

INTERNET ADDICTION, EMOTION REGULATION AND ACADEMIC PERFORMANCE AMONG ADOLESCENTS



by

Irsa Fayyaz
Reg. No. BSP183032

A Research Thesis submitted to the
DEPARTMENT OF PSYCHOLOGY
in partial fulfillment of the requirements for the degree of
BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Sciences
Capital University of Science & Technology,
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DEDICATION

*I would like to dedicate this manuscript to my mother **Ms. Kalsoom Bibi** for her unconditional love, support and prayers. She has been a source of motivation and strength during moment of despair and discouragement. I would also like to dedicate this research to my brother **Hammad Fayyaz** for always having my back. He is the one who provide resources that needed in making this research possible. I specially thank him for his continuous support and resilience during my education. I would like to dedicate this research to my friend **Hamna Nadeem** for supporting me and assisting me and being a source of inspiration throughout.*

DECLARATION

It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or Institution.



Irsa Fayyaz

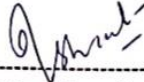
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CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "Internet Addiction, Emotion Regulation and Academic Performance Among Adolescents" carried out by Irsa Fayyaz, Reg. No. BSP183032, under the supervision of Dr. Ishrat Yousaf, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

Supervisor:



Dr. Ishrat Yousaf
Lecturer
Department of Psychology
Faculty of Management and Social Sciences
Capital University of Science & Technology, Islamabad

HoD:



Dr. Sabahat Haqqani
Assistant Professor
Department of Psychology
Faculty of Management and Social Sciences
Capital University of Science & Technology, Islamabad

Relationship Between Internet Addiction, Emotion Regulation and Academic Performance
Among Adolescents

By

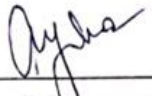
Irsa Fayyaz

Registration # BSP183032

Approved By



Supervisor
Dr. Ishrat Yousaf



Internal Examiner-I
Ms. Ayesha Aneeq



Internal Examiner-II
Ms. Sadaf Zeb



Thesis Coordinator
Ms. Irum Noureen



Head of Department
Dr. Sabahat Haqqani

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All praises to **Allah**, the Almighty, on whom ultimately, we depend for sustenance and guidance. And His blessings for the completion of this research. My humblest gratitude to the **Holy Prophet Muhammad (SAW)** whose way of life has been a continuous guidance for us.

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ABSTRACT

This research was designed to determine the association between internet addiction, emotion regulation and academic performance among adolescents of ages between 13 to 19 years. 300 Adolescents from schools and colleges participated in the study. In this study, correlational research design was used. Data was collected from Demographic Questionnaire, Internet Addiction Test and Emotion Regulation questionnaire. The convenience sampling technique was used to collect the data. The result of the study indicated that Internet usage, emotion regulation positively and significant affects Internet addiction. Hence, the objective based on research to determine the association between Internet Addiction, Emotional Regulation and Academic Performance of Adolescents. To explore gender differences in the levels of Internet Addiction, Emotional Regulation and Academic Performance among Adolescents. Therefore, adolescents should be provided knowledge about the negative effect of internet usage on their academic life.

Keywords: Adolescents, Internet Addiction, Emotional Regulation, Academic Performance

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LIST OF ABBREVIATION

IAT	Internet addiction test
ER	Emotion regulation questionnaire
AP	Academic performance

Chapter 1

Introduction

Internet is beneficial to our daily lives, however, excessive usage of internet can lead to addiction, which has a negative impact on our lives. Internet has several benefits, e.g the opportunity to increase ability, but it also has significant drawbacks (Oskenbay et al., 2015) and underneath educational achievement could result (Yeap et al., 2016). Almost every element of contemporary life has been impacted by the digital era's progress. People begin to rely on the internet as an essential device and it significantly affects aspects of all our daily lives including community, psychological, productive, and public. Individuals access the internet in public places at work, school and at home. Communication, business, shopping, pay bills online, entertainment, and many other things. On the internet their electronic devices may all visit the website. Internet use in excess can lead to addiction even though it has substantially enhanced our daily lives. Internet addiction was shown to affect 2.4% and 37.9% of the population (Alam et al., 2016). When teenagers with social media don't get enough sleep, current structured analysis and meta analysis upon relationships between rest indicated severely detrimental (Alimoradi et al., 2019). This emphasizes value based on encouraging youngsters to adopt sanitary measures excellence which includes refraining from using the Internet and smartphone right before bed time or while they are asleep. This has a lot to do with clinical practice. Addiction to the Internet and electronic devices make it difficult to rein excessive internet related behaviors, which in turn produces distress or impairment.

Using electronic devices and the Internet excessively increases the likelihood of numerous detrimental social and health outcomes, such as low unsatisfactory educational achievement, damaging self-identities, agitation, and unhappiness (Ting et al., 2019). The use of smartphones right before bed is a significant contributor to sleep loss in female adolescents. Due to shortened sleep length and quality, immoderate internet use has a pessimistic effect upon fitness. Most people who use the internet

excessively use it for internet community, networked leisure and social communication. Sadness, depression, health issues, school absence, jobless, weariness poor efficiency at work, and loneliness were the extreme reactions. The Internet Addiction may also contribute to melancholy, dissatisfaction, insecurity and attention-deficit hyperactive disorder (Norharlina, 2016).

Emotional regulation is defined a vital method that describe to the internal and external ways through that an person assess his emotions in a specified situation, including both conscious and unconscious physiological, behavioral and cognitive elements, and their prediction onto the intuitive, intellectual and community regions (Arsenio & Loria, 2014). Emotions perform a part in educational places, and have an important effect on educational achievement. Adolescents may be more or less exposed to developing internalizing and externalizing problems on their emotional regulation approaches (Lee et al., 2015). Reappraisal is an antecedent-focused strategy. Reappraisal is a thinking method that vary the meaning of an emotional situations in an exertion to less sad feelings (Gross, 1998). Reappraisal has been found to be highly adaptive approach, and individuals who frequently employ it exhibit greater wellbeing and less depressive symptoms than those who do not frequently do it (Gross and John,2003). Additionally, researches showed that participants express less negative emotion in comparison adaptive emotional regulation strategies (such as reappraisal) may allow a decrease in the anxiety induced feelings that result in bodily diseases (Shepperton et al., 2007).

Emotional regulation perform moderate part in the occurrence of distressing indications as well as bodily diseases (Compare et al. 2014). Internet usage is also associated with emotional regulation. Emotion control techniques, suppression is not just restricted to feelings; it can also be a coping mechanism for addictions (Gross,2007). By stifling their own thoughts, addicts try to restrain their cravings. Hormes, Kearns, And Timko (2014) found in their study that people with high degrees of Internet addiction had trouble controlling their emotions. According to Calpan's (2017) study, there is a

bad correlation between effective emotion control and internet addiction. You, Kim, and Hay (2016) found that individuals who used the internet in problematic ways had trouble controlling their emotions. Temper control was found to have an important impact on smart phone weakness (Zhang et al., 2014; Zhang, Chen, Zhao and Lee, 2014). According to a research by Lee, Cho, Kim and Noh (2015), those have more smartphone addiction standards exhibited lower levels of self regulation. Elhai, Levine, Dvorak, and Hall (2016) discovered important levels associations link anxiety and depression and difficulties to internet usage. The association link anxiety and poor internet usage was mediated by suppression, a dysfunctional emotion regulation approach. On the other hand, reappraisal did not significantly correlate with difficulties in internet usage. Hoffner and Lee (2015) discovered, smartphone users efficiently control their negative emotions.

Modern youth's lives are centered around their mobile devices. According to Kibona and Mgya's (2015) study, there is a negative relation between student educational achievement and smartphone addiction. According to Najmi, Raza and Qazi (2018), the English language and communication methods, teaching methods, and assessment methods are crucial elements that have an impact on student's academic achievement. Therefore, a smartphone is another important component that could have both a positive and negative effect. Student's academic performance will suffer as their focus on their studies decreases as they become more dependent on their smartphones. Additionally, students will study less if they use their smartphones constantly. There is a negative correlation between addiction and performance (Qazi et al., 2018). Student's who use smartphones excessively become socially isolated from their friends and family.

The academic performance of students is the essential role (Narad et al., 2016) of knowledge, the education acquired by the student which is evaluate by marks by a teacher and/or achievement aims set by students and teachers to be reached over a particular session of time. In previous studies, internet

community have had a important effect on students' performance. Addiction to communication technology has becoming a growing issue in Pakistan during the last few years. A study project was conducted on "Mental health concerns relating to the internet and mobile phones usage in developing countries", one of which was Pakistan. There was a study conducted at Khyber Pakhtunkhwa medical college (2015), according to this study dozens of adolescent girls from Pakistan were brought to his clinic by parents for mobile phone addiction. The majority of these girls had poor marks, had been accused of skipping class and spent majority of their time conversing. When using their mobile devices or sending messages to friends (mostly boys). These girls were rude and irritated in their conduct and stayed up all night conversing on the phones.

The most effective CBT treatment plan for Internet addiction is little understood. A variety of research have been used pharmacological therapy, cognitive- behavioral therapies, self- developed interventions as clinical interventions for Internet-related issues (Gradisar, 2011). CBT involved students observing their thinking and identifying those that trigger compulsive and temper and manner. The initial stage of treatment is behavioral, focusing on specific steps and conditions where the student's smartphone usage caused the most difficulties in their lives. Motivational interviewing approaches also used to help student's intuition into advantages and disadvantages of their smartphone usage and difficulty solution approaches to achieve objective of controlling smartphone usage.

Relationship between internet addiction, emotion regulation and academic performance

The relationship between IA and personality traits like neuroticism, conscientiousness, agreeableness, restlessness tendency, problematic behavioural traits, augmentation susceptibility, and annoyance has been the subject of numerous studies. The act of initiating, maintaining or modifying the prevalence, strength or period of affecting circumstances is known as emotion regulation. Emotional

dysregulation is opinion to be chance element for addiction. To manage inhibited actions and act in observing with needed aims when face pessimistic feelings, as well as the flexibility to use suitable feeling management approaches to regulate feeling actions as need, Gratz and Roemer desire that feeling management involves numerous understanding. These include (a) knowledge and appreciation of feelings, (b) receiving of emotions (c) capability to manage unexpressed actions and act in observing with needed aims when facing pessimistic feelings (d) flexibility to regulate psychological reaction as need to fulfill person's objectives and situational needs by using situationally relevant emotion regulation methods . Any or all of these skills that are relatively absent could be a sign of emotional regulation issues.

The net allows people to link along another, find out and accumulate information, and make good feelings(e.g., happiness, fun, satisfaction). Hence, internet addiction may replicate an Person's try to deal and break out by terrible feelings in regular lifestyle and sell extra fantastic influence. Hence, good psychological augmentation that can get up to use of the internet can without problems assemble an variations, main to misuse. In fact, internet addiction elevated pessimistic and reduced fine psychological states; shows that the higher quality optimistic psychological augmentation may also inspire may motivate extend smartphone usage.

Additionally, insufficiency with inside capacity to successfully become aware of determine and express feelings has been proven to noticeably expect IA. For example, in a patterns of students, IA became was actively compared with a discounted capacity to recognize psychological responses, manage unhibited conduct in reaction to facing bad circumstances, a use powerful psychological management approaches. The usage of smartphone as an break out conduct and way of handling with psychological problems and demanding occasions additionally been showed in a pattern of teenagers: confirmed that the existence of psychological difficulties, specifically in teenagers with little originality aspire,

anticipated the improvement of complicated community interconnection (e. g complicated usage of the smartphone), main distance to actuality.

Relationship between Internet Addiction and Academic Performance

Any compulsive, online-related behavior that get in the way with daily life also major pressure on the family, friends, favorite, and the workplace is referred as internet addiction (Young, 2019). Internet addiction is a variety of brainwave disease characterized by compulsive usage of mobile devices, the internet or video games not with standing negative consequences for the technology user(Rouse, 2018). According to the study, internet addiction is the behavior of obsessively and compulsively accessing the internet to the detrimental of one's daily life. As a result, learning through instruction and the use of a standardized scale can be used to define and quantify academic accomplishment.

Internet addiction is becoming more prevalent among internet users worldwide, with university students particularly affected (Dehghankar et.al., 2019).Categories of IA exist: includes the broad the detailed to be clear, generalized internet/ smartphone usage is a multifaceted and widespread behavioral habit that is connected with further issues such as impairment and family functioning, interpersonal issues and a shorter life span satisfaction, inadequate emotional health, and deteriorating performance in school (Chen et. al., 2020). The other hand however, Internet addiction refers to excessive smartphones and internet use that is concentrated on a specific task. For example, which shares (social media, gaming, gambling) features that generalized Internet addiction shares. Additionally, specific internet addiction has been linked to issues cyberstalking and bad health effects.

Virtual applications and social networks are used by students than any other demographic. Nevertheless, Internet use both optimistic and pessimistic effects on educational, communal, and well-being problems. Ultimately, detrimental effects on educational achievement and fewer time spent on study.

Studies have appeared that students need internet, also social media longer frequently usual result in perform poorly academically and have trouble focusing in classroom. Lower GPAs were found for those with IA in a study especially of students from Qatar (Al-Yafi et al., 2018). The symptoms of social media include temper, occupation, an unwillingness to set time limits and related technologies (Zhang et al., 2014). This could then affect probably impact more aspects on human being, including achievement and decent (Dhir et. al., 2015). Students who frequently use the internet and spend a lot time watching television are also more likely to have sleep issues (Yang et al., 2019; Chen & Gau, 2016).

Relationship between Emotional Regulation and Academic Performance

Emotion helps memory, operating capacity while the overall performance of college students. Past researches factor out that bad feelings are negatively associated with the grade common factors of college students, and a excessive degree of terrible will becomes the cause of low-level academic achievement performance of college students (Arsenio & Loria, 2014).

Hence, it has tested that feelings are without delay related to the studding capabilities of college students (Pekrun & Perry, 2014). Negative feelings with anxiety and fear intervene within inside the overall of performance of college students (Fiedler & Beier, 2014).The impacts of bad feelings on the educational achievement of adolescents propose that those are dangerous to inspire, overall performance, and mastering in numerous circumstances. Overall, terrible feelings in accomplishing the academic tasks are harmful in achieving the operating skills, the system of cognition, and self-regulation amongst students (Rowe & Fitness, 2018).

Theoretical framework

The theory of compensatory internet usage (Kardefelt et al., 2014) is related to the current study. According to the concept of compensatory internet usage, life stressor encourage few people to usage of internet. Individuals who usage of internet excessively as a managing approach to support them manage

with pessimistic feelings. Several researches, found experimental encourage for compensatory internet usage concept when it comes to describing difficulties in internet usage (Elhai et al., 2018). According to assumption, people who have a high tolerance for expressive suppression and have more motivation to use the internet (Elhai et al., 2018). People who have a high tolerance for cognitive reappraisal and have fewer inducement to use the smartphone (Elhai et al., 2018). Feeling magement perform an essential part in academic performance (Sirosis et al., 2019). Furthermore, appealing in internet usage is energetically used to low academic performance and other dedications (Meier et al., 2016). Expressive suppression (pessimistic feelings) proposed cause of academic performance (Wohl et al., 2010). When people are upset or sad, they postpone task more, those use suppression strategy, and the distraction reduces the negative feelings associated with academic performance (Tice et al., 2001).

Those students, use retrospection strategy to manage their emotional experiences describe high optimistic and less pessimistic feelings. (John and Gross, 2007). According to Gross reappraisal strategy, in the current study, low levels of internet addiction and high levels of academic performance. Those students, use the suppression strategy to manage their emotions, describe more negative and less optimistic feelings, and high stress. (Gross et al., 2014). According to Gross suppression strategy, in the current study, more standards of internet usage and fewer standards of academic performance.

Rationale

This study can be useful to explain even if internet addiction can affect the academic performance and even if emotional regulation deals with internet addiction behavior or not also to know about the gender differences among adolescents. Now a days; this study would explore the association of these three aspects. And how this all was turn out Pakistani sample was be another focus of explored.

This study focused on two ER strategies included in Gross' process model cognitive reappraisal and expressive suppression. ER strategies link with internet addiction and academic performance among

adolescents. Future research should determine the association between cognitive reappraisal and expressive suppression in clinical populations.

Objectives

- To determine the relationship between internet addiction, emotional regulation strategies i.e., (cognitive reappraisal and expressive suppression) and academic performance among adolescents.
- To explore demographic variables i-e age and gender differences in the levels of internet addiction, emotional regulation and academic performance among adolescents.

Hypothesis

- There would be positive relationship between Internet Addiction and Expressive Suppression strategy of Emotional regulation among adolescents.
- There would be negative relationship between Internet Addiction and Cognitive Reappraisal among Adolescents.
- There would be negative relationship between Internet Addiction and Academic Performance among Adolescents.
- There would be significant relationships between age and gender differences.

Chapter 2

Method

Research Design

In this study correlational research design was used.

Population and Sample

Sample were 300 adolescents from schools and colleges (122 females and 178 males) within an age range from 14 to 19 years. All adolescents lived in Islamabad. The adolescents in the current sample were of rural area (58) or urban area (242), whereas the majority of the adolescents were from rural area.

Sampling Technique

Convenience sampling technique was used in the study.

Inclusion Criteria

The respondents included in this study were all school and college students attending the different school and colleges and who were willing to participate. Age limit was (13-19), which were willing to participate in the study.

Exclusion Criteria

Individuals who are unable to understand and respond to English were excluded.

Instruments

Demographic Sheet

Participants filled a short demographic questionnaire that asked information about gender, age, ethnicity and institution name. The demographic form was created on the basis of aspects that emerged in the literature related to Internet Addiction, Emotional Regulation and Academic Performance.

Internet Addiction Test (IAT)

The Internet Addiction Test (IAT; Young, 1998) appeared to compute the existence and power of smartphone and mechanics possession among adolescence. Internal consistency for scale is reported while 0.93.

The 20-item IAT questionnaire examines characteristics and actions such as obligation, imagination that are join to uncontrollable smartphone usage. Examinees rate how much they agree with each statement on a likert scale using a number between 1 and 5, indicating their level of agreement. The IAT, which has versions in English, Chinese, French, Italian, Turkish, and Korean, is the most wide used measure of smartphone usage. The sum of the examinee's for each of the 20 item replies constitutes the IAT's overall score. On a score of 0 to 5, each object is given a rating. There is a 100 point maximum. The more points you receive, the more serious your situation is. Total scores between 0 and 30 points are thought to represent typical internet usage; scores between 31 and 49 suggest a mild level of internet addiction; scores between 50 and 79 reflect a moderate level; and scores between 80 and 100 indicate a serious reliance on the Internet.

Emotional Regulation Questionnaire (ERQ)

A 10-item ERQ questionnaire formulate to compute respondent's predisposition to manage their feeling in two methods: (1) Cognitive Reappraisal and (2) Expressive Suppression. Cognitive reappraisal is a type of cognitive change that includes interpreting a circumstance that could cause emotion in a method that modifies its emotional impact (Lazarus & Alfert, 1964). Expressive suppression is a form of response modification that includes preventing continuing emotional expression of behaviour (Gross, 1998). Respondents answer each item on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Items 1, 3, 5, 7, 8, 10 make up the Cognitive Reappraisal facet and items 2, 4, 6, 9 make up the Expressive Suppression facet. The Cronbach's α of the ERQ total scores and subscales were

acceptable (0.73 ~ 0.82). We methodically developed the ERQ items, making clear in each component the feeling management method wished to assess, e.g. “I control my emotions by reappraising the circumstance” and “I manage my emotions by suppressing them” (suppression). Along with these basic emotion questions, both the Reappraisal subscale and the Suppression subscale both involve at minimum one question about controlling pessimistic feeling (examples of which were grief and anger for the participants) and one question about controlling optimistic feeling (happiness and laughter) (Gross, J.J., & John, O.P. (2003).

Academic Performance

Academic performance is the evaluation of adolescents' performance across various educational subjects. Academics generally evaluate performance using classroom achievement, and results. Student's academic achievement is evaluated by final results (achievement after the end of session). Taken student's result from schools and colleges by the permission of parents.

Procedure

For this study, the data was collected from adolescents' school and college students of ages between 13 to 19. Firstly, taken consent form from parents to take permission for child participate as a volunteer. Before administering them on different instruments, informed briefly about the purpose of the research purpose were assured about the confidentiality of shared information. Secondly, students filled a short demographic questionnaire that asked information about gender, age, ethnicity and institution name. Participants were asked to sign consent form. Next, the questionnaires of the study were distributed that included demographic form, Emotional Regulation Scale and Internet Addiction Test. The participants individually completing the questionnaires, without time limit.

Ethical considerations

To ensure the confidentiality of the participants, from demographic sheet, internet addiction test, emotion regulation questionnaire and academic performance did not include any such information through

which the participants could be identified. Along with this participants were only asked information that was relevant to the study. In order to increase the privacy the participants were given the questionnaires individually not in groups so that no one can read their responses. Participants were required to read and sign on the consent form prior to completion of the questionnaire.

Data analyses procedures

Data was analyzed using SPSS software. Demographic characteristics of participants were analyzed using descriptive statistics included frequencies, percentages, means and standard deviations. In order to check the reliability scales alpha coefficient was calculated. Hypothesis one, two and three to investigate the relationship between internet addiction, emotion regulation and academic performance for this purpose a correlation analysis was conducted. Spearman's rho correlation analysis due to the non- normal distribution of data.

Chapter 3

Result

Demographic characteristics of the sample

Table 1

Descriptive analyses of the demographic variables of the study participants (N=300)

Variable	Categories	<i>F</i>	%
Gender	Male	178	59.3
	Female	122	40.7
Age in years	13 to 15	101	33.7
	16 to 19	199	66.3
Institution	School	116	38.7
	College	184	61.3
Ethnicity	Punjabi	236	78.7
	Sindhi	0	0
	Balochi	0	0
	Pathan	64	21.3
Residence	Urban	242	80.3
	Rural	58	19.3

Note: f= Frequency, %= Percentage

Table 1 shows the demographic information of the variables. There were 178 Male (59.3%) and 122 female (40.7) adolescents ranging in age between 13 to 19 years old. The distribution of the age in the sample is non-normal, as the value of the Kolmogorov-Smirnov (K-S) test is significant ($p < 0.05$).

The sample mostly consisted of Punjabi ethnic background (78.7%), followed by Pathan (61.3%). Sindhi (0%) and Balochi (0%). The majority of these adolescents, 116 (38.7%), were from school, while 184 adolescents (61.3%), were from college. The majority of these adolescents, 242 (80.3%), were from urban area, while 58 adolescents (19.3%) were from rural area.

Reliability Analyses of the Instruments

To find out the reliability of the scales in the current study alpha reliability was calculated. The results of the reliability are presented in the following table 2.

Table 2

Cronbach's alpha reliability coefficients with means and standard deviations of internet addiction test, emotion regulation questionnaire, cognitive reappraisal and expressive suppression (N=300).

Variables	Items	M	SD	a	Range	
					Potential	Actual
IAT	20	76.90	8.03	0.76	94	58
ERQ	10	39.39	5.39	0.80	55	23
I. CP	6	23.46	4.43	0.7	37	6
II. ES	4	15.99	3.58	0.7	28	7

Note. M= Mean score, SD= Standard Deviation, a= Cronbach's alpha value, IAT= Internet addiction test, ERQ= Emotion regulation questionnaire, CR= Cognitive reappraisal, ES= Expressive suppression.

Table 2 indicates the reliability coefficients of for the Internet Addiction Test IAT ($a= 0.76$), Emotion Regulation Questionnaire (ERQ, $a= 0.80$), the Cognitive Reappraisal CP ($a= 0.7$), and the Expressive Suppression ES ($a= 0.7$), which shows that the instruments had acceptable reliability in this study. Therefore, it is concluded that all the instruments were internally consistent and were reliable measures of the constructs.

Descriptive statistics for Instruments used in the study

The descriptive statistics for internet addiction, emotion regulation questionnaire, cognitive reappraisal, and expressive suppression are presented in the following table 3.

Table 3

Descriptive statistics for internet addiction test, emotional regulation questionnaire, cognitive reappraisal, and expressive suppression (N=300).

Variables	M	Me	Md	SD	Skewness	Kurtosis	K-S	p
IAT	76.9	78.0	78.0	8.03	-0.15	0.57	0.06	0.005
ERQ	39.3	39.0	38.0	5.39	0.07	0.47	0.07	0.00
I. CR	23.4	23.0	21.0	4.43	0.13	0.48	0.06	0.005
II. ES	15.9	16.0	16.0	3.58	-0.12	0.05	0.08	0.00
AP	419.3	342.5	311.0	191.1	1.47	0.94	0.27	0.00

Note. M= Mean score, Me= Median score, Md= Mode, SD= Standard Deviation & K-S= Kolmogorov Smirnov test ($p < 0.05$), Internet addiction test (IAT), Emotion regulation questionnaire (ERQ), Cognitive reappraisal (CP), Expressive suppression (ES), and AP= Academic Performance.

Table 3 shows that Mean, Median, Mode and standard Deviations of the variables. The value of K-S test, Skewness and Kurtosis in the table above give details of the non-normal distribution of data for all the study variables.

Association between internet addiction, emotion regulation, and academic performance

A correlation analysis was performed to determine the association between internet addiction, emotion regulation, and academic performance. Spearman rho correlation test was used for the variables due to non- normal distribution. (see table for values of normality test). Results are shown in table 4.

Table 4

Spearman rho correlation between measures internet addiction, emotion regulation, and academic performance (N=300).

	Measures	1	2	3	4	5
1	IAT	-	0.37*	-	-	-.085**
2	ERQ	-	-	-	-	-.07**
3	CP	-	-	-	-	-0.12*
4	ES	-	-	-	-	-1.117**
5	AP	-	-	-	-	-

Table 4 indicates the correlation among the all variables. Internet addiction has positive correlation with Emotion regulation (N=300, $p > 0.01$). This entails that the increase in the levels of internet addiction will lead to increase in the levels of emotion regulation. Whereas, Internet addiction has positive correlation with academic performance (N=300, $p > 0.01$). This entails that the increase in the levels of internet addiction will lead to increase in the levels of academic performance. The emotion regulation has negative correlation with academic performance (N=300, $p < 0.05$). This entails that the increase in the levels of emotion regulation lead to decrease in the levels of academic performance.

Independent sample T-test

Independent t-test was conducted to investigate whether the statistical differences among between the means of two groups. The statistical differences are presented in the following table 5.

Table 5

Comparison of study variables with age (N=300)

Measures	13-15		16-19		t	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
IAT	77.4	7.8	76.6	8.12	0.81	0.41	-1.13	2.72	0.7
ERQ	38.9	5.3	39.7	5.41	-1.22	0.22	-2.10	0.4	-0.80
I. CR	22.8	4.3	23.8	4.47	-1.9	0.05	-2.08	0.04	1.02
II. ES	16.2	3.5	15.9	3.61	0.80	0.41	-0.50	-0.40	0.35
AP	317.6	48.64	471.0	214.3	-7.09	0.00	-195.0	-110.8	-153.3

Note. M= Mean square, SD= Standard deviation, t= Size of difference , p= Significantly (2 talied), LL= Lower difference, UP= Upper difference, Cohen's d= Mean difference $p^<0.5$, $**p<0.1$, $***p<.001$.*

Table 5 indicates mean differences on study variables Across different categories of age. Non-significant differences were found among Different age categories across level of internet addiction, emotion regulation and academic performance ($p>0.05$). Although there are slight differences among the groups on internet addiction, emotion regulation and academic performance scores but these differences is not statistically significant ($p > 0.05$).

Table 6*Comparison of study variables with Gender (N=300)*

Measures	Male		Female		t	p	95% CI		Cohen's
	M	SD	M	SD			LL	UL	
IAT	77.1	8.12	76.56	7.90	298	0.51	-1.24	2.48	0.61
ERQ	39.9	5.39	38.7	5.32	298	0.05	-0.0	2.47	1.23
I. CR	23.63	4.47	23.20	4.30	0.82	0.41	-0.50	1.46	0.4
II. ES	16.30	3.50	15.54	3.64	1.82	0.40	-0.06	1.59	0.7
AP	380.7	151.1	475.8	226.5	4.36	0.00	-138.0	-52.2	-95.13

Note. M= Mean square, SD= Standard deviation, t= Size of difference, p= Significantly (2-tailed), LL= Lower difference, UP= Upper difference, Cohen's d= Mean difference

Table 6 revealed that mean differences across gender on all the study variables. It is found that there is a significant difference on internet addiction, emotion regulation, and emotion regulation strategies (cognitive reappraisal, expressive suppression) in females as compare to the male. Cohen's d value for these scales are 0.61, 1.23, 0.42 and 0.76 respectively. It shows that female have good academic performance (F= 475.8) as compare to the male (M= 380.7).

Chapter 4

Discussion

The research determined the impact of internet usage, emotional regulation on internet addiction which impacts the student's academic performance. The reliability of the scales was checked by calculating Cronbach's alpha reliability.

Descriptive analyses revealed that the research student's extended in age from 13 to 19 years. Furthermore, the majority of the sample belonged to the Punjab ethnic group. The majority of the students came from rural areas. Several important findings were revealed by descriptive analyses of the instruments used in this study. To begin, the term "adolescent" refers to a high frequency of internet usage. This suggests that the current study adolescents are more adversely affected by internet use. Emotions are significant and fundamental to the human experience. They are made up of a variety of elements, including thinking evaluation, psychological action, and reaction predispositions (Kleinginna, 1981). Adaptive ER challenges are linked to a variety of psychopathologies, including anxiety and depressive disorders.

According to hypothesis one, adolescents with high levels of expressive suppression will have high levels of internet addiction. A correlational analysis of the data revealed a positive relationship between internet addiction and emotional regulation. Adolescents with internet addiction demonstrated greater difficulties in emotional regulation during attention demanding situations. According to hypothesis two, adolescents with high levels of internet addiction will have low levels of cognitive reappraisal. A correlational analysis of the data revealed a negative relationship between internet addiction and cognitive reappraisal. According to hypothesis three, adolescents with high levels of internet addiction will have low levels academic performance, because adolescent's when get addicted to

internet focus on their studies which decreases their academic performance. A correlational analysis of the data exhibit a negative relationship between internet addiction and academic performance. According to hypothesis four, adolescents with high levels of internet addiction will have low levels academic performance. A correlational analysis of the data exhibit a negative relationship between internet addiction and academic performance.

Conclusion

The research investigated the part of internet addiction, emotional regulation, academic performance, and emotional regulation on internet addiction which pessimistic impacts adolescents educational performance. The data has been collected from school and college students to recognize their standard of Internet Addiction. Numerous test and questionnaires have been done in this research to test the association between the variables. The SPSS software has been used in the research to test the hypothesis. Hence, educational seminars should be held in the schools and colleges to improve the knowledge of the pessimistic effects of Internet usage on Student's educational achievement.

Limitations

Research contains few obstructions. This study implemented on adolescents. It looked at the impact's social media on education and emotional regulation, other variables need occur observe during upcoming researches. In addition, because it is an essential issue in society, it is advised that it is comparable and related study be done more in the future.

Implications

This research has many benefits for the children, parents, teachers along with school and colleges. For internet use, school might offer different instructions. This issue may be addressed by the school through a support system and counselling session. To ensure that students used internet for educational purposes. Students must be completely informed of the detrimental impacts of internet addiction on their emotions.

References

- Ambad, A.N., Sylvia, M. N., & Kalimin, M.K., (2017). The Effect of Internet Addiction on Students Emotional and Academic Performance. *Academic journal*, 6(1), 86-98
- Bailen, H. N., Green, M. L., & Thompson, J.R. (2019). Understanding Emotion in Adolescents: A Review of Emotional Frequency, Intensity, Instability, and Clarity. *Emotion Review*, 11(1), 63-73
- Chou, C., Condrón, L., & Belland, J.C. (2005). A review of the research on Internet addiction. *Educational Psychology Review*, 17(4), 363-388 Performance among University Undergraduates. *Educational research and reviews*, 8(19), 1793-1796
- Cerruti, R., Spensieri, & Guidetti, V. (2017). An exploratory study on Internet addiction, somatic symptoms and emotional and behavioral functioning in school-aged adolescents. *Clinical Neuropsychiatry: Journal of Treatment Evaluation*, 14(6), 374–383.
- Cole, P., Martin, S., & Dennis, M. (2004). Emotion regulation as a scientific construct: methodological challenges and directions for child development research, 75(2), 317-33.
- Chashmi, S.J., Hasani, J., & Kussa, D.J. (2020). Tolerance for ambiguity, reappraisal, suppression mediate the relationship between problematic internet use and procrastination, 15(8), 76-98.
- Goldin, P., McRae, K., & Gross J.J. (2008). The neural bases of emotion regulation: reappraisal and suppression of negative emotion. 63(6), 577-866.
- Gavurova, B., Ivankova, V., & Rigelsky, M. (2022) Internet Addiction in Socio- Demographic, Academic, and Psychological Profile of College Students, 32(6), 89-100.
- King, D. L., Delfabbro, P. H., & Griffiths, M. D., (2012). Cognitive behavioral approaches to outpatient treatment of internet addiction in children and adolescents. 68(11), 1185- 95.

Kussa, D. J., Shorter, G. W., & Griffiths, M. D. (2013). Assessing Internet addiction using the parsimonious Internet addiction components model. A preliminary study. *International Journal of Mental Health and Addiction*, 11(5), 101-125.

Peixoto, F. & Carvalho, R. (2009). Parental attitudes toward academic achievement: Effects on motivation, self-concept and school achievement. *Contemporary motivation research: From global to local perspectives*, 60(10), 279 – 297.

Preece, D. A., Becerra, R., & Gross, J. J. (2019). The emotion regulation questionnaire: Psychometric properties in general community samples. *Journal of Personality Assessment*. 45(10), 372-383.

Senad, R., R. (2018). The Effect of Internet Addiction on Emotional Maturity of Collage Going Students. *International Journal of Indian Psychology*, 6(4), 16-22.

Raza, S. A., Yousufi, S. Q., & Javaid, S. T. (2020). Impact of Smartphone Addiction on Student's Academic Achievement in Higher Education Institute of Pakistan. *Journal of Education and Social Sciences*, 8(1), 1-14.

Tsai, J. K., Hsiao, R. C., & Yen, C. F. (2020). Relationship between Difficulty in Emotion Regulation and Internet Addiction in College Students: A One-Year Prospective Study, 2(17), 756-766.

Van, B. M., Wante, L., & Braet, C. (2019). How do I feel right now? Emotional awareness, emotion regulation, and depressive symptoms in youth, 28(3), 389- 398.

York, T., Gibson, K., & Javaid, S. T. (2015). Defining and Measuring Academic Success. *Practical Assessment, Research, and Evaluation*. 32(6), 456-487.

Appendix A

Informed consent

I am a student at Capital University of science and technology. I am doing this research project for completion of Bachelors degree. The topic of this research is “Internet Addiction, Emotional Regulation and Academic Performance among adolescents”. For this purpose, you are required to sign the consent form. Then you will be asked to fill the demographic sheet and three questionnaires.

I request you to take part in the study. Information in the study and its record will be kept confidential. This will only be used for research and academic purposes. However, at any stage if you feel the need, then you can withdraw from the research.

Your participation will be highly appreciated.

Signature: -----

Appendix B
Parental Informed consent

I am a student at Capital University of science and technology. I am doing this research project for completion of Bachelors degree. The topic of this research is “Internet Addiction, Emotional Regulation and Academic Performance among adolescents”. For this purpose, I will be asked to your child to fill the demographic sheet and three questionnaires. If you are willing for your child's participate in this research, then you will be sign to consent form.

Information in the study and its record will be kept confidential. This will only be used for research and academic purposes.

Signature: -----

Appendix C

Demographic Questionnaire

- 1) Gender: Male/ Female
- 2) Age: _____
- 3) Educational institution? _____ (School/ College)
- 4) Class: _____
- 5) What is your ethnic background? _____ (For example, Punjabi, Sindhi, Balochi, Pathan etc)
- 6) Place of residence: _____ (Urban/ Rural)

Appendix D

Emotion Regulation Questionnaire (ERQ)

For each item, please answer using the following scale:

1-----2-----3-----4-----5-----6-----7 **strongly**
agree **neutral** **strongly disagree**

1. ____ When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
2. ____ I keep my emotions to myself.
3. ____ When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.
4. ____ When I am feeling positive emotions, I am careful not to express them.
5. ____ When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.
6. ____ I control my emotions by not expressing them.
7. ____ When I want to feel more positive emotion, I change the way I'm thinking about the situation.
8. ____ I control my emotions by changing the way I think about the situation I'm in.
9. ____ When I am feeling negative emotions, I make sure not to express them.
10. ____ When I want to feel less negative emotion, I change the way I'm thinking about the situation.

Appendix E

INTERNET ADDICTION TEST

Do you use the Internet for work? Yes/ No

After reading each statement carefully, please select the response (0, 1, 2, 3, 4 or 5) which best describes you.

0= Not Applicable

1= Rarely

2= Occasionally

3= Frequently

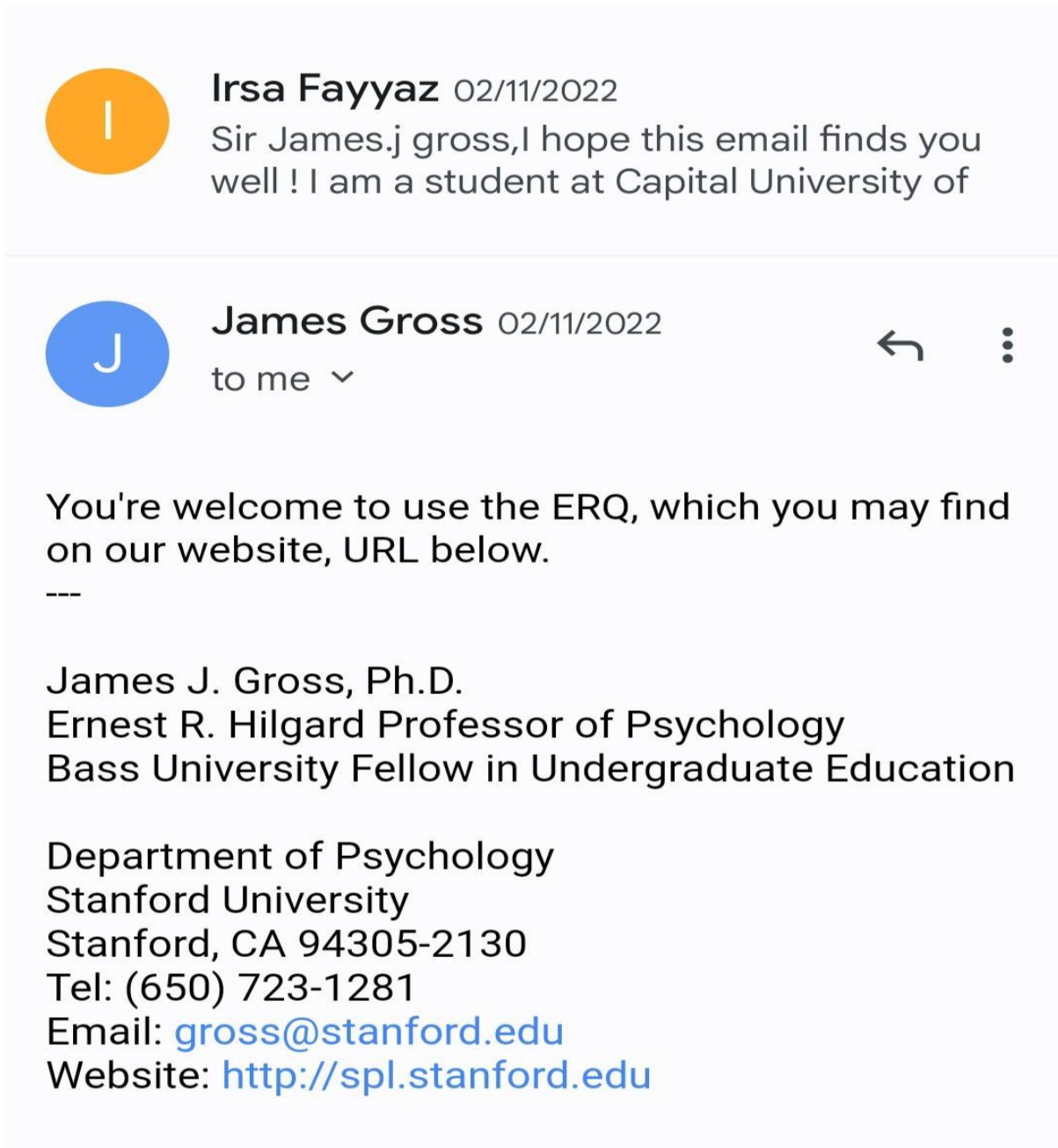
4= Often

5= Always

1. ____ How often do you find that you stay online longer than you intended?
2. ____ How often do you neglect household chores to spend more time online?
3. ____ How often do you prefer the excitement of the Internet to intimacy with your partner?
4. ____ How often do you form new relationships with fellow online users?
5. ____ How often do others in your life complain to you about the amount of time you spend online?
6. ____ How often do your grades or school work suffer because of the amount of time you spend online?
7. ____ How often do you check your email before something else that you need to do?
8. ____ How often does your job performance or productivity suffer because of the Internet?
9. ____ How often do you become defensive or secretive when anyone asks you what you do online?
10. ____ How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?
11. ____ How often do you find yourself anticipating when you will go online again?
12. ____ How often do you fear that life without the Internet would be boring, empty, and joyless?
13. ____ How often do you snap, yell, or act annoyed if someone bothers you while you are online?
14. ____ How often do you lose sleep due to being online?
15. ____ How often do you feel preoccupied with the Internet when off-line, or fantasize about being online?
16. ____ How often do you find yourself saying "just a few more minutes" when online?
17. ____ How often do you try to cut down the amount of time you spend online and fail?
18. ____ How often do you try to hide how long you've been online?
19. ____ How often do you choose to spend more time online over going out with others?
20. ____ How often do you feel depressed, moody, or nervous when you are off-line, which goes away once you are back online?

Appendix F

Permission to use the ERQ



report

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SIMILARITY INDEX

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INTERNET SOURCES

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STUDENT PAPERS

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