Sindh Madressatul-Islam University) of Karachi. Data was collected through Google Doc online. Researchers selected the WhatsApp groups of the media and design students of the above said universities. Data Analysis and Interpretation have been done on SPSS 26. Firstly, a file from Google doc was imported in *.csv format then converted into excel form using software MS-Excel 2018. Finally, that file was imported into SPSS for process the data analysis. 120 respondents were the final sample size. The primary data

was collected by the researchers during August to October 2021. Researchers used age, gender, income, and personality type as demographic variables.

Research Questions

Q1: What is association between the deliberate self-harm and digital self-harm?

Q2: What is the relationship between social media usage amount and digital self-harm?

Research Hypotheses

H_1: There is an association the deliberate self-harm and digital self-harm

H_{01}: There is no association between the deliberate self-harm and digital self-harm

H_2: There is the strong relationship between social media usage amount and digital self-harm

H_{02}: There is no relationship between social media usage amount and digital self-harm

RESULTS

Table 1: Researcher asked, have you ever injured /Scratch yourself?

Results are showing that 28.3 % respondents admitted that they were involved deliberate self-harm.

Responses	%
Yes	28.3
No	63.3
Maybe	8.3
Total	100.0

Table 2: We asked, If Yes, why did you perform this act?

And found a very interesting finding, 13.3 % said that they harm because of To feel some pleasure and 6.7 % To avoid or suppress negative feelings

Responses	%
To avoid being with people	4.2
To avoid or suppress negative feelings	6.7
To avoid or suppress painful images or memories	2.5
To avoid or suppress suicidal thoughts	0.8
To feel some pleasure	13.3
To get attention from others	1.7
To punish myself	9.2
To show others how strong I am	2.5

Table 3: Results are showing that mostly students (92.5 %) use social media on daily.

Social media usage	%
Daily	92.5
Once a fortnight	.8
Once a month	.8
Once a week	1.7
Rarely	1.7
A few times a week	2.5

Table 4: As shown in Table 4, 6.7% of students in our sample reported that they had "anonymously posted something online to get attention from parents or peers and 6.7 % to test their peers' friendship. A good no of respondent 33.3 % said that they posted the data because of fun 31.7 % for gain a sense of control.

Main motivations for Social Media Posting	%
to get attention from parents or peers	6.7
to test their peers' friendship	6.7
to punish oneself	1.2
to gain a sense of control	31.7
to be funny	33.3
Multiple Reasons	20.4

Table 5: Results are showing that 11.7% students were mentioned they posted violence related and 5.0 % Hatred content on Social media platforms.

Nature of Content do usually share on social media	%
Jokes	33.3
Celebrations related content	17.5
Selfies	11.7
Violence related content	8.3
Hatred content	5.0
Entertaining	62.5
Multiple Reasons	15.4

Table 6: In this table investigator discussed Perceived motivations for digital self-harm.

Results suggested that self-bullying in common problem in Karachi's youth, 45% respondents post content when to maybe make others laugh as a

joke. More important is 16.7 % students said that they posted anonymously online content about themselves when they were very sad and upset.

Main motivations for digital self-harm	%
When just wanted me hurt	2.5
When feel worse	9.2
When make fun of myself	12.5
When I was bored	35.8
When to maybe make others laugh as a joke	45.0
When I was very sad and upset	16.7
When someone ignore me	4.2
When nobody would listen or talk to me	5
When needed attention from others	13.3
Other reasons	9.2

HYPOTHESIS TESTING

H_1: There is an association the deliberate self-harm and digital self-harm

H_{01}: There is no association between the deliberate self-harm and digital self-harm

Table 7: Have you ever injured /Scratch yourself? * How frequently do you use social networking media applications? Such as, Facebook, Instagram, YouTube, etc. (Select only One) Cross tabulation

Have you ever injured /Scratch yourself ?		How frequently do you use social networking media applications? Such as, Facebook, Instagram, YouTube, (Select only One)						
		A few times a week	Daily	Once a fortnight	Once a month	Once a week	Rarely	Total
Maybe	Count	0	10	0	0	0	0	10
	% within How frequently do you use social networking media applications?	0.0%	9.0%	0.0%	0.0%	0.0%	0.0%	8.3%
No	Count	3	68	0	1	2	2	76
	% within How frequently do you use social networking media applications?	100.0%	61.3%	0.0%	100.0%	100.0%	100.0%	63.3%
Yes	Count	0	33	1	0	0	0	34
	% within How frequently do you use social networking media applications?	0.0%	29.7%	100.0%	0.0%	0.0%	0.0%	28.3%
Total	Count	3	111	1	1	2	2	120
	% within How frequently do you use social networking media applications?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.551[a]	10	.690
Likelihood Ratio	10.041	10	.437
N of Valid Cases	120		

a. 15 cells (83.3%) have expected count less than 5. The minimum expected count is .08.

H_2: There is the strong relationship between social media usage amount and digital self-harm

H_{02}: There is no relationship between social media usage amount and digital self-harm ($X^2 <= 20.551^a$, $p = .690$)

What type of content do usually share on social media? How frequently do you use social networking media applications? Such as, Facebook, Instagram, YouTube, Crosstabulation (Crosstab is too large unable to fitted).

Table 9: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	186.833ᵃ	235	.991
Likelihood Ratio	52.586	235	1.000
N of Valid Cases	120		

a. 283 cells (98.3%) have expected count less than 5. The minimum expected count is .01.

No association was found harm ($X^2 <= 186.833^a$, $p = .991$) between social media usage amount and digital self-harm Results are insignificant. So we accepted our null hypothesis.

DISCUSSION

International studies proved that deliberated self-harm is the common problem including Pakistan. Students or youth get information from internet about ways of suicide and involve bullying their selves. Digital self-harm has become one of the major problematic issue in the digital era and getting attention of scholars globally. According to Patchin and Hinduja (2017) Digital self-harm is a new problem that demands additional scholarly attention. Whereas, between 15 to 35 people end their lives in Pakistan every day (Rehman, 2020). Digital self-harm first got communal consideration with the suicide of 14-year-old Hannah Smith in 2013. In November 2016, a 15-year-old girl from Texas took her own life after apparently posting anonymous comments toward herself saying she was "ugly" and "should kill herself." Similarly, Naila Rind was committed suicide after exploitation and blackmail on social media who posted her pictures on FB. Police officials say this lecturer in a private school at Jamshoro, was blackmailing her pictures and videos for three months (Dad & Khan, 2017).

These examples are showing that cyber bullying themselves in an important problem among youth but get insignificant academic attention globally. So that to keep in mind, the current study is the first comprehensive empirical inquiry of this behavior was analysis among students in Karachi, Pakistan.

Results are showing that majority of students uses social media site on daily bases. Around 35% participant admitted that they injured or scratched themselves. Results also proved that youth. As well as 6.7% of students in our sample reported that they had "anonymously posted something online to get attention from parents or peers and 6.7% to test their peers' friendship and 11.7% students were mentioned they posted violence related and 5.0% Hatred content on Social media platforms. Finally, statistical tests did not find any significance associations between regular use of social media, deliberated and digital self-harm. It is recommended that in-depth research should conducted nationwide with large sample size in future research

CONCLUSION

It is proved that 28.3% respondents admitted that they were involved deliberate self-harm and 6.7% of students anonymously posted something online to get attention to other. These results are considerable. So, It is recommended that in-depth research should conducted nationwide with large sample size in future research and select nationwide sample.

REFERENCES

Bas, G. (2010). An Introduction of relationship between shyness and loneliness, levels of elementary students in Turkish sample. *International Online Journal of Educational Science, 2(2)*, 419-440.

Basch, S., & Damour, L. (2014). *Girls and Digital technology.* Internet, Laurel School's Center for Research on Girls. http://www.laurelschool. org/uploaded/programs/crg/crg_downloads/CRG_DIGITAL_ TECHNOLOGY_.pdf

BBC Report. (2017). 'Steep rise' in self-harm among teenage girls. https:// www.bbc.com/news/health-41671060

Biddle, J. (2012). *Study to explore suicide-related Internet use by young adults and the impact of this on suicidal behavior, Avon Longitudinal Study of Parents and Children. (Research proposal system, University of Bristol).* https://journals.sagepub.com/doi/ full/10.1177/2055207616629862

Biernesser, C., Sewall, C.J.R., Brent, D., Bear, T., Mair, C., & Trauth, J. (2020). Social Media Use and Deliberate Self-Harm Among Youth. A Systematized Narrative Review. *Child Youth Serv Rev. 116, 105054.* doi: 10.1016/j.childyouth.2020.105054. Epub 2020 May 29. PMID: 32773916; PMCID: PMC7413131.

Birdsong, T. (2018). *Study: Digital Self-Harm Among Teens Real; Here's What Parents Need to Know.* https://www.mcafee.com/blogs/ family-safety/study-digital-self-harm-among-teens-real-heres-what-parents-need-to-know/

Boyd, D. (2010). *Digital Self-Harm and Other Acts of Self-Harassment.* https://www.zephoria.org/thoughts/archives/2010/12/07/digital-self-harm-and-other-acts-of-self-harassment.html

Boyd, D., Ryan, J., & Leavitt, A. (2010). Pro-Self-Harm and the Visibility of Youth Generated Problematic Content. *Journal of Law and Policy, 7(1),* 1-32.

Brack, K., & Caltabiano, N. (2014). Cyberbullying and self-esteem in Australian adults. Cyberpsychology. *Journal of Psychosocial Research on Cyberspace, 8(2),* Article 7. https://doi.org/10.5817/ CP2014-2-7

Bucholtz, M. (2002). Youth and Cultural Practice. *Annual Review of Anthropology,* 31, 525-552.

Butt, S. (2020). Cyber harassment cases double in a year, Internet usage in country up 200% during pandemic. *Express Tribune.* https://tribune.com.pk/story/2274414/cyber-harassment-cases-double-in-a-year

Cacilappo et al. (2009). Here is the crowd: the structure of Spread of Loneliness in a large social network. *Journal of Personality and social Psychology, 97(6),* 977-991.

Carolina, A., & Klein, M.D. (2012). Live Deaths Online: Internet Suicide and Lethality. *The Journal of the American Academy of Psychiatry, and the Law, 40,* 530-536.

Chancellor, S., Pater, J. A., Clear, T. A., Gilbert, E., & De Choudhury, M. (2016, February). # thyghg app: Instagram Content Moderation and Lexical Variation in Pro-Eating Disorder Communities. *In Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing (pp. 1199-1211).* ACM.

Chau, C. (2010). YouTube as a Participating Culture, New direction for Youth, Development, No. 128. *Wiley periodicals Inc.* 65-71. doi: 10 1002/xd.376.

Chou et al. (2012). "They are happier and having better lives than I am": The impact of using Facebook on perceptions of others' lives. *Cyberpsychology, Behavior and Social Networking.* doi:10.1089/cyber.2011.0324.

Claes, L., & Vandereycken, W. (2007). The Self-Injury Questionnaire-Treatment Related (SIQ-TR): Construction, reliability, and validity in a sample of female eating disorder patients. *In P.M. Goldfarb (Ed.), Psychological Tests and Testing Research Trends (pp. 111-139).* New York: Nova Science Publishers.

Dad, N., & Khan, S. (2017). Naila Rind killed herself because Pakistan's cybercrime laws failed. *Daily Dawn.* https://www.dawn.com/news/1306976

Daine, K., Hawton, K., Singaravelu, V., Stewart, A., Simkin, S. et al. (2013). *The Power of the Web: A Systematic Review of Studies of the Influence of the Internet on Self-Harm and Suicide in Young People. PLo S ONE 8(10), e77555.* doi:10.1371/journal.pone.0077555

Deters, F.G., & Mehl, M.R. (2012). Does Posting Facebook status Updates increased or decreased Loneliness? An Online Social Networking Experiment. *Journal of Social psychology and Personality Sciences, 1(1),* 1-8.

Durkee, T., Hadlaczky, G., & Westerlund, M.C.V. (2011). Internet pathways in suicidality: A review of the evidence. *International Journal of Environmental Research and Public Health, 8,* 3938-3952.

Englander, E. (2012). Digital Self-Harm: Frequency, Type, Motivations, and Outcomes. *MARC Research Reports. Paper 5.* http://vc.bridgew. edu/marc_reports/5

Foster, A. (2021). *The prevalence of digital self-harm among adolescents.* https://www.nationalelfservice.net/mental-health/self-harm/the-prevalence-of-digital-self-harm-among-adolescents/

Fraga, J. (2018). When Teens Cyberbully Themselves, Shots. *Health News from NPR.* https://www.npr.org/ Sections/Health-Shots /2018/04/21/604073315/When-Teens-Cyberbully themselves

Funnell, N. (2013). Digital self-harm: teens tap out an online cry for help. *The Sunday Morning Herald.* https://www.smh.com.au/opinion/ digital-self-harm-teens-tap-out-an-online-cry-for-help-20130819-2s7av.html

Francis, T., & Hoefel, F. (2021). 'True Gen': Generation Z and its implications for companies. https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/true-gen-generation-z-and-its-implications-for-companies

Gilbert, P. (2009). *The Compassionate mind.* London: Constable and Robinson Ltd.

Gregoire, C. (2015). *Heavy Social Media Use Linked with Mental Health Issues in Teens, more than two hours of use per day can spell trouble.* http://www.huffingtonpost.com/entry/social-media-mental-health_55b129d9e4b08f57d5d3eedf

Hetrick, S. E., Serasinghe, A., Anglin, K., Hart, L., Morgan, A., & Robinson, J. (2020). Understanding the Needs of Young People Who Engage in Self-Harm: A Qualitative Investigation. *Front Psychol., 10(10),* 2916. doi: 10.3389/fpsyg.2019.02916. PMID: 31998182; PMCID: PMC6968776.

Hoge et al. (2017). Digital media, anxiety, and depression in children. *Pediatrics.* doi:10.1542/peds.2016-1758G.

Husain, N., Barbara, T., & Hamirani, M. (2014). Brief psychological intervention after self-harm: Randomized controlled trial from Pakistan. *The British Journal of Psychiatry: The Journal of Mental Science, 20(4),* 1-9. DOI:10.1192/bjp.bp.113.138370

Jain et al. (2012). Impact of Social Networking Sites in The Changing Mind Set of Youth on Social Issues: A Study of Delhi. *NCR Youth Journal of Arts, Science and Commerce, 2(2)*, 1-5.

Janis, W., Wendy, L., & Karen, C. (2007). The Internet and self-injury: What psychotherapists should know. *Journal of Clinical Psychology, 7(1).*

Jarret, C. (2013). What are teens hoping to feel when they self-harm? *Research Digest.* https://digest.bps.org.uk/2013/12/17/what-are-teens-hoping-to-feel-when-they-self-harm/

John, A., Glendenning, A.C., Marchant, A., Montgomery, P., Stewart, A., Wood, S., Lloyd, K., & Hawton, K. (2018). Self-Harm, Suicidal Behaviors, and Cyberbullying in Children and Young People. *Systematic Review, 20(4),* e129.

Jun, J., & Kim, M. (2017). What Accounts for the Relationship Between Internet Use and Suicidal Ideation of Korean Older Adults? A Mediation Analysis. *Journals of Gerontology: Social Sciences, 72(5),* 846-855.

Kanwal, H., & Jami, H. (2019). Exploring Modes, Strategies, and Psychosocial Consequences of Cyberbullying Perpetration and Victimization Among University Students. *Pakistan Journal of Psychological Research, 34(4),* 787-817. https://doi.org/10.33824/PJPR.2019.34.4.43

Keles, B., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth, 25 (1)*, 79-93. DOI: 10.1080/02673843.2019.1590851

Kemp, C. (2017). Digital self-harm a growing phenomenon. *APP News & Journal.* https://www.aappublications.org/news/2017/12/14/DigitalHarm121417

Kim, K., Ryu, E., Chon, M.Y., Yeun, E-J., Choi, S-Y., Seo, J-S., & Nam,

B-W. (2006). Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: a questionnaire survey. *International Journal of Nursing Studies, 43(2),* 185-92.

Kraftl, P. (eds). (n.d.). *Children's Emotions in Policy and Practice. Studies in Childhood and Youth.* London: Palgrave Macmillan. https://doi.org/10.1057/9781137415608_9

Kross, E., Verduyn, P., Demiralp, E., Park, J., & Lee, D.S. (2013). Facebook Use Predicts Declines in Subjective Well-Being in Young Adults. *PLoS ONE 8(8),* e69841. doi: 10.1371/journal.pone.0069841.

Kusuma, A. (2020). *Impact of Social Media on Youth.* https://www.researchgate.net/publication/347437746_Impact_of_Social_Media_on_Youth/citation/download

Kyung, N., Lim, S., & Lee, B. (2021). Digital self-harm: an empirical analysis of the effects of broadband adoption on suicide. *Internet Research, 31(4)*, 1444-1462.

Labrague, L.J. (2014). Face book use and adolescent emotional states of depression, anxiety and stress. *Health Science Journal, 8(1)*, 80-89.

Luxton, D., June, J. D., & Fairall, M. (2012). Social Media and Suicide: A Public Health Perspective. *American Journal of Public Health, 102(52),* 195-200.

MacAfee. (2010). *What Do You Really Know about Yours Teen's Online Lives, The Secret Online Lives of Teens.* Santa Clara, CA: MacAfee, Inc. 1-10. www.Mcafee.com

Macey, A. (2018). *This is the Most Shocking Form of Cyberbullying Currently Affecting Teenagers.* https://www.brit.co/digital-self-harm-cyberbulling-teenagers

Maggiani, R. (2012). Social Media and its Effects on Communication. *Solari Communication, position paper* (www.solan.net).

Malik, A.A. (2003). Shyness and is relation to loneliness and depression. *Journal of Social Sciences and Humanities*. 108-115.

Maloney, J., Pfuhlmann, B., Arensman, E., Coffey, C., Gusmão, R., & Poštuvan, V. (2014). How to Adjust Media Recommendations on Reporting Suicidal Behavior to New Media Developments. *Arch Suicide Res, 18,* 156–69.

Marchant, A., Hawton, K., Burns, L., Stewart, A., & John, A. (2021). Impact of Web-Based Sharing and Viewing of Self-Harm-Related Videos and Photographs on Young People: Systematic Review. *J Med Internet, 23(3),* e18048. doi: 10.2196/18048. PMID: 33739289; PMCID: PMC8074996.

McCrindle. (2015). *Gen Z and Gen Alpha Infographic Update.* McCrindle.

McKenna, K. Y. A., & Bargh, J. A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology. *Personality and Social Psychology Review, 4,* 57–75.

Media Awareness Network. (2005). Youth online and at-Risk Radiation Facilitated by the Internet. *Royal Canadian Mounted police, 7.*

Meldrum, R., Patchin, J., Young, J., & Hinduja, S. (2020). Bullying victimization, negative emotions, and digital self-harm: Testing a theoretical model of indirect effects. *Deviant Behavior,* 1-19. doi:10.1080/01639625.2020.1833380.

Memon, A.M., Sharma, S.G., Mohite, S.S., & Jain, S. (2018). The role of online social networking on deliberate self-harm and suicidality in adolescents: A systematized review of literature. *Indian Journal of Psychiatry, 60,* 384. https://doi.org/10.4103/psychiatry. IndianJPsychiatry_414_17

Nilsson, M. G, Pepelasis, T., & Ioannou, M. (2019). Understanding the link between Sextortion and Suicide. *International Journal of Cyber Criminology, 13(1),* 55–69. DOI: 10.5281/zenodo.3402357

Montgonery et al. (2004). *Youth as E-citizens: Engaging the Digital Generation.* Center for Social Media, School of Communication (ASOC), American University. www.centerforsocialmedia.org/ eatzans/youth report.pdf

Moreno, M.A., Ton, E. T., Selkie, E.Y., & Evans, Y. (2015). Secret Society 123: Understanding the Language of Self-Harm on Instagram. *Journal of Adolescent Health, 58(1),* 78–84. https://doi.org/10.1016/j. jadohealth.2015.09.015

Myklestad, I., & Straiton, M. (2021). The relationship between self-harm and bullying behavior: Results from a population based study of adolescents. *BMC Public Health, 21*, 524. https://doi.org/10.1186/ s12889-021-10555-9

National Centre for Rural Development (NCRD). (2006). *Country Report on Youth in Development - Pakistan 2005-06.* National Centre for Rural Development (NCRD), Ministry of Education & Trainings Government of Pakistan.

Nixon, C.L. (2014). Current perspectives: The impact of cyberbullying on adolescent health. *Adolescent Health, Medicine and Therapeutics, 5,* 143–158. http://dx.doi.org/10.2147/AHMT.S36456

Oksanen, A., Näsi, M., Minkkinen, J., Keipi, T., Kaakinen, M., & Räsänen, P. (2016). Young people who access harm-advocating online content: A four-country survey. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 10(2),* Article 6. https://doi.org/10.5817/CP2016-2-6

Ong et al. (2020). *Association of cyberbullying with psychosocial difficulties, self-harm and helping-seeking behaviors: a cross section study in Singapore adolescents.* Research Square, https://www.researchsquare.com/article/rs-10995/v1

Pacheco, E., Melhuish, N., & Jandy, F.J. (2019). Digital Self-Harm: Prevalence, Motivations and Outcomes for Teens Who Cyberbully Themselves Prepared. *Digital Self-Harm Report*. Netsafe, Providing free online safety advice in New Zealand.

Paiman, A., Khan, M., Ali, T., Asad, N., & Iqbal, A. (2019). Psychosocial factors of deliberate self-harm in Afghanistan: a hospital based, matched case-control study. *East Mediteranean Health Journal, 25(11)*, 798–805. https://doi.org/10.26719/emhj.19.021

Patchin, W., & Hinduja, S. (2017). Digital Self-Harm Among Adolescents. *Journal of Adolescent Health, 61(6)*, 761-766.

Patchin, W. J., & Hinduja, S. (2020). Sextortion Among Adolescents: Results from a National Survey of U.S. Youth. *Sexual Abuse, 32(1),* 30–54.

Pater, J., & Mynatt, E. (2017). Defining Digital Self-Harm. *In Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (pp. 1501-1513)*. ACM.

Patton, D., Hong, J., Ranney, M., Patel, S., Kelley, C., Eschmann, R., & Washington, T. (2014). Social media as a vector for youth violence: A review of the literature. *Computers in Human Behavior, 35,* 548-553. doi: 10.1016/j.chb.2014.02.043

Pew Research Center. (2018). *Teens, Social Media, and Technology.* https://www.pewresearch.org/internet/2018/05/31/teens-social-media-technology-2018/PMC8074996.

Marhana, A., Săucana, D., Popaa, C., & Danciua, B. (2012). Searching Internet: A Report on Accessibility, Nature, and Quality of Suicide-Related Information. *Social and Behavioral Sciences 33,* 373–377.

Preece, T. (2015). Social Suicide: A Digital Context for Self-Harm and Suicidal Ideation. In *Blazek M. and Kraftl P. (eds) Children's Emotions in Policy and Practice. Studies in Childhood and Youth.* London: Palgrave Macmillan, https://doi.org/10.1057/9781137415608_9

Purington, A., & Whitlock, J. (2010). Non-Suicidal Self-Injury in the Media. *The Prevention Researcher, 17(1)*, 11-13.

Rani, P. U., & Padmalosani. (2019). Impact of social media on youth. *Int. J. Innov. Technol. Explor. Eng., 8(11)* Special Issue, 786–787. doi: 10.35940/ijitee.K1138.09811S19

Rehman, A., & Haque, J. (2020). Pakistan's silent suicide problem. https://www.dawn.com/news/1494208

Robinson, J., & Thorn, P. (2018). Developing guidelines to help young people communicate safely about suicide on social media: A Delphi study. *PLoS One. 13(11)*, e0206584. The #chatsafe project.

Romer, D. (2010). Adolescent Risk Taking, Impulsivity, and Brain Development: Implications for Prevention. *Journal of Developmental Psychology, 52(3),* 263–276. doi:10.1002/dev.20442.

Rostam, F. A. (2020). *The negative impact of social media on youth.* https://www.academia.edu/41519687/THE_NEGATIVE_IMPACT_OF_SOCIAL_MEDIA_ON_YOUTH

Sachdev, R. (2013). *Impact of The Social Networking Site (SNS) on the Youth of India. A Bird's Eye View, A Research Paper?* (Thesis submitted to Collage of Management Studies), Kanpur (UP), India.

Sakarya, D., Güneş, C., & Sakarya, A. (2013). Googling suicide: evaluation of websites according to the content associated with suicide. *Turkish Journal of Psychiatry, 24(1),* 44-8.

Salman, A. (2005). *Alternative Youth Policy in Pakistan.* Gujranwala, Pakistan: Bargard Publisher.

Sandars, J., & Morrison, C. (2007). What is the Net Generation? The challenge for future medical education. *Med Teach., 29(2-3),* 85-88. doi: 10.1080/01421590601176380. PMID: 17701615.

Semenza, D.C., Meldrum, R.C., Testa, A., & Jackson, D.B. (2021). Sleep duration, depressive symptoms, and digital self-harm among adolescents. *Child Adolesc Ment Health.* https://doi.org/10.1111/camh.12457

Shakil, M. (2019). A Qualitative Analysis of Suicides Committed by the Students in Pakistan. *Pakistan Journal of Medical Research, 1,* 35-40.

Shekhani, S.S., Perveen, S., & Hashmi, D.S. (2018). Suicide and deliberate self-harm in Pakistan: A scoping review. *BMC Psychiatry 18(44).* https://doi.org/10.1186/s12888-017-1586-6

Siddhartha, S., Adil, A.H., Mulla, M., Mulla, M., Sayed, F.R., Singh, K.S., Tripathi, Sowmya, R., & Eusufzai, S.Z. (2020). Usage of Social Media among Undergraduate University Students. *European Journal of Molecular & Clinical Medicine,7(8),*1605-1617.

Siebert, M. D. (2019). The Silent Classroom: The Impact of Smartphones and a Social Studies Teacher's Response. *Soc. Stud., 110 (3),* 122–130. doi: 10.1080/00377996.2019.1580666.

Sifferlin, A. (2013). *Why Facebook Makes You Feel Bad about Yourself.* https://healthland.time.com/2013/01/24/why-facebook-makes-you-feel-bad-about-yourself/

Sin, Y. (2016). *Cyber bullying linked to self-harm among the young in Singapore: Study.* https://www.straitstimes.com/singapore/cyber-bullying-linked-to-self-harm-among-the-young-in-singapore-study

Skinner, R. J. (2017). *A new study suggests teens are going online to cyberbully themselves, CBC Life.* http://www.cbc.ca/life/wellness/a-new-study-suggests-teens-are-going-online-to-cyberbully-themselves-1.4397856

Steeves, V. (2012). Young Canadians in a Wired World, phase III, talking to Youth and Parents about Life Online. *Media Smarts Publishing,* 3. www.mediasmarts.ca/researchpolicy

Stevens, F., Jason, R.C., & Arief, B. (2020). Cyber Stalking, Cyber Harassment and Adult Mental Health: A Systematic Review. *Cyberpsychology,*

Behavior, and Social Networking, 24(6). https://doi.org/10.1089/cyber.2020.0253

Strasburg, V.C., & Willson, B.J. (2002). *Children, Adolescent, and the Media.* London / New Delhi: Sage Publication.

Takahashi, T. (2016). *Japanese Youth and Mobile Media.* Japan: Rikkyo University.

Tayyeba et al. (2021). Clinicians' Perspectives on Self-Harm in Pakistan: A Qualitative Study. *Frontiers in Psychiatry,12(1),* 484. URL=https://www.frontiersin.org/article/10.3389/fpsyt.2021.607549

Wicaksono, H. (2019). Socio-Economic Status and Social Capital: A Multicausal Analysis of Bullying Among Highschool Students in Karawang, West Java. *MASYARAKAT: Jurnal Sosiologi,* 113-137. https://scholar.google.com.pk/scholar?q=The+Annual+Bullying+Survey+2017&hl=en&as_sdt=0&as_vis=1&oi=scholart

Thomas, M. (2011). *Deconstructing Digital Natives: Young People, Technology, and the New Literacies*. Routledge.

Topping, A. (2014). *Self-harm sites and cyberbullying: the threat to children from web's dark side.* https://www.theguardian.com/society/2014/mar/10/self-harm-sites-cyberbullying-suicide-web using makes people rely on search engines when facing unknown issues. PLOS

Varghese, N.E., Santoro, E., Lugo, A., Madrid-Valero, J.J., Ghislandi, S., Torbica, A., & Gallus, S. (2021). The Role of Technology and Social Media Use in Sleep-Onset Difficulties Among Italian Adolescents: Cross-sectional Study. *Journal of Medical Internet Research, 23(1)*, e20319 doi: 10.2196/20319, PMCID: 7862002

Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social Comparison, Social Media, and Self-Esteem. *Psychology of Popular Media Culture, 3*, 206.

Volpe et al. (2015). Internet-related psychopathology: clinical phenotypes and perspectives in an evolving field. *Journal of Psychopathology, 21,* 406-414.

Wang, Y., Wu, L., Luo, L., Zhang, Y., & Dong, G. (2017). Short-term Internet search.

Welsh, P. (2004, June 27). Students' scars point to emotional pain. *USA Today,* I lA.

Whitlock, J. L., Powers, J. P., & Eckenrode, J. E. (2006). The virtual cutting edge: Adolescent self-injury and the Internet. *Developmental Psychology, 42,* 407– 417.

Winterman, D. (2013). Cyber self-harm: Why do people troll themselves online? *BBC News Magazine.*

Yakeley, J., & Burbridge-James, W. (2018). Psychodynamic approaches to suicide and self-harm. *B J Psych Advances, 24(1),* 37– 45. DOI: https://doi.org/10.1192/bja.2017.6.

Yang, X., Xin, M., Liu., K., & Böke, B.N. (2020). The impact of internet use frequency on non-suicidal self-injurious behavior and suicidal ideation among Chinese adolescents: an empirical study based on gender perspective. *BMC Public Health, 20 (1727),* 1-11. https:// doi.org/10.1186/s12889-020-09866-0.

Zaffar et al. (2015). Facebook Addiction: Relation with Depression, Anxiety, Loneliness and Academic Performance of Pakistani Students. *Sci. Int. (Lahore), 27(3),* 2469-2475.

Zaheer, L. (2018). New media technologies and Youth in Pakistan. *Journal of the Research Society of Pakistan, 55(1),* 107-114.