

THE PATTERN OF FACEBOOK USAGE AND ITS IMPACTS ON PHYSICAL ACTIVITY

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Abstract:

Objectives: *The study was to find out the relationship between Facebook usage and participation in physical activities.*

Methods: *During the year 2020, a cross-sectional study was conducted on 250 identified students from 5000 in the faculty of Allied Health Science at the University of Lahore, Pakistan. According to this survey use the technique of convenience sampling, after the formula of sampling by Yamane (1967). All of the questioners of the independent and the dependent variable are used for the measure Facebook addiction of the participation in physical activity.*

Results: *Demographic data male participation 134 (53.6%) and 116 (46%) females in this study. The relationship among variables is .11, which is significant at $p > .001$. This result shows that there is a greater than a 0.1% chance that the independent variable (F.B) affects participation in the physical activity. The study reveals the limited benefits excessive use of Facebook is a little effect on participation in physical activity.*

Conclusion: *As per this result, the limited benefits excessive use of Facebook is a little effect on participation in physical activity; another aspect may be an effect on the participation on the physical activity like social, educational, behavioral and economic, etc.*

Keywords: Facebook; faculty of Allied Health Science; Physical activity; Male and female; young adults.

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Introduction:

Over the last few years, it has been seen that the relationships and contacts that people used to have with each other and by the telephone have now been replaced by social media and at the same time the invention of the smart mobile phone has created innovation in it. But along with its benefits, social media is creating many effects in our personal lives in which our economic, political, business, and cultural life have been greatly affecting. (Sang Woo Lee, Jiyoung Lee 2017).

The first social networking site Sixdegree.com was created in 1997 and can now be viewed on many websites on the social networks. Of these sites, Facebook is the most used. Students play a major role in using Facebook, which has led to a decline in other activities of the student community. Facebook is a site through which people exchange messages and photos. In addition, through Facebook, the students stay in touch with their old friends and at the same time, more relationships are formed. (Ahsan ul Haq & Sohail Chand 2013).

Facebook is an American for-profit corporation and online social media and social networking service. The Facebook website was launched on February 4, 2004, by Mark Zuckerberg, along with fellow Harvard College students and roommates, Eduardo Savarin, Andrew McCollum, Dustin Moskovitz, and Chris Hughes. Many students can be seen on Facebook, including both male and female students. The reason is that students can easily understand and use it and they have enough time to spend on this site. But in contrast, the number of female students is higher than that of male students (Ahsan ul Haq & Sohail Chand 2013).

Physical Activity is a process by which we can keep our bodies fit. At the same time, they can participate fully in economic and social activities because after doing various physical activities, the body feels very tranquil and the mental and physical stress of the whole day is also removed from the body. If we do physical activities daily, it becomes a normal part of our lives. Theoretically, awareness of Physical activity leads to participation in physical activity, but we see most of the leisure time of the students is consumed by social media. The study will try to find out the impact of Facebook usage and addiction on the participation of Students in Physical Activity. Theoretically, awareness of Physical activity leads to participation in physical activity, but we see most of the leisure time of the students is consumed by social media. The study will try to find out the impact of Facebook usage and addiction on the participation of Students in Physical Activity.

Alternate Hypothesis

Facebook will lead to decrease participation in physical activity despite awareness of its health benefit.

Null Hypothesis:

Facebook will not lead to decrease participation in physical activity regarding of its health benefit.

Research Objective

To determine the relationship between Facebook usage and participation in Physical Activity.

Gap analysis

According to Cetin Yamane (2013) Nowadays Computer and internet users also increase the amount of time that passes through the internet. It is the ability to access the internet service anytime-anywhere through mobile technologies, addiction to Facebook is rising on a daily basis internet increase in Facebook addiction levels, time spent on the internet and social media must be limited to certain basic. So we arrange different seminars for the consolation of the students on the usage, correct criteria of the internet or social media. Because the students use the internet or it for the help of academic preparation, but after some time he spends more leisure time on the internet, hence the wastage of the important time. There is a need to study the effect of Facebook usage on different aspects of life including physical activity.

Literature Review:

Syed Ali Raza., (2016) this study analyzes the influence of Facebook usage on building social capital among university students. The purpose of this study is to gather information about Facebook among the people who are so passionate about using Facebook and who uses it considering its usefulness and at the same time, it looks at the effects that Facebook has on their life.

Mehmet Baris (2017) in this study analyzed the fact that the number of people using Facebook is higher in the morning because it gives us an idea of the importance of user engagements and timelines. As a result, it is known that people use it in the evenings for their professional purposes, while in the morning; only use it for messages, status, groups, pictures, and notes.

Yu-Leung Ng (2019) the purpose of this study was to look at the attitudes of people connected with social media, which include necessary and non-essential activities. The result

is that Facebook helps to build relationships between people, but the misuse of these activities leads society to the wrong site, which in turn leads to the wrong harm.

Khan Reem (2020) the purpose of this study was to change the players through Facebook and tablet which was related to badminton in sports. Players were allowed to use tablet and Facebook. Players who were allowed to use tablets and Facebook had different ways of playing badminton than those who were not given this decision. This result proves that Facebook changes the way players play.

Nagaletchimee Annamalai et. al (2019) the purpose of this study is to show that students have a habit of using Facebook, which they use for entertainment. Does it also meet their identity and information needs? For this study, data was taken from 343 students at the university level. The results show that social and entertainment services had a greater impact on Facebook use. At the same time, identity and information had nothing to do with Facebook habits. Due to which Facebook was found to have a psychological connection with the students.

According to Davoud Nikbin (2020), the study aimed to look at physical health and social performance in people who were addicted to Facebook and also to see the relationship between his personality and his Facebook habit. The online survey took data from 301 Malaysians. The results show that Facebook's habit has a profound effect on physical performance and social health and at the same time, the effects of Facebook on the human personality have been seen.

According to Mohammad Jakir Hosen et al (2020), the purpose of this study was to look at the effects of excessive internet use on the health of a group of internet users in Bangladesh. For which data of 1186 students were taken. It found that 70% of students were connected to the Internet and used the Internet 4-6 hours a day. As a result, it was found that excessive internet use among students harms their health. It is important to review the student's use of the Internet, which will have a positive effect on the student's use of the Internet.

According to U Kelzang (2020), Facebook has changed the lives of many people through social media, most of them university and college students whose lives have been adversely affected by excessive and negative use of Facebook. The study found that instead

of blocking the Facebook site for students, they should be encouraged to use positive results and educate them on the correct uses.

As per SM ELNaggar et al (2020), the purpose of this study was to assess the increased use of Facebook in secondary school. For which data of 250 students were taken. As a result, it was observed that most of the students were not addicted to Facebook because Facebook habits harmed student performance as well as their results.

According to Heidi Ruotsalainen et. al (2015) this study, evaluate the effect that Facebook given lifestyle consoling intervention through or lacking PA self-monitoring, on PA and BMI (Body Mass Index) in overweight and obese 13- 16-year-old. The researcher divided the sample into three randomized trials. The first group was given Facebook access to watch the PA, while the second group has been given access to Facebook; it has not been monitored yet and the third group was left free like the control group. As per this study, the results highlight intervention is not effective in increasing physical activity in overweight and obese adolescence. Before the implementation, there is more need of intervention for the effectiveness.

Methodology:

Information regarding the finding related to the study, participation, data collection tool, and the processes is given in the section.

Study Design:

A cross-sectional approach is used for this study to answer the main research question explain in the present study. A cross-sectional approach is a statistical model use to determine if there is a relationship between the variable being researched. The quantitative design of this study is cross-sectional. This study survey is face to face not online. Collect the data through face to face which is reliable than online data collection. The major aim of the survey study is to describe the individual characteristics of the group.

Study setting:

Before the collection of the data, preliminary data were collected from the Department of Sports Sciences at the University of Lahore with the permission of the

University of Lahore Institutional Review Board. Data collection was completed in 2020. The survey method was used for data collection to distribute the questionnaire between the students that are enrolled in this department.

Population

Participants (N= 5000) were current students in the faculty of Allied Health Sciences from the University of Lahore in Lahore City. According to this survey use the technique of convenience sampling, after the formula of sampling by Yamane (1967) the total sample is 250 students of the FAHS.

Sampling

According to this survey use the technique of convenience sampling, because convenience technique is a technique in which non-probability sampling which involves the sample being drawn from that part of the population that is close at hand and easy to access. In this study participants for the sample 250 students of the FAHS.

There are about 5000 students in the Faculty of Allied Health Sciences, The University of Lahore, hence in accordance with Yamane (1967) use sample size formula;

$$n = N/(1+Ne^2)$$

$$N = \text{population (5000)}$$

$$e = \text{standard error (0.05)}$$

$$n = \text{sample size (250)}$$

Like according to previous article result Suhail(2013) 85% university students' use of Facebook. So according to this article result data is easy to collect with that technique.

Data collection procedure

Through a survey that includes information that helps to collect the correct data regarding the purpose of this study, during the collect information guideline provide to the students that participated in the study regarding the question, instructions for completing the

survey. The item of the questionnaire was included in the paper which indicates complete survey of the willingness of the participants in the study and give the option which the participant could not answer the question if they desire.

Measure

All of the questioners of the independent and the dependent variable is used in the (Andreassen et. al. 2012) having 18 items would be to measure Facebook addiction of the participation, they use Likert style of questioners' items and dependent variable scale use from the (Booth, M.L 2000) having the total 27 items but as per the demand of this study uses the last 7 items of the scale, these items was close-ended style but items changed into Likert style as per this study requirement. The items must have evidence of reliability and validity when used with the faculty of Allied Health Sciences.

Data Analysis and Result:

To analyze the Pattern of Facebook usage and its impact on physical activity, 250 university students participate in this study from the University of Lahore that have been selected through convenience sampling. The data was collected from the Department of Sports Sciences and Physical Education at the University of Lahore. Demographic data participated male 134 (53.6%) and 116 (46%) females in this study. The relationship among variables is .11, which is significant at $p > .001$; this value shows the simple correlation between Facebook and Physical activity. This value shows that the greater than a 0.1% chance that the independent variable (F.B) affects participation in physical activity. $R = .107$ because there is only one predictor, R^2 is .011 which means the Facebook usage for 11% of the variation in physical activity. F -ratio is calculated using equation and the associated significance value of that F -ratio. As per these data, F is 2.869, which is significant at $p > .001$ (because the value in the table of 4.4 *sig* is greater than .001). There is greater than a 0.1% chance that an F -ratio this small would happen if the null hypothesis were wrong.

Table-4.1: Gender Statistics of the Participants (n=250).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	134	53.6	53.6	53.6
	Female	116	46.4	46.4	100.0
	Total	250	100.0	100.0	



Bio-Graphical Analysis

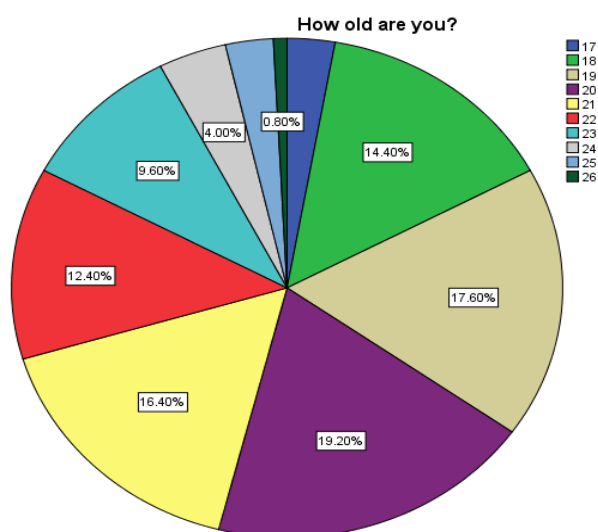
Figure 1: The gender statistics of the participant in this study is described in table-4.1; the result shows that only 116 (46.4%) female and 134 (53.6%) male students participate in Physical Activity are selected through convenient sampling which is due to less participate in physical activity.

Table-4.2: Age Distribution of the participant's Faculty of Allied Health Science students(n=250).

How old are you?

N	Valid	250
	Missing	0
Mean		20.50
Median		20.00
Mode		20
Std. Deviation		1.980

Age					Cumulative
	Frequency	Percent	Valid Percent		Percent
Valid	17	7	2.8	2.8	2.8
	18	36	14.4	14.4	17.2
	19	44	17.6	17.6	34.8
	20	48	19.2	19.2	54.0
	21	41	16.4	16.4	70.4
	22	31	12.4	12.4	82.8
	23	24	9.6	9.6	92.4
	24	10	4.0	4.0	96.4
	25	7	2.8	2.8	99.2
	26	2	.8	.8	100.0
Total	250	100.0	100.0		



Pie chart of age distribution

Figure 02: The age distribution of the participants in this study is shown in table-4.2. The data show the total number of the age-related frequency. The age starts participant from 17 to end 26 years old. This table and chart show the strength and the percentage of the participant according

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.107 ^a	.011	.007	.70185	1.579

a. Predictors: (Constant), mean_FBU

b. b. Dependent Variable: mean_PA

able-4.3: Model summary table shows which is provided by (SPSS 23) the value of **R** and **R²** for the model which has been derived. Due to one prediction, the value of **R** is .107 which shows a simple correlation between Facebook and Physical activity. The value of **R²** is .011, which means the Facebook usage for 11% of the variation in physical activity.

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.413	1	1.413	2.869	.092 ^a
	Residual	122.163	248	.493		
	Total	123.576	249			

a. Dependent Variable: mean_PA

b. Predictors: (Constant), mean_FBU

Table-4.4: The ANOVA table of the output (SPSS 23) represents the report an analysis of variance. From these two values, the average sum of the square can be calculated by dividing the sum of square through the associated degree of freedom. **F**-ratio is calculated using the equation and the associated significance value. As per these data, **F** is 2.869, which is significant at $p > .001$ (because the value in the table of 4.4 significance is greater than .001). This result shows that there is greater than a 0.1% possibility that an **F**-ratio this small would occur if the H_0 were wrong.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.456	.187		13.122	.000		
mean_FBU	.117	.069	.107	1.694	.092	1.000	1.000

a. Dependent Variable: mean_PA

Table-4.5: In this table value of the regression of coefficient b represent the change in the outcome resulting from a unit change in the predictor and that if a predictor is having a significant impact on our ability to predict the outcome, then this b should be different from 0.

Charts

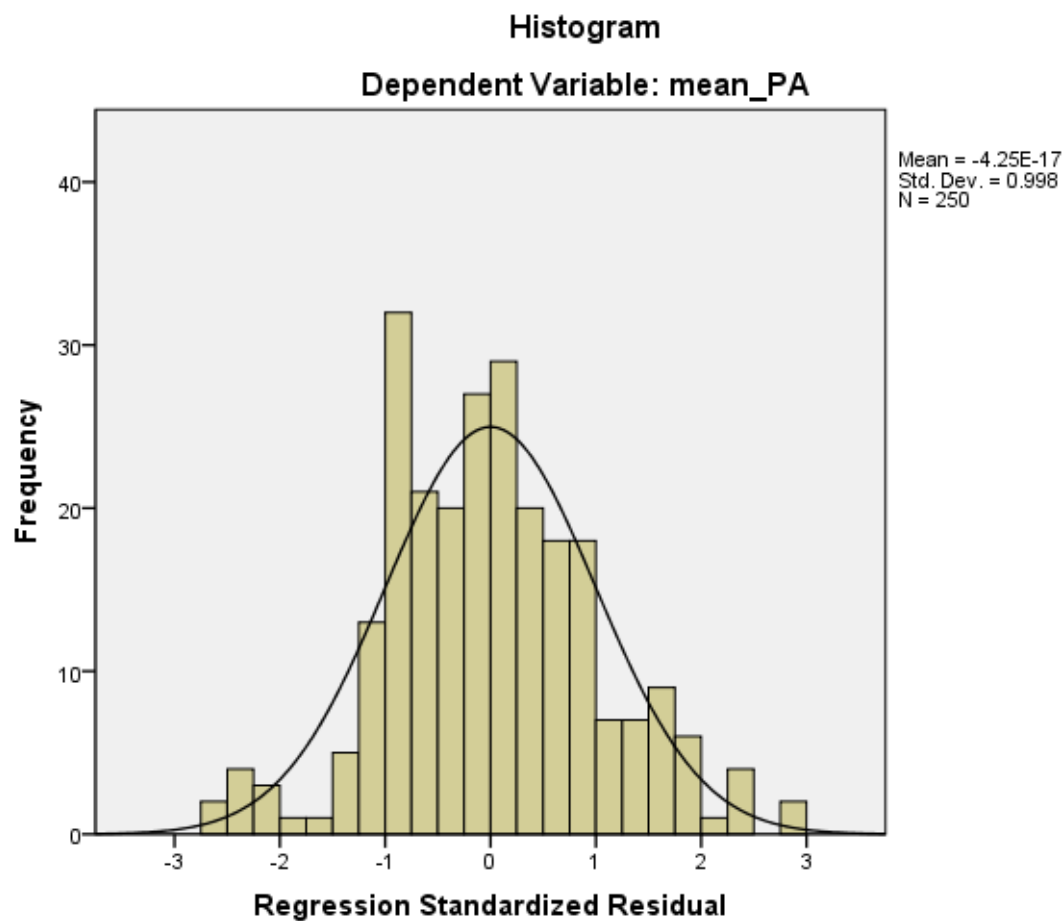


Figure 03: This diagram shows the dependent variable mean of P.A is $-4.25\text{E-}17$, SD is 0.998. Histogram diagram in both sides of regression standardized minimum side and the maximum rather than 0.

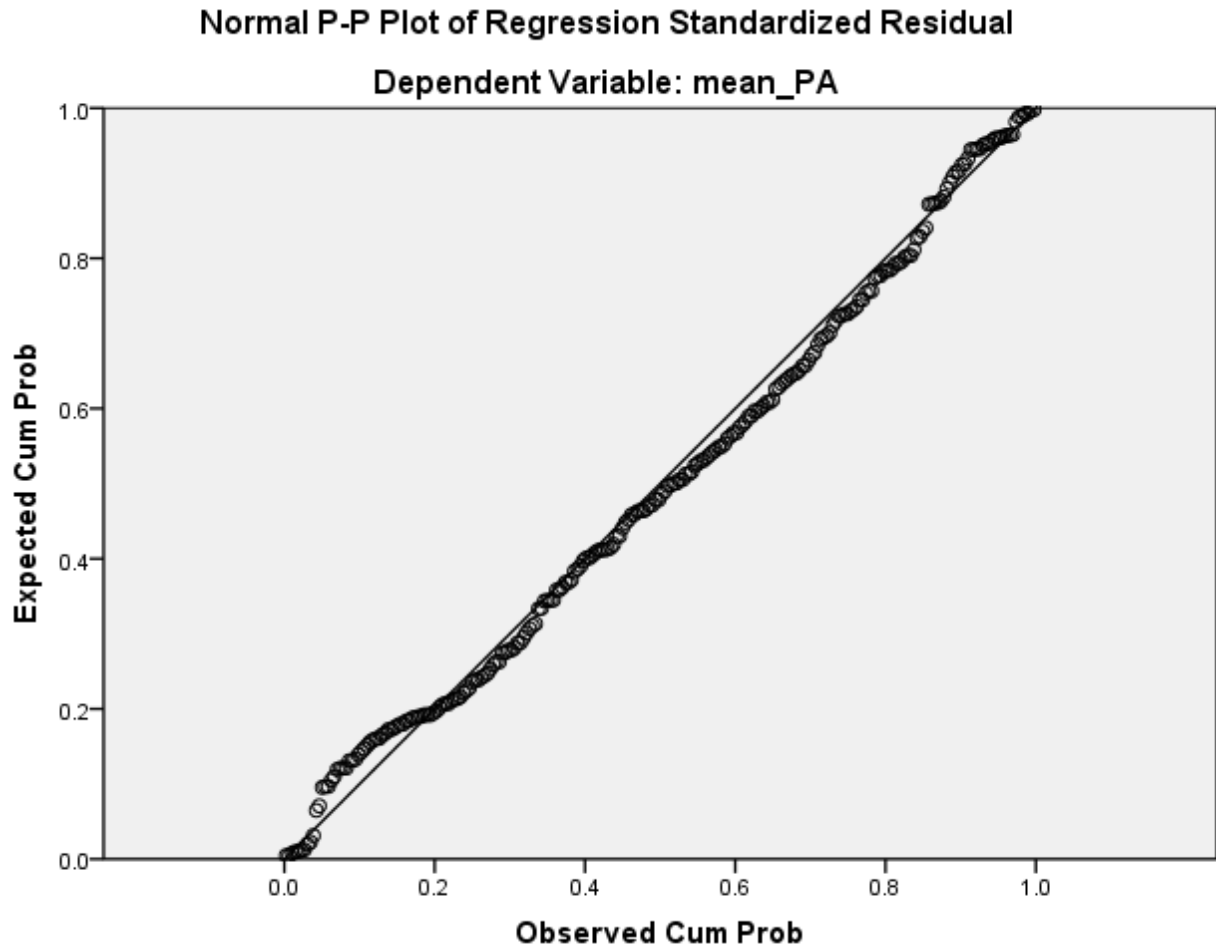


Figure 04: In this plot, the data can perfectly normal distribution would fall perfectly along the 45-degree line. The points below the line display where the observed value is greater than normal, and that point present above the line shows where the observed value is less than normal.

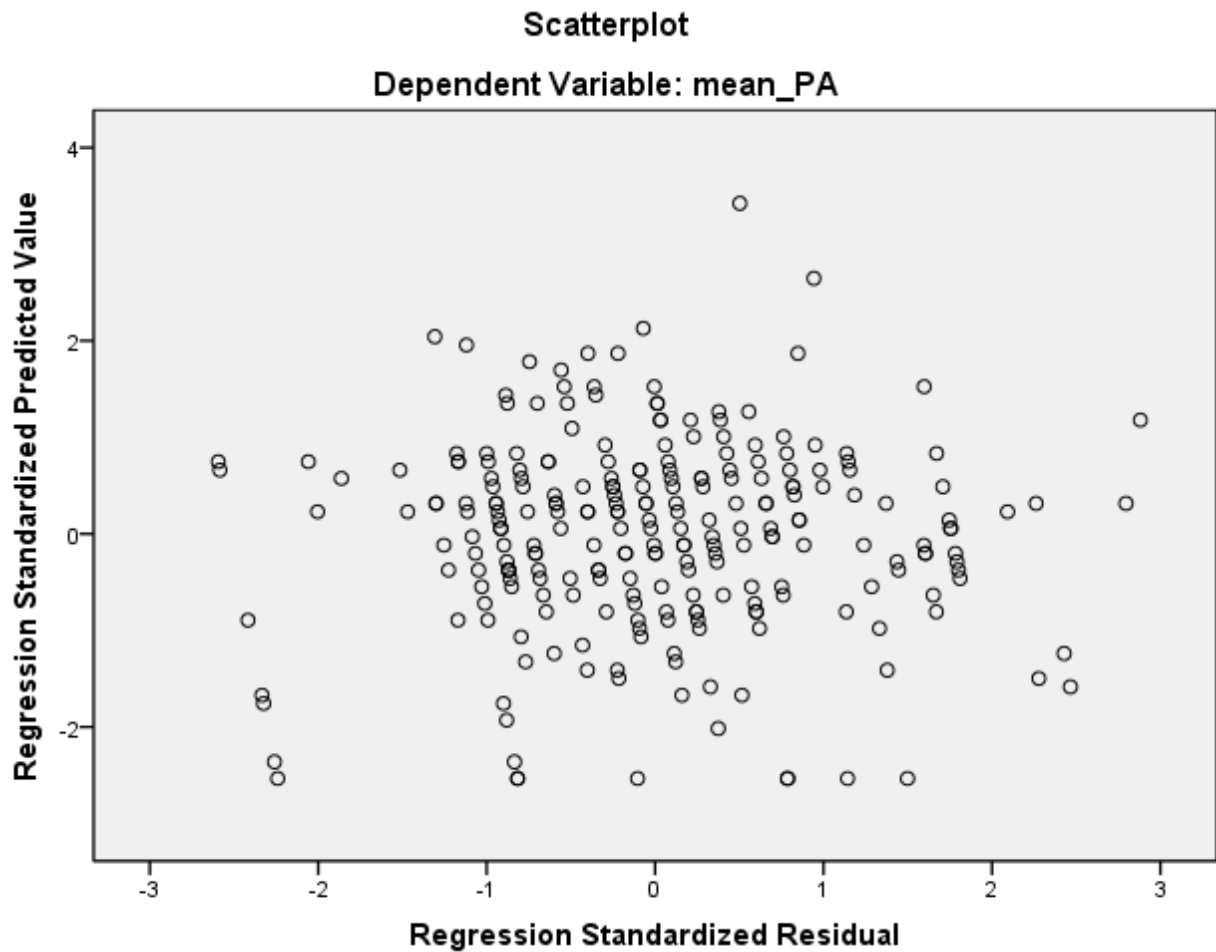


Figure 05: A scatter plot can be produced using the procedure disclosed earlier or substitute, Graphs and interactive commands can be used. It is the benefit when plotting scatter plot for regression, as the regression equation can be shown on the chart.

Discussion:

Facebook is the leading social platform in the world, with over 2.89 billion month-to-month active consumers, In the U. S., Facebook is responsible for over 71% of all social networking visitors a month. Because of its excellent mobile connectivity and mobile communication features, Facebook's popularity is not just dependent on its social network. Facebook messenger has become one of the world's most popular mobile messenger programs since it was introduced as a stand-alone chat app in 2011(Statista Research Department, Jul 29, 2021). The social platform under consideration has been among the major sources of interaction for adolescents in their leisure time, and prior research has shown that it has a detrimental impact on the academic performance of young people. In Pakistan, Facebook is

indeed a highly engaging commonly acknowledged, and used social networking site. This study was intended to address the association between usage patterns of Facebook among the students of faculty of Allied Health Science and their physical activity.

As a result of these findings, it is now fair to infer that overuse of Facebook can develop addiction and have an adverse consequence on young people's behaviors. The study in hand intended to examine the usage of Facebook and its nature of impact on the physical activities of young adults and It is not unexpected that participants had more negative attitudes on the usage of social media. The result shows that there is a greater than a 0.1% chance that the independent variable (F.B) affects participation in physical activity. The study reveals the limited benefits excessive use of Facebook is a little effect on participation in physical activity. Facebook obsession is strongly correlated with depression and Facebook usage. There was a strong link between social media usage and self-esteem and self-perception, according to the research. The health influence of social media on young people was highest on mental health, especially in the areas of self-esteem and well-being (Richards D, Caldwell PH, Go H, 2015)

Teenagers invest far too much time on social media throughout the day. Social networking has a detrimental influence on young people's academic performance and sleeps patterns. To address this problem, it is important to improve the understanding of young people about the risks hiding on the Internet and create educational initiatives (Wojdan, W., WDOWIAK, K., WITAS, A., DROGOŃ, J. and BRAKOWIECKI, W., 2021)

Conclusion:

Youth is a precious asset in every community. It is critical that the society's adolescents be creative and use their time properly since this benefits the society both in the long and short term. It is concluded that our young, particularly university students, are highly engaged users of Facebook. Even the objectives for which they use Facebook are not particularly useful; they spend the majority of their time establishing friends, chatting, discussing, and publishing various items on the media. The use of Facebook and other social media sites has both negative and positive effects on education, social interaction, and health-related activities. The more the use of Facebook the limited time was spared for physical activities. This study also determines that Facebook use can interfere with other aspects like social educational, behavioral and economic, etc. It is strongly recommended that educational establishments

and the government authorities should adopt some practical efforts to improve the situations of young.

Recommendations:

The future venue for the researcher may be to study the effects of Facebook usage on clubs athletes, patients, parent's perception, physical activity promotions, sports promotions. In this study, the target population was students; future researchers can assess the effects on other populations. Further, future studies can be conducted on the use of the social media platforms like YouTube, Whats-app, Twitter, Instagram, etc.

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