

THE EFFECT OF SOCIAL MEDIA ADDICTION ON STUDENTS' SELF-CONFIDENCE

O EFEITO DO VÍCIO EM REDES SOCIAIS NA AUTO-CONFIANÇA DOS ESTUDANTES

Rashid Jabbarov

ORCID 0000-0002-0623-27721

Doctor of psychology, Professor
Department of Social and Pedagogical Psychology
Baku State University
Baku, Azerbaijan
rashid.cabbarov@mail.ru

Aysel Abdullayeva

ORCID 0009-0006-5693-2992

Psychology student of SABAH Groups
Baku State University
Baku, Azerbaijan
ayselabdullayeva44@icloud.com

Nuray Mammadova

ORCID 0009-0003-7757-7158

Psychology student of SABAH Groups
Baku State University
Baku, Azerbaijan
memmedovanuray35@gmail.com

Fidan Akifzade

ORCID 0009-0009-6808-0960

Psychology student of SABAH Groups
Baku State University
Baku, Azerbaijan
fidanakifzada@gmail.com

Nazrin Mammadova

ORCID 0009-0007-3486-6717

Psychology student of SABAH Groups
Baku State University
Baku, Azerbaijan
nazrinmammadova90@gmail.com

Abstract. This article explores how social media usage affects individuals' self-confidence. With advancing technology, more people are dedicating significant time to social media platforms. During this time, users often follow others and compare themselves, which can influence their self-perception. The research aims to investigate whether there is a correlation between social media usage and self-confidence among students from different disciplines at Baku State University. The researchers used the Bergen Social Media Addiction Scale and the Self-Confidence Scale during the research. The study showed that, if $p > 0.05$, the results can be considered as normally distributed. If, $p < 0.05$, the dependence between quantities is significant; if greater, the dependence is insignificant. According to the research findings, the significance level is 0, which means it is less than 0.05. In conclusion, there is a significant correlation between social media addiction and self-confidence.

Key Words: social media addiction, internet, psychological issues of self-confidence, positive self-confidence

Resumo. Este artigo explora como o uso de mídias sociais afeta a autoconfiança dos indivíduos. Com o avanço da tecnologia, mais pessoas estão dedicando um tempo significativo às plataformas de mídia social. Durante esse tempo, os usuários geralmente seguem outros e se comparam, o que pode influenciar suas autopercepções. A pesquisa visa investigar se há uma correlação entre o uso de mídias sociais e a autoconfiança entre alunos de diferentes disciplinas na Baku State University. A Bergen Social Media Addiction Scale e a Self-Confidence Scale foram usadas durante a pesquisa. O estudo mostrou que se $p > 0,05$, os resultados podem ser considerados normalmente distribuídos. Além disso, se $p < 0,05$, a dependência entre as quantidades é significativa; se maior, a dependência é insignificante. De acordo com os resultados da pesquisa, o nível de significância é 0, o que significa que é menor que 0,05. Em conclusão, há uma correlação significativa entre o vício em mídias sociais e a autoconfiança.

Palavras-chave: vício em mídias sociais, internet, questões psicológicas de autoconfiança, autoconfiança positiva

1. INTRODUCTION

Towards the late 1990s, the internet became very popular, and websites began allowing users to create content. In 1997, the first social networking site, SixDegrees.com, was launched. Following this, many social networking sites like Friendster and MySpace began to be used starting in 2002. Since then, the number and usage of social media platforms have spread



globally (Mahadi et al., 2016). If we look at psychological literature, there is no precise definition of the concept of social media. Although there is no such definition, we often encounter several approaches. Social media is a group of internet-based applications that have ideological and technological foundations and enable the creation and sharing of content by the user (Gikas and Grant, 2013; Tess, 2013). Social media is the latest online communication tool that allows users to create public or private profiles to connect with people in their networks (Kirschner and Karpinski, 2010). Social media is a comprehensive and umbrella concept (Karikari et al., 2017: 70). Under this umbrella, there is a long list of social media tools ranging from the most used to the least used, such as Facebook, Twitter, YouTube, WhatsApp, Facebook Messenger, Instagram, LinkedIn, Blogs, WeChat, Tumblr, Google+, WordPress, Qzone, Flickr, Ning, Skype, Symbaloo, Diggo, ZuiTube, Picasa, WeeWorld, Webkinz World, Club Penguin, and PlayStation Network. According to the "Digital in 2017 Global Overview" report published by We Are Social (2017), while there are 3.77 billion internet users in the world today, 2.80 billion of this population are active social media users (We Are Social, 2017).

Social media can be defined as a means of digital communication. It socializes human life, encompassing global village interactions and interactions on various scales. Different types of people and age groups, especially young people, have become a growing trend related to social media. Social media has both positive and negative effects on the lives of young people. Asad Ali et al. (2016) found that social media plays an important role in providing students with learning and work opportunities in the field of education (Asad Ali et al., 2016).

The usage of social media among teenagers and young adults is rapidly increasing. Research shows that the "constant use" rates have doubled from 2015 to 2018 (Anderson & Jiang, 2018; Lenhart, 2015). Studies indicate that millions of users spend approximately 22 percent of their daily online time on this. Social media sites are primarily composed of people aged between 10 and 30 years. Student youth are more likely to fall victim to social networks (Rawath, 2019).

Despite its advantages, social media also presents several drawbacks. Privacy concerns arise because of rapid dissemination of personal information. Additionally, issues such as habituation, addiction, and personality challenges may emerge. Looking ahead, these intensive usage patterns may pose difficulties in fulfilling responsibilities and affect individuals' lives.

The internet offers anonymity and the convenience of ending communication at any time, providing comfort and empowerment to users. It serves as a socializing platform where individuals who struggle with real-life interactions can form connections. It fosters a sense of belonging through virtual identities, allowing individuals to present idealized or diverse aspects of themselves. This ability to control and create within an unrestricted space offers a sense of freedom and autonomy, albeit with weak social constraints (Ögel et al., 2017).

Given its prominent role in daily life, social media has become a platform where people spend considerable time comparing their virtual lives with reality, sometimes leading them to immerse themselves in a virtual world (Akıncı and Bat, 2010). In recent years, the portrayal of ideal beauty on social media has contributed to feelings of inadequacy among followers. This perception may lead individuals to question their worth and compare themselves unfavorably to those depicted on social media platforms. Over-sharing personal details can exacerbate these feelings, contributing to decreased self-confidence (Holmqvist and Frisén, 2012).

Despite the existence of systematic studies in this field, there are few laconic studies on our chosen research topic. In this regard, the main goal of our research is to investigate the possibilities of self-confidence influence of social media and to determine the direction of this influence. We believe that finding the relationship between self-confidence and social media can be a methodological basis for future research in this area.

2. LITERATURE REVIEW

Research on the influence of social media on self-confidence has been unilaterally explored. In psychological literature, confidence is understood primarily as a belief and emotion-based concept that considers expectations and behaviors (Govier, 1993). An individual begins to gain a sense of confidence from the moment they open their eyes. Studies show that confidence is not something people are born with, **but something** that gradually forms since infancy (Mulder & Lauster, 2010). People exert effort to achieve specific goals, and the success or failure resulting from these efforts positively or negatively affects their sense of confidence (Soner, 1995). In much of society, confidence is accepted as a valuable personal attribute (Benabou & Tirole, 2002).

According to research and hypotheses put forward, confidence plays a significant role in a person's psychological well-being, ability to succeed, and ability to be happy (Soner, 2000). A person with high confidence is someone who can accept the conditions they cannot change, have the courage to change the conditions they **can** and distinguish between what they can and cannot change (Soner, 2000). A person with low self-confidence needs the approval and admiration of others to feel successful, fears failure, avoids **competition** and is closed to criticism (Turan-Bashoglu, 2007).

Research indicates that today's university students are often recognized as "digital natives" due to their exposure to and familiarity with rapid advancements in interactive technologies (Dwumah Manu et al., 2023). Compared to other demographic indicators, bachelors students demonstrate a higher inclination towards using social media, with platforms like WhatsApp and Facebook prevailing among them. Spending more than three hours daily on social media, using it for entertainment, staying updated with the latest news, and socializing have become routine activities for undergraduates (Bhandarkar et al., 2021; Promsri et al., 2019).

One of the primary functions of social media, including Facebook, is to facilitate users' exploration and examination of public or friends' profiles and to express their own opinions and thoughts through comments, thereby enabling them to understand others' perspectives on their personal lives (Muisse et al., 2009; Boyd and Ellison, 2007). Others' opinions and comments from both friends and the public exert a significant influence on individuals' identities.

Heatherton and Polivy (1991) argue that self-esteem can be inherently stable or variable in nature, meaning its development may require time for some individuals while for others, it can fluctuate based on tendencies and daily events. While negative feedback may decrease individuals' self-esteem, positive feedback significantly enhances it (Valkenburg et al., 2006).

Certain researchers have identified key advantages of social networking sites. For example, Facebook provides users with a sense of freedom and intimacy, increases their trust levels, and motivates them during difficult times (Virgina, Stephen, and Muema, 2015). Additionally, it helps introverted students who find it difficult to initiate conversations by reducing social capital, offering forums to overcome communication limitations, and fostering strong relationships (Ellison, Steinfield, & Lampe, 2007).

Amichai, Hamburger, and Winicki (2010) claim that many introverts establish relationships through social networking sites because they often face difficulties during face-to-face communication. Many individuals use these platforms to satisfy their affiliation needs and are driven primarily by the desire to engage in social comparisons between themselves and others (Schachter, 1959).

Affiliation needs are managed by many social networking sites. Several studies claim that these platforms encourage **various** individuals to engage in social comparisons with others. They are based on social classes, roles, beauty, popularity, wealth accumulation, and other social functions (Jan et al., 2017).

People engage in two types of comparisons on social networks: upward comparison and downward comparison. The former involves comparing oneself with those who are superior and possess positive qualities, while the latter involves comparing oneself with those who are inferior and have negative qualities (Wills, 1981; Wood, 1989)

Lockwood and Kunda (1997) argue that upward social comparisons can inspire individuals because they focus attention on behaviors and attitudes aimed at emulating the goals of comparison targets. However, it has been observed that upward comparisons can also lead people to feel inferior and make negative evaluations about themselves (Morse & Gergen, 1970). As a result, such upward comparisons often have a negative impact on individuals' self-esteem (Vogel, Rose, Roberts, & Eccles, 2014). Many researchers have found that frequent use of Facebook can lead to depression and reduced well-being because numerous users do not use it for their purposes. They use it to alleviate loneliness, but as a result, they are less satisfied with their lives (Fainstein et al., 2013).

Chou and Edge (2012) concluded that frequent users of Facebook tend to strongly believe that others whom they barely know in real life lead happier, more successful, and more glamorous lives. Such perceptions about others' lives can lead to depression. According to Pantic (2014), distress, depression, psychotic symptoms, and low self-esteem are likely outcomes of social networking sites, especially Facebook.

Chen & Lee (2013) argue that the use of Facebook is directly related to psychological distress in individuals and undermines their self-esteem. They suggest that Facebook contributes to an increase in cyberbullying by facilitating the spread of rumors and the uploading of inappropriate photos without permission. Anxiety, depression, and low self-esteem are symptoms and consequences of cyberbullying (Moreno & Kolb, 2012). However, some researchers disagree and claim that overall, self-esteem is influenced not just by the internet but specifically by social networking sites (Valkenburg, Peter, & Schouten, 2006).

3. METHODOLOGY

Design

The primary goal of this study is to find a correlation between authentic and social media platform interactions and their impact on students' levels of influence. The study employed qualitative and quantitative methods and measurements to achieve this aim. The approach used in this research was to enhance integrative aspects of personality, such as self-confidence and social skills, through social media. Furthermore, the study aimed to determine if a variable-centered approach could explain the expected relationship between self-confidence and the use of social media. Strengthening students' self-esteem through social media may create a sense of security in offline environments, thereby encourage positive social interactions, therefore a foundation for strong interpersonal skills.

Participants

For this study, students from various academic disciplines were included through random sampling. A total of 126 students participated, with 66 being women (aged 22-38) and 60 men (aged 20-62), with equal representation from each course II to IV. 96.80% of students regularly attended classes. They were informed through various channels and provided consent before participating in the investigation.

Instruments

Many methodologies were used for this study. One of them is the Adolescent Social Media Addiction Scale in Turkish, examining the correlation between depression and anxiety (Demirchi, 2019). Another method utilized was the Bergen Social Media Addiction Scale, developed by Andreassen and colleagues, which comprises six items assessing addiction

criteria such as mental preoccupation, mood swings, tolerance, conflict, and unsuccessful attempts to cut down on social media use. Responses were rated on a Likert scale ranging from 1 (very rarely) to 5 (very often), with total scores ranging from 6 to 30 (Demirçi, 2019). The internal consistency of the original scale was reported as 0.88. Additionally, the study incorporated a self-esteem scale consisting of five questions, with scores ranging from 5 to 25.

Data collection

In September 2023, research was conducted among second to fourth-year students from various faculties at Baku State University. The study began with a validated empirical approach to the issue, obtaining permission from participants for documentary data collection. The research findings were analyzed using SPSS (Statistical Package for the Social Sciences), focusing on normal distribution calculations derived from scores on the Social Media Addiction Test. We believe that qualitatively analyzing the connection between social media usage and self-esteem will delineate pathways for shaping social interactions and personal achievements.

Ethical criteria

Before conducting this study, the research was reviewed and approved by an established ethics committee. International ethical principles of beneficence and nonmaleficence were strictly adhered to throughout the study to ensure the well-being of all research participants. Participants were informed that the study's results aimed to benefit them and were conducted with no intention of causing harm under any circumstances. Furthermore, participants' physical and mental well-being was safeguarded throughout the study, as outlined by Fouka and Mantzourou (2011).

4. RESULTS AND DISCUSSION

Initially, during the research, an analysis of the normal distribution based on the scores collected from social media addiction was conducted.

Table 1. Calculation of the normal distribution (based on the score collected from the Social Media Addiction Test)

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Social media addiction	,086	100	,066	,985	100	,328

Table 1 shows that the significance level (Sig) is 0.66. If the degree of significance is greater than $P > 0.05$, then we can say that the results are normally distributed. It is also possible to observe this in the hyperbola curve. At the same time, as can be seen in the other graph, the scores collected by individuals were either above or close to the normal distribution curve.

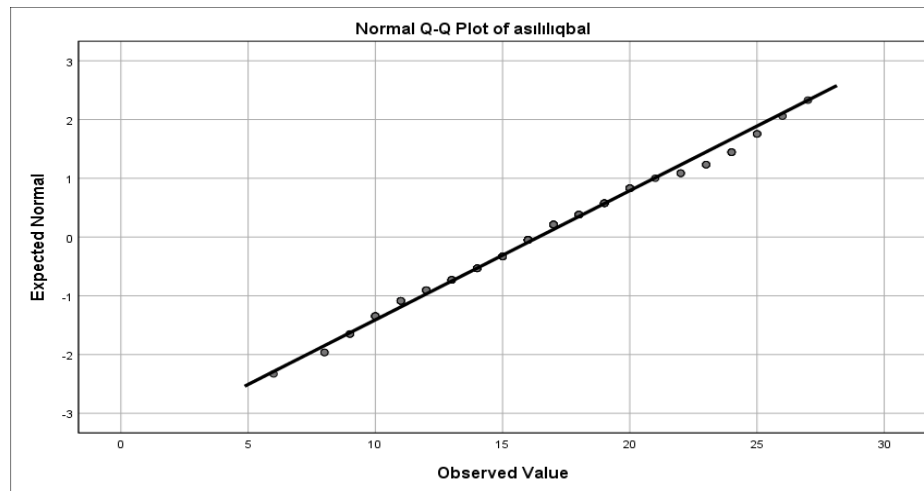


Figure 1. The representation of the score of individuals on the normal distribution curve

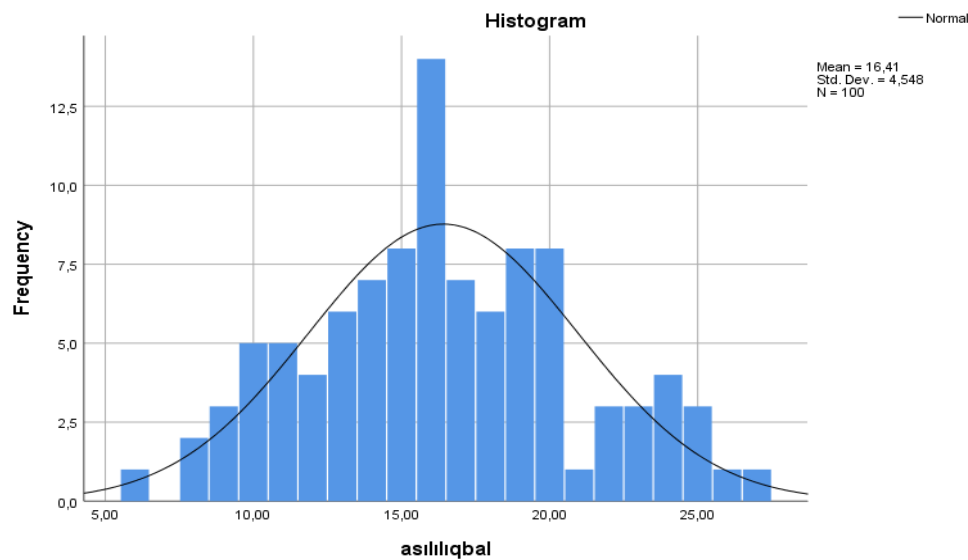


Figure 2. Hyperbola representation of a normal distribution

Table 2. Bergen Social Media Addiction Test Result Indicators

Case		Number	Value
Highest	1	73	27,00
	2	17	26,00
	3	4	25,00
	4	18	25,00
	5	67	25,00
Lowest		1	3
		2	45
		3	37
		4	90
		5	71
			9,00 ^a

Based on the results of the Bergen Social Media Addiction Test, the highest score was 27 out of 30 points. The lowest was 6 points.

Table 3. Calculation of the normal distribution (based on the results of the self-esteem scale)

Correlation of-self-confidence	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
	,078	100	,139	,976	100	,063

As seen in from Table 2, the significance level (Sig) is 0.139. If the significance level is greater than 0.05, then we can say that the results are normally distributed. It is also possible to observe this in the hyperbola curve. Additionally, as can be seen in the other graph, the scores of the individuals were either above or close to the normal distribution curve.

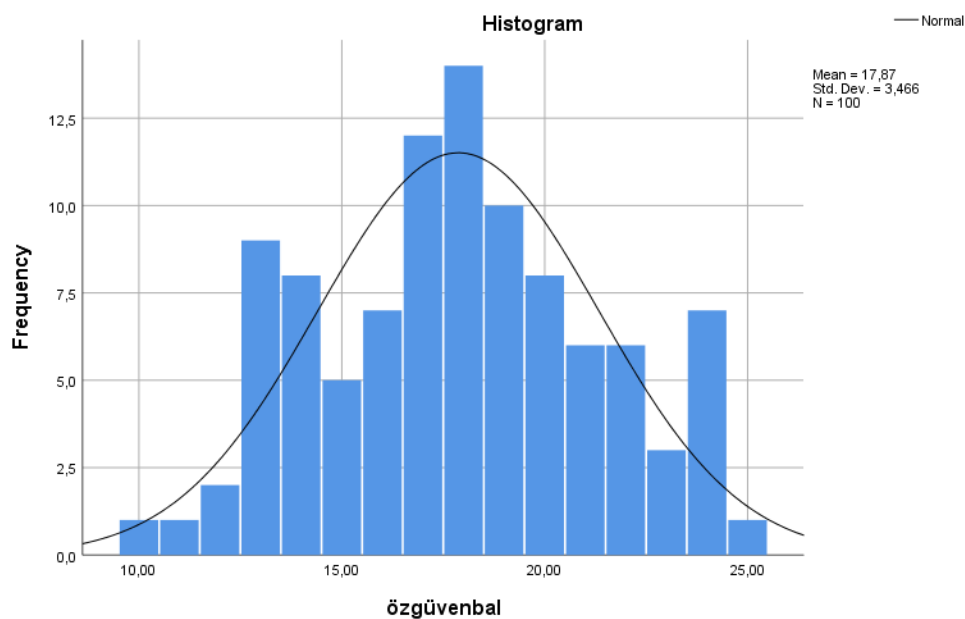
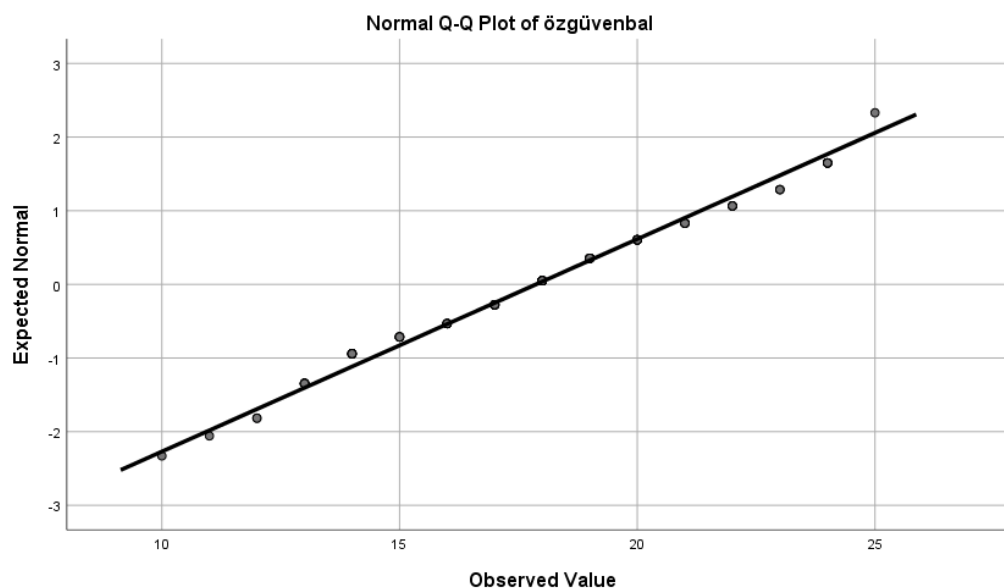
**Figure 3.** Hyperbola representation of the normal distribution of self-esteem scores among individuals**Figure 4.** Illustration of the normality of the self-esteem score distribution

Table 3. Bergen Social Media Addiction Test Outcome Indicators

	Case	Number	Value
Highest	1	27	25,00
	2	4	24,00
	3	12	24,00
	4	37	24,00
	5	48	24,00 ^a
Lowest			1
			64
			10,00
			2
			57
			3
			55
			12,00
			4
			17
			12,00
			5
			100
			13.00 ^a

a. Only a partial list of cases with the value 24,00 are shown in the table of upper extremes.

b. Only a partial list of cases with the value 13,00 are shown in the table of lower extremes.

Table 3 primarily shows the results of the self-confidence scale. The highest value was 25 out of 25 points, and the lowest was 10 points.

Table 4. Correlation indicators between social media and self-esteem (according to Pearson)

		Social media addiction	Self-confidence
Social media addiction	Pearson Correlation	1	,379**
	Sig. (2-tailed)		,000
	N	100	100
Self-confidence	Pearson Correlation	,379**	1
	Sig. (2-tailed)	,000	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

As seen in from Table 4, if the degree of significance (Sig) according to Pearson's criterion is less than 0.05, the correlation between the variables is significant, and if it is greater, the dependence is insignificant. According to the results of the research, the significance level is addition and self-esteem.

Table 5. The degree of correlation between social media and self-confidence according to Spearman's criterion of significance.

		Social media addiction	Self-confidence
Spearman's	Correlation Coefficient	1,000	,379**
	Sig. (2-tailed)	.	,000
	N	100	100
Social media addiction	Correlation Coefficient	,379**	1,000
	Sig. (2-tailed)	,000	.
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 5, the degree of correlation between social media and self-confidence according to Spearman's criterion of significance (Sig) is less than 0.05. According to the results of the research, the significance level is 0, that is, less than 0.05. In conclusion, there is a significant correlation between social media addiction and self-esteem. Thus, the study showed that there is a correlation between social media and self-esteem, and this correlation is significant.

5. DISCUSSION

Our research has shown that there is a significant relationship between social media dependence and various aspects of self-confidence. However, this relationship is not directly related to specific aspects of social media and positive self-confidence. Instead, the connections exist in terms of their configurations. Several studies have explored this, resulting in the formation of identity (Aasad et al., 2016; Amichai-Hamburger and Vinitzky, 2010; Bhandarkar et al., 2021; Benabou & Tirole, 2002).

Conversely, some studies have produced completely opposite findings. For instance, research indicates that approximately 88% of social comparisons on Facebook involve upward comparisons, which often lead individuals to feel inferior and evaluate themselves negatively (Morse & Gergen, 1970). Such comparisons, in most cases, have a negative effect on self-esteem (Vogel, Rose, Roberts, et al., 2014).

In the research we conducted across several studies, although there are corresponding compatibility indices, some of these indicate different outcomes. The methodology of this study demonstrates its uniqueness in approach.

6. CONCLUSION

Social media has a significant impact on individuals' self-esteem, which operates in two directions. Our study revealed that students with low self-esteem can boost their self-confidence through social media. However, it should be noted that students use these social networking sites for information, communication, and building and maintaining relationships. During these interactions, many people tend to compare themselves with others, which often leads to increased likelihood of low self-esteem, as numerous studies have demonstrated. Comparing oneself upwards can provoke envy towards others and their lifestyles, and can also foster feelings of ingratitude for one's own blessings. Consequently, such comparisons can be detrimental to students' self-concept and have a negative effect on them.

Social media is experiencing dramatic growth in almost every country worldwide. Therefore, individuals, especially students who use Facebook daily, cannot easily abstain from these platforms for extended periods. Parents and teachers should take an active role in guiding students towards enhancing self-esteem, self-awareness, self-actualization, and self-confidence. Parents should also monitor and limit their children's access to these sites, while educating them about the potential negative impacts of using Facebook.

7. LIMITATIONS AND FURTHER RESEARCH

While the present study aligns with others, it does have limitations. These are primarily due to the inclusion of a smaller number of respondents in the selection process and the focus on a single university. The data is based on the answers to the test questions obtained by using the self-confidence test and additional questionnaires, which are necessary to study the influence of social networks, including Facebook, on the self-confidence of the students within the university. At the same time, the randomness of the selection, the lack of a reliable methodology for studying the relationship between self-esteem and social networks, and the diversity of studies in this field complicate the research process.

However, the results obtained in this study can strengthen existing approaches in this field within a specific national-ethnic environment and cultural context. They also offer different perspectives on scientific discourse, suggesting the need for larger sample sizes in quantitative analysis for future research.

REFERENCES

- Akınçı V., Beril ve BAT, Mikail (2010), “Yeni Bir İletişim Ortamı Olarak Sosyal edya: Ege Üniversitesi İletişim Fakültesine Yönelik Bir Araştırma”, *Journal of Yasar University*, S.20 (5), ss.3348-3382.
- Anderson, M., Jiang, J. (2018, May 31). Teens, social media and technology, 2018. Retrieved from <http://www.pewinternet.org/2018/05/31/teens-social-media-technology-2018/>
- Aasad A., Kanwal İ., Aanam İ. (2016). Effects of social media on youth: a case study in university of sargodha. *International Journal of Advanced Research* 4(11):369-372. doi: 10.21474/ijar01/2093
- Amichai-Hamburger, Y. and Vinitzky, G. (2010) Social Network Use and Personality. *Computers in Human Behavior*, 26, 1289-1295. <http://dx.doi.org/10.1016/j.chb.2010.03.018>
- Schachter, S. (1959). *The psychology of affiliation: Experimental studies of the sources of gregariousness*. Stanford Univer. Press.
- Bhandarkar, A. M., Pandey, A. K., Nayak, R., Pujary, K., & Kumar, A. (2021). Impact of social media on the academic performance of undergraduate medical students. *Medical journal, Armed Forces India*, 77 (1): 37–41. <https://doi.org/10.1016/j.mjafi.2020.10.021>.
- Benabou, Roland & Tirole, Jean. (2002). Self-Confidence And Personal Motivation. *The Quarterly Journal of Economics*. 117.871-915. <http://dx.doi.org/10.1162/003355302760193913>
- Başoğlu, Sezin Turan, *Sınav Kaygısı ile Özgüven Arasındaki İlişkinin Erinlik Döneminde İncelenmesi*, Maltepe Üniversitesi, Sosyal Bilimler Enstitüsü, 2007, Yüksek Lisans, pdf.
- Boyd , D. M. , & Ellison , N. B. (2007). Social network sites: Definition, history and scholarship . *Journal of Computer-Mediated Communication* , 13 (1), 210 – 230 .
- Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology*, 60(6), 895–910. <https://doi.org/10.1037/0022-3514.60.6.895>
- Bénabou, R., & Tirole, J. (2002). Self-Confidence and Personal Motivation. *The Quarterly Journal of Economics*, 117(3), 871–915. <http://www.jstor.org/stable/4132491>
- Bhandarkar, A. M., Pandey, A. K., Nayak, R., Pujary, K., & Kumar, A. (2021). Impact of social media on the academic performance of undergraduate medical students. *Medical Journal Armed Forces India*, 77, S37-S41. 10.1016/j.mjafi.2020.10.021
- Best, Paul & Manktelow, Roger & Taylor, Brian. (2014). Online Communication, Social Media and Adolescent Wellbeing: *A Systematic Narrative Review*. *Children and Youth Services Review*. 41. 10.1016. <https://www.researchgate.net/publication/260756474>
- Chou, H.-T. G., & Edge, N. (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*, 15(2), 117–120. <https://doi.org/10.1089/cyber.2011.0324>
- Chen, W., & Lee, K.-H. (2013). Sharing, liking, commenting, and distressed? The pathway between Facebook interaction and psychological distress. *Cyberpsychology, Behavior, and Social Networking*, 16(10), 728–734. <https://doi.org/10.1089/cyber.2012.0272>
- Dwumah Manu, B., Ying, F., Oduro, D., Antwi, J., & Yakubu Adjuik, R. (2023). The impact of social media use on student engagement and acculturative stress among international students in China. *PloS One*, 18(4), e0284185. 10.1371/journal.pone.0284185
- Demirci, İ. (2019) Bergen sosyal medya bağımlılığı ölçeğinin Türkçeye uyarlanması, depresyon ve anksiyete belirtileriyle ilişkisinin değerlendirilmesi *Anadolu Psikiyatri Dergisi*, 20(1), 15-22. <http://dx.doi.org/10.5455/apd.41585>
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143–1168. <https://doi.org/10.1111/j.1083-6101.2007.00367.x>

Fainstein N., Cohen M. E., Ben-Hur T. (2013). Time associated decline in neurotrophic properties of neural stem cell grafts render them dependent on brain region-specific environmental support. *Neurobiol. Dis.* 49, 41–48. 10.1016/j.nbd.2012.08.004

Gikas, J., Grant M., (2013). Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. *The Internet and Higher Education*, P(18-26) <https://doi.org/10.1016/j.iheduc.2013.06.002>

Govier, Trudy. 1993. "Self-Trust, Autonomy, and Self-Esteem." *Hypatia* 8 (1), 99-120.

Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology*, 60(6), 895–910. <https://doi.org/10.1037/0022-3514.60.6.895>

Holmqvist, K., & Frisén, A. (2012). "I bet they aren't that perfect in reality:" Appearance ideals viewed from the perspective of adolescents with a positive body image. *Body Image*, 9(3), 388–395. DOI: 10.1016/j.bodyim.2012.03.007

Rose, & Hands, Beth & Larkin,. (2012). Reliability and Validity of the Self-Perception Profile for Adolescents: An Australian Sample.. *Australian Journal of Psychology*. 64. 92-99. 10.1111/j.1742-9536.2011.00031.x.

Jan, M., Soomro, S. A., & Ahmad, N. (2017). Impact of Social Media on Self-Esteem. *European Scientific Journal, ESJ*, 13(23), 329. <https://doi.org/10.19044/esj.2017.v13n23p329>

Khang, Hyoungkoo & Ki, Eyun-Jung & Ye, Lan. (2012). Social Media Research in Advertising, Communication, Marketing, and Public Relations, 1997–2010. *Journalism & Mass Communication Quarterly - JOURNALISM MASS COMMUN.* 89. 279-298. <https://doi.org/10.1177/1077699012439853>

Kirschner, P.A. And Karpinski, A.C. (2010). Facebook and academic performance. *Computers in Human Behavior*, 26(6), 1237-1245. <https://www.learntechlib.org/p/39544>

Karikari, S., Frimpong, K. O. ve Frimpong, N. O. (2017), "Evaluating Individual Level Antecedents And Consequences Of Social Media Use in Ghana", *Technological Forecasting & Social Change*, 123, 68-79.

Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology*, 73(1), 91–103. <https://doi.org/10.1037/0022-3514.73.1.91>

Lamberton, C., & Humphreys, A. (2022). Social media: From classic psychological theories to new opportunities. In L. R. Kahle, T. M. Lowrey, & J. Huber, *APA handbook of consumer psychology*. 489–511. <https://doi.org/10.1037/0000262-021>

Lenhart, A. (2015) *Teens, Social Media & Technology Overview 2015* [Internet]. Pew Research Center: Internet, Science & Tech. <https://policycommons.net/artifacts/619187/teens-social-media-technology-overview-2015/1600266/>

Mahadi S. R., Nurul N. J., Rozarina J., Intan N.F., Muhammad F. (2016). The Impact of Social Media among Undergraduate Students: *Attitude. Procedia - Social and Behavioral Sciences* 219:472-479 DOI: 10.1016/j.sbspro.2016.05.022

Morse, S., & Gergen, K. J. (1970). Social comparison, self-consistency, and the concept of self. *Journal of Personality and Social Psychology*, 16(1), 148–156. <https://doi.org/10.1037/h0029862>

Moreno, M.A., & Kolb, J.N. (2012). Social networking sites and adolescent health. *Pediatric clinics of North America*, 59 3, 601-12, vii .

Mulder, C. H., & Lauster, N. T. (2010). Housing and Family: An Introduction. *Housing Studies*, 25, 433-440. <https://doi.org/10.1080/02673031003771109>

- Muise A, Christofides E, Desmarais S. (2009). More information than you ever wanted: does Facebook bring out the green-eyed monster of jealousy? *Cyberpsychol Behav.* 12(4):441-4. doi: 10.1089/cpb.2008.0263. PMID: 19366318.
- Ögel, K., Çelikay, H. ve Başabak, A. (2017). Aile Profil Bağımlılık İndeksinin geliştirilmesi, geçerlik ve güvenilirliği. *Klinik Psikiyatri*, 20, 255-262.
- Pantic, I. (2014). Online social networking and mental health. *Cyberpsychology, Behavior, and Social Networking*, 17(10), 652–657. <https://doi.org/10.1089/cyber.2014.0070>
- Promsri, C., Chaigusin, S., & Tupmongkol, T. (2019). Social media usage behaviors: Evidence of college students from a selected university in Thailand. *Cross Current International Journal of Economics, Management and Media Studies*, 1(5), 108-113. 10.36344/CCIEMMS.2019.v01i05.002
- Rawath, S. Sushma and Satheeshkumar, Dr.R. and Kumar, Venkatesh. (2019). A Study on Impact of Social Media on Youth (January 27, 2019). *Journal of Management (JOM)*, 6(1), 89-96, <https://ssrn.com/abstract=3526175>
- Raudzah, Sharifah & Jamaludin, Nurul & Johari, Rozarina & Fuad, Intan. (2016). The Impact of Social Media among Undergraduate Students: Attitude. *Procedia - Social and Behavioral Sciences*. 219. 472-479. <https://doi.org/10.1016/j.sbspro.2016.05.022>
- Schachter, S. (1959). *The psychology of affiliation: Experimental studies of the sources of gregariousness*. Stanford Univer. Press.
- Soner, Y. (2000). Effects of an Educational Computing Course on Preservice and In-Service Teachers: A Discussion and Analysis of Attitudes and Use. *Journal of Research on Computing in Education*, 32, 479-492. <http://dx.doi.org/10.1080/08886504.2000.10782293>
- Tess, P.A. (2013) The Role of Social Media in Higher Education Classes (Real and Virtual)—A Literature Review. *Computers in Human Behavior*, 29, A60-A68. <http://dx.doi.org/10.1016/j.chb.2012.12.032>
- Turan-Başoğlu, S. (2007). *Sınav kaygısı ile özgüven arasındaki ilişkinin erinlik döneminde incelenmesi*. (Yayınlanmamış Yüksek Lisans Tezi). Maltepe Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul.
- Valkenburg, P. M., Peter, J., & Schouten, A. P. (2006). Friend Networking Sites and Their Relationship to Adolescents' Well-Being and Social Self-Esteem. *CyberPsychology & Behavior*, 9(5), 584–590. <https://doi.org/10.1089/cpb.2006.9.584>
- 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(4), 206–222. <https://doi.org/10.1037/ppm0000047>
- Virginia W. Nyagah , Asatsa Stephen and Jonathan Muema Mwanja (2015). Social Networking Sites and Their Influence on the Self Esteem of Adolescents in Embu County, Kenya. *Journal of Educational Policy and Entrepreneurial Research (JEPER)* 2408-6231.2, 1, 87-92
- 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(4), 206–222. <https://doi.org/10.1037/ppm0000047>
- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin*, 106(2), 231–248. <https://doi.org/10.1037/0033-2909.106.2.231>
- Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, 90(2), 245–271. <https://doi.org/10.1037/0033-2909.90.2.245>
- We are Social (2017). Digital, Social & Mobile in 2017. *Special Report*. Available 30/05/17 <https://wearesocial.com/sg/special-reports/digital-social-mobile-2015>