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RELATIONSHIP BETWEEN FACEBOOK ADDICTION AND

NARCISSISM AMONG UNIVERSITY STUDENTS

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ABSTRACT

The aim of the study was to investigate the relationship between Facebook addiction and narcissism among university students. It was also aimed to investigate gender differences in facebook addiction among university students. A sample of 200 university students with age ranging from 18 to 28 years were approached from multiple universities of Mardan. The data was collected in time period of four months. The data was analyzed through the SPSS 26. The Bergen Facebook Addiction Scale (BFAS) by Andreasen et al., (2012) and Hypersensitive Narcissism Scale (HSNS) by Hendin and Cheek (1997) were used as data collection tools. It was hypothesized that there will be a significant positive relationship between facebook addiction and narcissism among the university students. As a result of Pearson product moment correlation analysis, a significant positive relationship was found between facebook addiction and narcissism among the university also revealed that there are no significant gender differences in facebook addiction. It was found that facebook provides the opportunity to satisfy the need of admiration without actually forming any deep ties with others.

Key words: Facebook Addiction, Narcissism, university students, Bergen Facebook Addiction Scale, Hypersensitive Narcissism Scale

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INTRODUCTION

Social networking sites are now trending as the most used sites among the adults throughout the world. These sites help in profile presentation and creation of social contact with others (Ellison, 2007). Facebook is most commonly and popularly used social networking site, mostly among youth including students of every educational level in Pakistan (Brech, 2019; Tariq et al., 2012). It has been ranked as the third highest visited website with an average of 57 seconds to 10 minutes of time of its users being spent on it (Alexa, 2018). It has been shown to be used by over 25 million of Pakistani population (Qureshi, 2016). However, the number of its users is increasing monthly with 35 million of them being active users currently. That is 92.06% of Pakistani population with an access to internet is actively using facebook, making it the most used website in our country. Among the users, 23% are females whereas the remaining 77% are males (Alpha pro, 2018). Due to a lot of its privileges and vast communication, it often becomes a source of addiction among its users (Ellison, 2007). Facebook is an inevitable part of our lives. The first thing that almost everyone nowadays of this 'Internet generation' do after waking up, is checking their facebook accounts (Srikanth, 2020). It was found through an average estimate that Americans tend to spend an approximate of 40 minutes each day on facebook and also that 50% of 18-24-years old visit facebook soon after waking up. (Chakrabortary, 2017).number of Facebook memberships has observed a steady annual increase of 17-20% with every minute 510,000 comments being posted, 293,000 statuses being updated, and 136,000 photos being uploaded (Kuss & Griffith, 2017). In Pakistan over 87.68% of the students are using it currently (Count Global Stats, 2019). A study revealed that undergraduates were facebook's active users. Also, the Availability of internet on phones, tablets and laptops greatly increased its access to students. (Malik & Khan, 2018).

Similarly, this site also provides a base for its users to share their profiles publicly and a highly controllable environment/base for personal presentation and management of behavior, which when liked or commented on, can cause a need for constant admiration (Mehdizadeh, 2016). Leading or making the users more prone towards narcissism, as more and more of its use increases the need to be admired, be attractive, and to be treated specially having power and importance by others ("Narcissism", 2019; Mehdizadeh, 2016). Thus, indicating a relationship between facebook addiction and narcissism (Malik & Khan, 2018). Most of this behavior is shown by individuals from age of 18-28 usually whom are educating at the college and university level (Schwartz, 2010; Mahdizadeh, 2016).

This study will help to enrich information on facebook addiction and narcissism in the city of Mardan, Pakistan. It will also help to bring under consideration the addictive use of facebook and its impact on its youth.

Facebook Addiction

Social networking sites are on the trend nowadays and the most popular source of communication and interaction among the youth. These sites are the fame of internet in this modern time. Among these sites, one of the popularly used is facebook, an online community/site where anyone with an email address is welcome and is allowed to upload variety of photographs regarding themselves and their surroundings (Nations, 2019). To post different comments on posts of others, give likes or pokes on others' comments or profiles, and have live chats with their friends or with the member of a group they have joined as it too allows its users to join any group of their interest which might be for the purpose of fun/ entertainment, knowledge or for socializing, to play games or to plan major events (Comrade, 2017). Facebook was launched in 2004 as a school project by Mark Zuckerberg and his Associates with a limited use of it at that time, however it now has over 2.1 billion users worldwide, along with it being present in over 70 different languages, and over 60% of its users are daily loggers (Magrauf, 2018; Gosling, 2007).

Facebook includes the public features of marketing, groups and event organizations, establishment of pages and online contacts. It also involves a third-party site that helps mostly in interaction in groups from all over the world (Rouse, 2014). The mission of Facebook is to promote power of sharing and communication among people. To make them stay connected to the loved ones and the outside world. To discover different happenings around them and to express and share what's happening to them (Whiteman, 2015).

Facebook has become a widely used source of communication in the world. Mostly young people use it to create and maintain relationships (Clin, 2018). Due to its popularity and excessive use, it has become a source of addiction among the youth (University of Gurdoung, 2017). Facebook is mostly used because it helps (mostly the teens) to voice their thoughts and increase their contacts by sharing it with their friends. It helps them to make their own personal profile (a sense of personal expression) through uploading or sharing their pictures and time to time activities and then get a response on it, making it an easy source of interaction on a broader level. It is also a direct and instant source of communication (Brech, 2019).

Facebook addiction is a sub type of internet addiction and comes under the cyber relationship addiction category which can be identified as the over-involvement in online relationships and is caused by the over use of Facebook (Kuss & Griffith, 2011).

Facebook addiction is the compulsive urge to use Facebook as it has an intensive impact on the users. It is basically the unhealthy desire to check the site constantly and spend hours checking it out. (Goose, 2015). Facebook addiction is basically "a compulsion to dissociate from your real world and go live in the Facebook world" (Srikanth, 2020).

According to therapists, Facebook addiction is a fine line between social networking and social dysfunction (Srikanth, 2020). Facebook addiction is being preoccupied with Facebook and having a hard time trying to log off after its excessive use (Comrade, 2020).

Facebook addiction basically means spending a lot of the time (excessive amount) on Facebook, so much that it interferes with our daily life activities mainly school, work and our relationships both personal and friendships (Walker, 2019). Facebook addiction is the intemperate usage of facebook, with the avoidance of everyday /important activities by its user, along with disruption of their daily routine (Malik & Khan, 2018). It is also cause of decrease in participation of social community work as most of its users spends around 14 minutes of their valuable time daily on it (Walker, 2018; Comscorel, 2011). A person with facebook addiction might continue to use facebook even when that person is burdened with responsibilities and know that it has a destructive effect on their life as they are at a loss of control (Andreasen & Palleson, 2010).

Problem of Facebook addiction arises when people start to consider the Facebook world to be more joyful than the real-life activities and thus ignore their family and obligations. It is the point where offline social life is replaced by the online Facebook use. Facebook is addictive because it gives instant gratification and brings out a sense of reward among its users making them hold on to it (Srikanth, 2020).

Facebook addicts are mainly people who are too busy at sharing every mundane task they are going through at the Facebook, it is all done under the cloak of pretense (Srikanth, 2020). A study was conducted by Tong et al., (2008) in which 82% of young adults and 55% adolescents were found to be regular Facebook users. Facebook addiction is now a days being considered as a Facebook addiction disorder however it has not been included in the DSM V yet as it is not being recognized as a disorder yet (Walker, 2018).

Facebook Addiction is termed as the neglect of personal life due to our mental preoccupation with it. It is our distraction for the current activities and moods hence can be used for mood modifying experiences but with negligence of problem at hand. This maladaptive use of facebook causes difficulties with time management and it's perception along with the working capabilities, educational work, research habits, and friendships (Kuss & Griffith, 2011).

Facebook Addiction is the excessive and compulsive use of the facebook by an individual as a way for mood alteration, which can in return have a negative impact on personal outcomes. A facebook addict might go through a subjective loss of control via the excessive use of facebook despite of the harmful effects it might have on the individual's life (Chakraborty, 2017).

Facebook addiction vary in people on basis of their involvement, some regularly or hourly "check in" in order to be in touch while some might check in more than once a day, mainly being a part of their e-mail and phone checking. Some might spend quite a big portion of time in activities known as self-revealing, creative, social and competitive. Different age groups seem to focus on different activities known to them. Students might often share their worry of assignments or peer gossips in forms of creative videos along with some self-affirming photos. Adults might also post a lot of texts related to daily life contexts and their current state of feeling (Fenichel, 2009).

Facebook Addiction is a condition in which facebook consumes quite a lot of time. The overconsumption of daily time on facebook in fact upsets the healthy life balance of an individual by resulting in reduction of their daily normal life activities and habits. These interactions then are basically following and interacting with others on facebook rather than in real life (Summers, 2011).

Facebook addiction is the feeling of elation while using it. It is the feeling of anger and disappointment when logging off and the loss of sleep because of checking it with no reference to time. It the canceling of appointments because of fear of losing something being updated on the facebook. It is the neglect observed in bathing, eating and other necessary activities so to view facebook. It is the need to check the facebook every hour or even frequently. It is the fear of being "disconnected" from facebook. It is the preference to converse/interact with people online through facebook chats rather than in person. It is the stress and rage observed when a friend request is rejected or ignored by the other person (Abhin, 2012).

Facebook addiction is a deep-rooted inclination towards facebook. Most of time it is like a psychological drug that keeps on functioning in the head at all the time. It is kind of the deep urge to

check up the news feed or any notifications every now and then. The urge to post a status, a picture with the expectations for 'likes' & 'comments. It is the urge to chat with online or facebook friends or even strangers. It is the urge to play online games or send games, requests for the games and sharing of scores. The usage of facebook varies from person to person, but the urge to check up or visit on the website/app frequently cannot be controlled by its addicts. It is due to this uncontrollable urge that the addicts are unable to perform those important tasks and waste their time (Uzair, 2014).

Facebook addiction is spending an immense amount of time on facebook regarding the updates and addressing of the users account, i.e. compulsively checking up of the account or for new updates. Experiencing anxiety when being logged off for even an hour. Missing important tasks due to being lost in the world of facebook with no restriction of time limit and being obsessed with being friends to strangers on facebook (Walker, 2020).

People use facebook for variety of purposes. Some might use it for the sake of receiving attention and admiration from others indicating covert narcissism, a grandiose and supreme belief in the abilities and attractiveness of oneself to the extent of little or no regard for other in order to fulfill their inner insecurities. Sometimes also seen as arrogance and self-centeredness. Others might use it as a source of self-esteem booster (Million, 1998). The positive feedback on the posted material can help boost it and make them confident enough to share more and increase their contacts (Malik & Khan,2015).

Narcissism

Narcissism is immoderate interest and admiration for oneself including their physical appearance (Lexico, 2020). It is the view of an individual about themselves as being special and unique then others. (Million, 1998). It includes self-flattery and arrogance (Wikipedia, 2019). Narcissism is an engorged self-image and fantasy addiction, with an unusually calm composure on behalf of the person experiencing it at the moment (Rhodewait, 2020).

Narcissism the marking/characterizing of oneself with extreme self-centeredness_ overemphasis on oneself. It is characteristic of sense of self-importance and admiration for oneself. In order words it is extreme fascination with one, self-regarded as excessive self-love (Seagal, 2020). Narcissism is basically the pursuit of an individual to seek gratification from the excessive belief in their abilities, attributes and attractiveness (Sheldon et al., 2019). Narcissism is the tendency to think highly of oneself with little or no regard for others. it is the act of being selfish and is way to seek attention (Bhandari, 2018). It is self-involvement to the extent that the individual ignores the needs and wishes of others (Rubenstein, 2019). The individuals with this disorder have an idealized and grandiose image of themselves (Smith & Robinson, 2019). In other words they have fantasies of grandiosity. these individuals expect to receive special treatment as they consider themselves a figure of superiority and owe very little or nothing to others in return (American Psychiatric Association [APA], 2000; Million, 1998).

Narcissistic individuals lack empathy and have almost a craving for admiration. individuals with disorder are very demanding, manipulative, self-centered, and arrogant (Lexico, 2020).

People with narcissistic tendencies love to exhibit themselves to others for constant attention and admiration by them, making it a power up source for their self-esteem (Campbell, 2002). In other words, narcissistic behavior is an individual's obsession with themselves and their appearance (Fleming, 2019). People with this behavior are often very manipulative and demanding in nature (Smith & Robinson, 2019).

One of the narcissists that are more prone to admiration are categorized as the vulnerable narcissists, commonly known as covert narcissism. These individuals are hyper sensitive to even minor details and errors. They are angered quickly even over small things that might be of little importance to other people. they also like to devalue people easily (Greenberg, 2017).

Narcissism can be both overt and covert however overt narcissism involves extrovert activities whereas covert narcissism involves less extroverted (introverted) activities, both of these types however have same end goals admiration and self-importance, marking no significant change in them (Clarke, 2019).

One of the type of narcissists found on the facebook are the vulnerable (covert) narcissists, who are similar to all the other types but are more tempted towards the admiration side as they feel they deserve it the more due to their uniqueness and high creativity (Timothy & Legg, 2019). Facebook, a popularly used social networking site is providing them with this opportunity by helping them create their own profiles upload their photographs or work and share them with others in order to get feedback on it, mostly looking forward to the positive ones (Pampek et al., 2009). The positive comments, likes and shares on their posts and uploads helps them to achieve this admiration and boosts their self-esteem along the way, thus indicating the impact of Facebook on narcissism (Mehdizadeh, 2010).

Covert narcissism also known as vulnerable narcissism is form of narcissism that is characterized by thoughts and fantasies of grandiosity, a sentiment of being better than others and a perception of being right and above others, sensitivity to humiliation, rejection, failure and shame. It is displayed in a passive and indirect manner (Gonzalez, 2020).

Malkin (2019) suggested that the term "covert" can often be misleading. He stated that the term covert is often used to suggest a behavior that when performed by covert narcissist is sneaky or their strive for importance is not as significant as an overt (more extroverted) narcissism. In fact, he reported that the traits of the overt narcissism and the covert narcissism are the same with a same end goal_ admiration. Both of them look at the world with a sense of sense importance and often fantasize about grandeur and success (as cited in Clarke & Gans, 2020).

The covert narcissists crave importance and thirsts for admiration from others, but it can look different to those around them. The covert narcissist gives back-handed compliments, or sometimes purposefully minimize their accomplishments/talents so people will reassurance them the talents they are capable of. These individuals have a fragile sense of self and they use softer tactics to achieve admiration. These individuals use tactic of being victims to another person in order to make that person feel small, the ultimate goal of grandeur (Clarke, 2019).

Individuals with covert narcissism often suffer from low self-esteem and are often emotional/ moody, anxious, bitter and discontented. A closer inspection of these individual showed their need to empower others (Wink, 1991). These individuals have a hypersensitive fixation dependent on the continues attention from others (Esposito, 2015).

These individuals are highly sensitive to humiliation, rejection and failure and are quickly prone to shame. They are in intensive search for glory and power and have an inability to depend on or trust others (Toepttano, 2014).

Covert (introvert) narcissists often take a dismissive stance towards thoughts and feelings of others. Even when they are aware of how their attitudes and actions are causing adverse consequences, their response will always be more beneficial to themselves; they will be always self-absorbed. Self-absorption is their sense of "withdrawn self-centeredness". These individuals try to make a hasty assessment of a person or situation, when found uninteresting or unworthy of their attention it is mentally tune/blocked out. They focus only on what is agreeable to them or selfishly craved by them. Everything else is rather labeled as "boring" or "stupid" (Ni, 2016).

Covert narcissist is passive however still their relationships can be destructive. They lack empathy which make them uncapable of holding a relationship for long (Lancer, 2019).

Covert narcissism tries to avoid being in spot light and always try to cover up their imperfections. They always say want the others to hear. They always try to impress others or to get their approval. covert narcissists are polite, shy, impressive and appear to be perfect because they want others to approve them which in return makes them feel good about themselves (Carbone, 2017).

Covert narcissists are not very good at handling criticism as they are highly fearful of critical judgement or disapproval. They always try to prove themselves to others and try to persuade others to see their perfectionism. They can get angry easily when their needs are not being met (Wink, 1991).

Covert narcissists always require a constant amount of approval and try to put a lot into the temporary relationship to get it back. They are often demanding, controlling and possessive during the relationships (Carbone, 2017). Covert narcissists can become preoccupied with thinking and ignore the others surrounding them as they can easily become immersed in self -interests. Their feelings can be easily hurt by slighting remarks ridiculing from others. Whenever a covert enters a room, they are self-conscious as the eyes of other people can be felt by them (Weiss, 2015).

Covert narcissists are quiet and subtle with being convinced of them being better than others. They believe that others are blessed to be in presence of their greatness. They feel that they have unrecognized intelligence and superiority, that it is hidden from others. They often feel jealous of anyone who gets attention and recognition other than them, believing that only they themselves are the ones who deserve it. They inwardly have bitterness if they are refused or their superiority is refused. Covert narcissists appear to be humble or compassionate towards others (Swanson, 2018).

Individuals with Vulnerable narcissism have interpersonal and interactional hypersensitivity and insecurity which though coping is characterized by a social withdrawal (as cited in Gnambs, 2016)

Covert narcissists are cautious of the image they make on Facebook resulting in overrating of their own attractiveness (Gabriel & Critelli, 1994). Covert narcissists post photos and change their profile photo more often on the facebook. They like and comment on other people's photos. When they like or comments on others photos (seen by public), the friends of that person who liked them

gets the newsfeed of that activity. This helps that narcissist them to ensure their psychological need of being seen and valued (Greenwood, 2013).

Facebook also gives them an opportunity to satisfy their need of admiration without actually forming any deep ties with others, because they are unwilling to go into deep relationships due to their non compromising or intolerance of equality of a partner in a serious relationship (Valenzuela et al., 2009; Ellison & Lampe, 2007).

Rationale of the study

The purpose of the study is to find the relationship of facebook addiction and narcissism among university students of Mardan Khyber Pakhtunkhwa.

Facebook is most commonly and popularly used social networking site, mostly among youth including students of every educational level in Pakistan (Brech, 2019; Tariq et al., 2012). It has been shown to be used by over 25 million of Pakistani population (Qureshi, 2016). With increase in its usage, it is seen as a popular site for promotion of narcissism and in turn a booster of self-esteem. most of this behavior is shown by individual from age of 18-28 years usually whom are educating at university level (Errasti, 2017; Pantica et al., 2017; Eskisu et al., 2016; Mahdizadeh, 2010; Schwartz, 2010). This study will help enrich information on Facebook addiction and narcissism in the city of Mardan (Pakistan).

METHODOLOGY

Objectives

The study aimed to

- 1. To find the relationship between facebook addiction and narcissism among university students of Mardan.
- 2. To investigate significant gender difference in facebook addiction among university students of Mardan.

Hypotheses

H1: There will be a significant positive relationship between facebook addiction and narcissism among university students of Mardan.

H2: There will be significant gender difference in Facebook addiction among university students of Mardan.

Sample

Total sample of the study consisted of 200 students who were facebook users. The sample comprised of students from different universities of Mardan and were approached through purposive sampling which consisted of both males and females enrolled in the BS and MSc programs of these universities with age ranging from 18-28 years. Overall, 100 males and 100 females were approached from these programs (75% BS and 20% MSc). 60% of the data was collected through face-to-face communication while the rest was collected through online surveys. For pilot study data was collected for pre-test from a total of 50 students.

Operational definitions

Facebook addiction

Facebook addiction is specific type of internet addiction in which an individual is overly concerned about it, is strongly motivated to use it with a lot of time devotion resulting in impairment in their social functioning (Andreessen et al., 2012). In the current research high scores on Bergen Facebook Intensity Scale (Andreessen et al., 2012) will indicate high level of facebook use i.e. facebook addiction among the students.

Narcissism

Narcissism is an individual's sense of self-importance and self-absorbedness, along with selfconsciousness, social and psychological insecurity, and defensiveness (Hendin & cheek,1997). In the current research high scores on the Hypersensitive Narcissism Scale (Hendin & cheek,1997) will indicate high level of covert narcissism among the students.

Instruments

The data was collected through a purposive sampling questionnaire-based survey research design. Facebook addiction was measured through Bergen Facebook Addiction Scale (Andreasen et al., 2012). Narcissism was measured through Hypersensitive Narcissism Scale (Hendin & Cheek, 1997).

Bergen Facebook addiction scale (BFAS)

Bergen Facebook addiction Scale (BFAS) was developed by Andreasen et al., (2012). It is a six item, five-point Likert scale with options ranging from 'very rarely to very often'. According to this scale the score is for "very rarely" 1, "rarely" 2, "sometimes" 3, "often" 4, "very often" 5. The scale ranges from 6-30. There are no specific cut-off points for this scale however the scores are calculated through a conservative approach using the monothetic scoring key (i.e. scoring 3 or above on all the six items) to indicate Facebook addiction. High scores on the scale indicate Facebook addiction. This scale has a Cronbach alpha of .87 with test-retest reliability of .82. Permission for use of the scale has been attained.

Hypersensitive Narcissism Scale (HSNS)

Hypersensitive Narcissism Scale (HSNS) was developed by Hendin and Cheek (1997). It measures the covert aspect of Narcissism. It is a 10 item, five-point Likert scale with options ranging from 'very uncharacteristic to very characteristic'. According to this scale the score is for "very uncharacteristic/untrue/strongly disagree" 1, "uncharacteristic" 2, "neutral" 3, "characteristic" 4, "very characteristic/ true/strongly agree" 5. The scale ranges from 10-50. The scores of the participants are compared to the average score 29.4 (score obtained at the time of construction of the scale). High scores on this scale indicate Narcissistic behavior. This scale has a Cronbach alpha of .81. Permission for use of the scale has been attained.

Procedure

The study was conducted on a sample of 200 students (100 males and 100 females) enrolled in the BS and MSc programs with their age ranging from 18-28 years and belonging to different universities of Mardan, Khyber PakhtunKhwa, Pakistan. The participants were informed about the purpose of the research and requirement of signing a consent form earlier to the administration of the questionnaires. Instructions regarding questionnaires were also given. The Questionnaires were presided in the form of a paper-and pencil survey with 20-25 minutes of time duration. After fulfilment of questionnaires the participants were appreciated for their cooperation. The safety and confidentiality of the respondent's was kept in any way possible.

Initially, the data for pilot study was collected from a sample of 50 participants through purposive sampling method and face to face communication. So, as to find out whether there is any confusion regarding the questionnaires or not by the respondents. On finding no ambiguities the rest of the participants were approached for main data collection. 60% of the data was collected through face-to-face communication and purposive sampling method. While the rest of the data was assembled through online survey. Data was collected from (50% male and 50% females) sample of 200.

RESULTS

The data was collected from 200 university students who were facebook users. After the collection of data, the internal consistency of the instruments used were estimated using the Cronbach's alpha coefficient. For all the variables of the study descriptive statistics were also calculated, to examine the overall trend of the data. Furthermore Pearson-product moment correlation was used to find the relationship between the study variables along with the analysis of gender difference for the variable (facebook addiction) by using the independent sample t-test.

Sample Characteristics

Table 1.

Details of Sample Characteristics (N=200)

Sample_Characteristics	Categories	<i>f</i>	%	
Gender	Male	100	50	
	Female	100	50	

Table 1 shows the sample, out of which 100 (50%) were females while 100(50%) were males.

Internal Consistency of the Instruments

Cronbach's Alpha Coefficients of SPSS 26 version was used to measure the internal consistency of the instruments.

Table 2.

Cronbach's Alpha Coefficients for Variables in the main study (N=200)

Scales	No of Items	<i>a</i>
BFAS	6	.81
HSNS	10	.82

Note: BFAS=Bergen Facebook Addiction Scale, HSNS= Hyper Sensitive Narcissism Scale

Table 2 indicates that the reliability of all the understudy scales are in acceptable range. The reliability of BFAS is .81 and of HSNS is .82, hence indicating that the instruments under present study are reliable.

Descriptive statistics for study variables

Table 3.

Scales	No of <i>Items</i>	М	SD	Skewness	kurtosis
BFAS	6	14.39	5.51	.55	36
HSNS	10	28.71	8.54	.01	63

Note: BFAS= Bergen Facebook Addiction Scale, HSNS= Hyper Sensitive Narcissism Scale

Table 3 indicated the standard deviation, mean, skewness and kurtosis of all the study variables. The skewness for the BFAS and HSNS is positive and less than 1, which indicates that the data is normally skewed.

The correlation was also examined for the study variables using the Pearson-product moment correlation

Correlation among Facebook Addiction and Narcissism of Students

Table 4.

Relationship of Facebook Addiction with Narcissism (N=200)

Variables	1	2
1.FA	-	.350**
2.HSN		-

Note: (***p*<.01), FA=Facebook Addiction, HSN= Hyper Sensitive Narcissism

Table 4 shows that facebook addiction has a significant positive relationship with narcissism (.350**), hence indicating that hypothesis 1(there will be a significant positive relationship between facebook addiction and narcissism among the university students) is supported.

Gender differences for facebook addiction were examined using the independent sample t-test.

Gender differences in Facebook Addiction

Table 5.

Gender differences in Facebook addiction

	Men (n=100)		Women (n=100))	95 % CI			
Variables	M	SD	M	SD	t	\overline{p}	LL	UL	
Facebook Addiction	13.96	5.56	14.82	5.46	-1.10	.82	-2.39	.67	

Note: p>.05, *SD*=Standard Deviation; *M*=Mean; CI=Confidence Interval; *LL*=Lower limit; *UL*=Upper Limit.

Table 5 shows the facebook addiction in females and males. The findings were nonsignificant for facebook addiction (p>0.05) in terms of gender. thus, indicating that there are no significant differences among females and males for facebook addiction. This finding shows that our hypothesis 2 (There will be a significant gender difference in facebook addiction among university students) is not supported.

DISCUSSION

The aim of the study was to explore the relationship between facebook addiction and narcissism among the university students of Khyber Pakhtunkhwa. Furthermore, gender differences were also investigated for facebook addiction among them. For this purpose, 200 university students who used facebook were approached by the researcher through purposive convenient sampling. After data collection it was analyzed using the SPSS 26 (Statistical Package for Social sciences version 26).

Regarding the relationship between facebook addiction and narcissism, it was hypothesized that "*there will be significant positive relationship between facebook addiction and narcissism*". The results supported the hypothesis. The positive relationship of facebook addiction with narcissism supported the previous findings (Eşkisu et al., 2016; Remia, 2016; Malik & Khan, 2015; Marshall et al., 2015; Mahdizadeh, 2010).

A study was conducted to examine the relationship between facebook addiction, its related variables, narcissism and self-esteem in Turkish university students. It was found that those students

with high narcissism used facebook to compensate for/ regulate their self-image (Eşkisu et al., 2016). Hence, adds support to current results

A study was conducted to investigate the role of self-esteem and narcissism in predicting facebook addiction membership. Results revealed that users high in narcissism opted to use the facebook more, giving a positive relationship between facebook addiction and narcissism (Remia, 2016)

A study was conducted at university of Sargodha by Malik and khan (2015) in order to find impact of facebook addiction on narcissistic behavior and self-esteem and role of gender impacting them among university students of Pakistan. The results revealed that there was a positive relationship between facebook addiction and narcissistic behavior i.e. the narcissistic behavior was increased through excessive use of facebook.

A study was conducted to examine the relationship between facebook addiction, narcissism, self-esteem and the big five personality traits. The results revealed that attention-seeking of the narcissists for the use of facebook was explained through their likelihood of updating their accomplishments and their diet and exercise routine. The greater number of likes and comments reported by being receiving to the updates indicated their narcissists' tendency of giving updates about their accomplishments (Marshall et al., 2015).

A study was conducted by Mahdizadeh (2010) to examine the narcissism and self-esteem manifestation on facebook.com. Results of the study revealed that individual that had greater activity on Facebook in turn had higher level of narcissism among them. Hence it supports the current study results.

Regarding the gender difference for Facebook addiction it was hypothesized that "*There will* be significant gender differences in facebook addiction among university students". The results however do not support the hypothesis as no significant differences in gender were found in the study, also supported by the previous study (Brailovskaia & Margraf, 2017; Blanchnio et al., 2015; Malik & Khan, 2015; Koc & Gulyagci, 2013; Mahdizadeh, 2010).

Results revealed that gender differences were not significant for facebook addiction which is supportive of the current findings.

A study was conducted by Blanchnio, Przepiorka & Pantic (2015) on Narcissism and selfesteem as predictors of dimensions of facebook use. It revealed that there were no significant gender differences in facebook addition. Hence adds support to the current findings.

A study was conducted by Malik & Khan (2015) to find the impact of facebook addiction on self-esteem and narcissistic behavior among students. Results revealed that no significant gender difference for facebook addiction was found which is not in alignment with our hypothesis. However, it is supportive of the current results where no significant difference as found in gender for facebook addiction.

A study was conducted by Koc & Gulyagci (2013) in order to find facebook addiction among Turkish college students: the role of psychological health, demographic, and usage characteristics. It was also found that gender differences in facebook addiction were not significant which is also parallel to the current findings.

A study was conducted by Mahdizadeh (2010) on self-presentation 2.0: narcissism and selfesteem on facebook. Results revealed that no significant difference in gender was found for facebook addiction among its users. These results are in accordance with current findings however they are not in accordance with the hypothesis "*There will be significant gender differences in facebook addiction among university students*".

Conclusion

The findings of the current study indicate that there is a significant positive relationship between facebook addiction and narcissism. Gender differences for facebook addiction were found to be non-significant.

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