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RESEARCH

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Assessing the prevalence and psychological correlates of selfie addiction in Mansoura Medical School students: a cross-sectional study

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Abstract

Background Selfie addiction has become one of the most noticed phenomena in our modern life that is affecting people of all ages. Many researchers reported that students' addictive selfie-taking behavior resulted in the loss of function and the development of psychological problems. In this study, we mainly targeted to calculate the prevalence of addiction of selfie at Mansoura Faculty of Medicine students and find its relationship with OCD, personality traits or disorders, and self-esteem.

Methodology The study is a cross-sectional study which recruited 476 medical students through all grades. All of them are assigned to the questionnaires in the study, which included sociodemographic data, selfie addiction, Yale-Brown, Rosenberg, SCID II, and NEO scales. SCID-I scale was used to exclude students with psychotic disorder.

Results Four-hundred seventy-six students were included in our study. Two-hundred seventy-eight (58.4%) of them showed selfie addictive behavior; most of them showed the mild degree (208 students of them) according to the used selfie scale. NPD showed strong relation with statistically significant result with selfie addiction (*P*-value = 0.034). Also, high self-esteem and OCD were numerically associated with selfie addiction despite lack of statistically significance (*P*-value = 0.366, 0.148, respectively).

Conclusions The prevalence of selfie addiction was 58.4% at Faculty of Medicine Mansoura University students. There was a direct proportional relationship between selfie-taking behavior with high self-esteem, OCD, and narcissistic personality disorder.

Keywords Selfie addiction, Behavioral addiction, Medical students, Self-esteem, Obsessive–compulsive disorder, Narcissistic personality disorder, Personality traits

Background

Addiction is defined as a chronic, manageable medical disease characterized by complex interactions between brain circuits, genetics, the environment, and an individual's experiences of life. People with substances use addiction or engage in behaviors that become compulsive and repeatedly continue in spite of hurtful consequences [27].

Scholars have determined number of common behaviors with a propensity for addiction, including excessive psychoactive substance use (e.g., alcohol, nicotine, opioid, cannabinoid, amphetamine) and non-substance behaviors (e.g., gambling, Internet gaming, eating, sex, exercise, shopping, Internet use, social media use, and even work [17]).

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Behavioral addiction represents a persistent and repeated behavior that led to a significant distress or harm, whereas the behavior is not being reduced by the person and the associated distress or harm impairment of functions [22].

A selfie is a type of behavioral addiction and defined as follows: a self-portrait photography, taken typically with a camera phone or digital camera. Selfies are often associated with social network sites, such as Instagram, Twitter, and Facebook. Smartphones have become a necessary tool in our lives, and selfies have become the pioneering technological obsession in the youth [26]. However, the American Psychiatric Association (APA) has described taking "selfies" as a mental disorder; they have called it "selfitis." A mental disorder is an inflammation of ego of the person. APA has also defined it as an "obsessive–compulsive pleasure" to take photos of oneself and share them on social media sites [6].

In 2013, the Oxford English Dictionary realized selfie as a "photograph that one has taken of himself, typically one taken with a webcam or smart phone and posted through social media sites." The word "selfie" had been announced as the word of the year depending on a statistical analysis of the Oxford English Corpus in 2013 [30].

The American Psychiatric Association determined *3 grades* of "selfitis" which include *borderline*, "Having self-portrait photo three times daily at minimum, but not sharing them on social media"; *acute*, "Having selfies three times daily and sharing them on social network sites"; and *chronic*, "uncontrollable aspiration to have photos at least six times per day and sharing them on social media sites and wait for response" [32].

Psychiatrists consider selfie-taking behavior as a critical mental health problem. Taking selfies first begins with fun and time pass; progressively, it becomes a habit and slowly an addiction. Hazards of selfie include poor performance in the work field, unwanted stress, unhealthy family relations, and conflicts. Also, it may result in medical complications like the following: frozen shoulder, low back pain, awkward posture of the body, tennis elbow, and cervical spondylitis. When selfitis is examined in terms of persons, it may cause negative reactions like asociality and selfishness in general. People may try also to have photos in dangerous and risky situations with the aim of being admired, appreciated, and show off. This may lead to even death of the person [8].

In our study, we aimed to quantify the prevalence of selfie addiction among students at Mansoura Medical School, evaluating the potential classification of selfie taking as a behavioral addiction disorder. Furthermore, we sought to elucidate the relationships between selfie-taking behaviors and various personality traits, personality disorders, obsessive–compulsive disorder (OCD), and levels of self-esteem.

Methods

This is an observational cross-sectional study that was done at the academic year 2020–2021 (from January 2021 to June 2021) at the Mansoura Faculty of Medicine. A total of 476 students from all study years were included. Approval of institutional review board (IRB) was obtained prior to the study (MS.20.10.650).

Inclusion criteria were Egyptian students from Mansoura Faculty of Medicine aged between 18 and 25 years old, both genders. All participants have a smartphone. We have excluded students with psychotic disorders or who refuse to participate in the survey.

Our sample size was conducted using Daniel equation [11]. The calculated sample size in the study will be at least 216 where 5% will be added to overcome dropout and to finally be approximately 226 at least. The sample size was multiplicated × 2 due to design effect and becomes 452, and we finally were able to recruit 467 students at Mansoura Medical School.

At the start of the study, we acquired verbal approval from the head of each department which its students shared in the study to allow us to enter to the sections to perform our study. The researcher has used SCID-I scale to exclude students with psychotic disorders and SCID-II scale to detect personality disorders. The other scales, selfie scale, Yale-Brown scale, Rosenberg scale, and NEO inventory, were performed by students under supervision of the researcher.

Study questionnaires

Demographic variables

A questionnaire was designed to obtain the following sociodemographic data: gender, age, year of education, marital status, smoking, and residence.

A validated Arabic version of the selfie addiction scale

Dr. Balaji Arumugam and Dr. Saranya Nagalingam have designed and validated this selfie scale. Selfie addiction was estimated using this simplified version of a 10-item scale which included ten questions. The score ranges from minimum of 10 points to maximum of 50 points. Scores are between the following: < 20—normal, 21–30—mildly addicted, 31–40—moderately addicted, and 41–50—severely addicted. The authors have translated the questionnaire from the English to Arabic language, as content validity of questionnaire was revised by a jury of nine experts in the psychiatric field. Questions of the studied questionnaire were revised for relevance and clarity, and correct translation with item validity index was excellent degree ranging from 0.92 to 1 for all

questions. Scale validity index was assessed to be 0.851 [4].

Yale–Brown Obsessive–Compulsive Scale (Y-BOCS)

A self-reported scale was designed to determine the obsessive–compulsive disorder (OCD) characters severity. The score ranges from minimum of 0 to maximum of 40 points. Scores are between the following: 0–7: no OCD, 8–15: mild OCD, 16–24: moderate OCD, and > 24: severe OCD. The scale is used mainly in research and clinical practice to measure the severity of OCD and to follow up the improvement at treatment [18]. It was translated to Arabic by Abdel-Khalek [1].

Rosenberg self-esteem scale

A self-reported questionnaire consisted of ten questions, which are divided into five positive and five negative statements. This scale has four options of answers as follows: strongly disagree (0), disagree (1), agree (2), and strongly agree (3) for positive statements, while the opposite is used for negative statements [25]. It was translated to Arabic by Zaidi et al. [35].

SCID-II personality disorders scale

It is a semi-structured clinical interview administered by trained physicians and designed to yield Axis II disorders (personality disorders) according to DSM-IV criteria [14]. It was translated to Arabic by Hatata et al. [20].

Personality scale: Revised NEO Personality Inventory (NEO PI-R)

A self-reported scale examines a persons' Big Five traits of personality (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) [10]. It was translated to Arabic by Alansari [2].

Statistical analysis

By using of SPSS software package version 26, the data were coded, processed, and analyzed. Categorical data were shown as percentage and number. Nonnormally distributed continuous data were defined as median and range (minimum and maximum). Chi-square test was used to assess significance of categorical data. Fisher exact test was used for categorical data if expected count is less than 5 in four-cell table. Crude odds ratio was measured using Epi Info program with 95% confidence interval. Variables associated with selfie addiction in bivariate analysis were entered in stepwise logistic regression analysis significantly using forward Wald method. Adjusted odds ratio with 95% confidence interval was measured. Pearson correlation was used to assess parametric correlation between continuous variables. Spearman correlation was used to test nonparametric correlation between continuous variables. Variables significantly correlated to selfie addiction score were entered into linear regression analysis to detect independent predictors of selfie addiction score. Statistical significance was defined as P-value ≤ 0.05, while P-value of < 0.01 was considered highly significant.

Results

Sociodemographic data of the studied group

Four-hundred seventy-six medical students had completed the questionnaire. The mean age was 21.23 years ± 1.873, they were divided into 326 males (68.5%) and 150 females (31.5%), 416 of them were studying at conventional program (87.4%), while 60 were studying at Manchester program (12.6%). Data were collected from 6 different study years. Regarding selfie addiction according to sociodemographic characteristics, 174 students (73.1%) were selfie addict in academic years, while the students having selfie addiction criteria in clinical years were 104 students (43.7%). The selfie addiction was higher in male by 61.3% than female (52%). According to type of study, conventional program shows selfie addiction by about 61.8%, while Manchester program was only about 35% (Table 1).

Concerning selfie addiction among different study years, the mild degree was the most common in both academic and clinical years. They were represented by 52.5% and 34.9% of all samples respectively, while only 2 students have severe selfie addiction, both in the academic years (Table 2).

Selfie addiction according to self-esteem showed that 328 of students have average degree of self-esteem according to Rosenberg scale. Selfie addiction percentage was highest in students with high self-esteem and lowest in students with low self-esteem (Table 3).

The relation between selfie addiction and obsessive–compulsive disorder showed that out of 278 students who have selfie addiction criteria, 126 (45.3%) students have OCD criteria according to Yale-Brown scale, while 152 (54.7%) students had not been diagnosed as OCD (Table 4).

According to (NEO), there was a highly statistically significant difference between selfie addicts and those who are not in relation to extraversion ($P = < 0.001$) and openness ($P = < 0.001$) where selfie addicts students showed higher levels of extraversion and openness traits of personality. There was no statistically significant difference between both groups as regarding neuroticism, agreeableness, and conscientiousness (Table 5).

The most common personality disorders among selfie addicts were narcissistic and borderline personality disorders by percentage of 10.1% and 7.2%, respectively, which differ at non-selfie addicts, as the obsessive–compulsive

Table 1 Association between selfie addiction and different demographic data

Variable	Number	Selfie addiction	*p*-value*	Strength of association*
Study years			**< 0.001**	0.3
Academic years (1st 3 years)	238	174 (73.1%)		
Clinical years (last 3 years)	238	104 (43.7%)		
Mean age ± SD	21.23 ± 1.873			
Gender			0.055	0.088
Male	326	200 (61.3%)		
Female	150	78 (52%)		
Study type			**< 0.001**	0.18
Conventional	416	257 (61.8%)		
Manchester	60	21 (35%)		
Smoking			0.862	0.008
Nonsmokers	434	254 (85.5%)		
Smokers	42	24 (57%)		
Marital status			0.486	0.055
Single	446	260 (58.3%)		
Married	28	16 (57%)		
Divorced	2	2 (100%)		

* Chi-square test used as a test of significance. *Phi and Cramer's V used as a test of strength of association

Table 2 Distribution of selfie addiction among different study years

Study years	*N* (%)	Selfie scale				*p*-value*
		Normal	Mild	Moderate	Severe	
Academic years	238 (100%)	64 (26.9%)	125 (52.5%)	47 (19.7%)	2 (0.8%)	**< 0.001**
Clinical years	238 (100%)	134 (56.3%)	83 (34.9%)	21 (8.8%)	0 (0.0%)	
Total	476 (100%)	198 (41.6%)	208 (43.7%)	68 (14.3%)	2 (0.4%)	

* Chi-square test used as a test of significance

Table 3 Selfie addiction according to self-esteem (Rosenberg scale)

Rosenberg scale (self-esteem)	Selfie scale				*p*-value*
	Not addict	Selfie addict			
		Mild	Moderate	Severe	
Low (*N* = 72)	38 (52.8%)	26 (36.1%)	8 (11.1%)	0 (0%)	0.366
Average (*N* = 328)	148 (45.1%)	119 (36.3%)	59 (17.98%)	2 (0.6%)	
High (*N* = 76)	12 (15.8%)	63 (82.9%)	1 (1.3%)	0 (0%)	

* Chi-square test used as a test of significance

and paranoid personality disorders represent the most common personality disorders by percentage of 5.6% and 5.05%, respectively. In contrast to that, the histrionic and dependent personality disorders were the least personality disorders found at both selfie and non-selfie addicts (Table 6).

The results of binary logistic regression analysis which was run to ascertain the effect different variables on selfie addiction among medical students of Mansoura university according to grade (clinical vs academic years of study), OCD criteria (normal vs OCD students), self-esteem (low and high vs average self-esteem) and narcissistic type

Table 4 Selfie addiction in relation to Yale-Brown scale scores

Yale-Brown scale (OCD)	Selfie scale				*p*-value*
	Not addict (*N* = 198)	Mild addiction (*N* = 208)	Moderate addiction (*N* = 68)	Severe addiction (*N* = 2)	
No	128 (64.6%)	124 (59.6%)	28 (41.2%)	0 (0%)	**0.148**
Mild	40 (20.2%)	50 (24.03%)	24 (35.3%)	0 (0%)	
Moderate	28 (14.1%)	26 (12.5%)	12 (17.6%)	2 (100%)	
Severe	2 (1.01%)	8 (3.8%)	4 (5.9%)	0 (0%)	

* Chi-square test used as a test of significance

Table 5 Personality traits among students having selfie addiction (NEO)

Level of personality traits		Not selfie addict	selfie addict	*p*-value*
Type "N"	**Low (*n* = 8)**	4 (50%)	4 (50%)	0.743
	Average (*n* = 152)	66 (43.4%)	86 (56.6%)	
	High (*n* = 316)	128 (40.5%)	188 (59.5%)	
Type "E"	**Low (*n* = 2)**	2 (100%)	0 (0%)	**< 0.001**
	Average (*n* = 124)	70 (56.5%)	54 (43.5%)	
	High (*n* = 350)	126 (36%)	224 (64%)	
Type "O"	**Low (*n* = 242)**	82 (33.9%)	160 (66.1%)	**< 0.001**
	Average (*n* = 207)	97 (46.9%)	110 (53.1%)	
	High (*n* = 27)	19 (70.4%)	8 (29.6%)	
Type "A"	**Low (*n* = 278)**	124 (44.6%)	154 (55.4%)	0.288
	Average (*n* = 118)	44 (37.3%)	74 (62.7%)	
	High (*n* = 80)	30 (37.5%)	50 (62.5%)	
Type "C"	**Low (*n* = 296)**	130 (43.9%)	166 (56.1%)	**0.012**
	Average (*n* = 154)	52 (33.8%)	102 (66.2%)	
	High (*n* = 26)	16 (61.5%)	10 (38.5%)	

* "*N*" neuroticism, "*E*" extraversion, "*O*" openness to experience, "*A*" agreeableness, and "*C*" conscientiousness. **No.*, number of students having selfie addiction criteria. *Chi-square test used as a test of significance

of personality disorder (narcissistic vs non narcissistic students).

On *univariant analysis*, medical students in the academic years, having obsessive–compulsive features, increasing in self-esteem levels, and having narcissistic personality features have significant risk factors for selfie addiction (*AOR* = 3.5, 1.5, 5.96, and 2.66, respectively) while on *multivariant analysis AOR* = 2.73, 1.41, 17.53, and 6.23, respectively (Table 7).

Discussion

In our study, there were 174 (73.1%) students in the academic group vs 104 (43.7%) students in the other group that showed the criteria of selfie addiction. These results coincide with a study held at Northampton and found that younger students tend to use selfie more than others. This could be due to more responsibilities required from elders than younger students. Also, the more clinical nature of their study could consume more time than academic ones. Adding to that the new academic community they involved in owing to the big difference between the college and school life [12].

The male ratio was 73%, while females were about 27%. The selfie addiction was higher in the male group, and it reaches about 61%, while it was about 52% in female group. Fox and Rooney have found that the behavior of selfie posting is correlated with personality traits highly; selfie posts were higher in self-reported narcissistic men [15].

Female students of Mansoura Faculty of Medicine may not prefer selfie-taking behavior as a means of entertainment. The religious background that many medical female students have may prevent them from taking pictures and posting them on social media in a large way. Also, the conservative nature of female students in provincial universities such as Mansoura University may make them less in line with the growing trends nowadays. Also, fear of addiction stigma may make them anxious to give more idealistic answers. Adding to that, they may take less selfie trying to protect their social privacy.

The percentage of selfie addiction was lower in the Manchester students (35%) than at the conventional program (61.8%). The reason for this may be that Manchester students are exposed to less academic pressure due to the lack of density in educational classes and the quality of education compared to the conventional program; this often reduces the psychological pressure that may make them more eager to take a selfie as a means of entertainment. The high financial level of most of the students of the Manchester program may also make them have a variety of means of entertainment instead of taking a selfie.

According to selfie addiction, we found that students having selfie addiction criteria were 287 (58%) students. While students who did not match the selfie addiction

Table 6 Personality disorders among selfie and non-selfie addicts (SCID II)

Types of personality disorders	Selfie addict $n = 278$ (%)	Non-selfie addict $n = 198$ (%)	*p*-value*
Avoidant personality disorder	5 (1.8%)	7 (3.5%)	0.233
Dependent personality disorder	4 (1.4%)	3 (1.5%)	0.946
Obsessive–compulsive personality disorder	17 (6.2%)	11 (5.6%)	0.798
Passive aggressive personality disorder	16 (5.4%)	7 (3.5%)	0.266
Depressive personality disorder	5 (1.8%)	5 (2.5%)	0.586
Paranoid personality disorder	17 (6.1%)	10 (5.05%)	0.621
Schizotypal personality disorder	11 (3.9%)	6 (3.03%)	0.591
Schizoid personality disorder	14 (5.03%)	7 (3.5%)	0.432
Histrionic personality disorder	2 (0.7%)	2 (1.01%)	0.732
Narcissistic personality disorder	28 (10.1%)	8 (4.04%)	**0.034**
Borderline personality disorder	20 (7.2%)	8 (4.04%)	0.149
Antisocial personality disorder	6 (2.2%)	4 (2.02%)	0.918

* Chi-square test used as a test of significance

Table 7 Logistic regression analysis of variables with selfie addiction

Parameter	Univariant		Multiple variant	
	Odd's ratio	*p*-value*	Odd's ratio	*p*-value*
Grade				
Clinical	r (1)		r (1)	
Academic	3.503 (2.39–5.15)	**< 0.001**	2.73 (1.79–4.17)	**< 0.001**
OCD				
Not OCD	r (1)		r (1)	
OCD	1.516 (1.04–2.21)	**0.030**	1.414 (0.93–2.14)	0.101
Self-esteem				
Average	r (1)		r (1)	
Low	1.359 (0.82–2.27)	0.239	3.722 (1.47–9.42)	**0.006**
High	5.961 (2.76–12.89)	**< 0.001**	17.527 (5.87–52.31)	**< 0.001**
NPD*				
Normal	r (1)		r (1)	
Narcissistic	2.66 (1.19–5.97)	**0.018**	6.231 (1.79–21.7)	**0.004**

* Chi-square test used as a test of significance. *Narcissistic personality disorder

criteria were 198 (42%) students. The interpretation of high selfie addiction in our study might be due to the absence of other tools of entertainment among medical students because of their concern about studying and academic activities and considering selfie-taking behavior as a source of entertainment and a means to come over stress and anxiety from medical study.

Among 278 students who were found selfie addict by our study, 208 (75%) of students were having mild degree of selfie behavior, while severe degree was found in only 2 students, both in the academic years. In another study done by Humaida in Sudan which recruited 400 selfie addict students, it has been found that 200 (50%) students were addict at mild degree [21]. Another study of about 1200 participants responded completely to the questionnaire done by El Khoueiry et al. and found that the low selfie-takers were more common in the study with about 43% [13].

Another study has been performed at India to assess the selfie addiction among junior college students, 133 (66.5%) out of 200 students had mild selfie addiction criteria, and 32 (16%) students had moderate degree, while the severe degree was represented by only 1 (0.5%) student. These data concluded that the mild degree is the most common form of selfie addiction among students [16].

As regard the relation between selfie addiction and self-esteem, we found that selfie addicts with low self-esteem represent about 50% of the total number of low self-esteem students, while selfie addicts with high self-esteem were about 82%. The lower percent of selfie addiction among low self-esteem students might be due to the avoidance of negative feedback or the low number of likes to the person's selfies. Social media enforces persons with decrease self-esteem through the innate opportunity to compare himself to other people.

Low self-esteem persons usually have low selfies than persons having increase self-esteem [7]. Dissatisfaction of people with low self-esteem with their bodies might be another possible explanation for the decrease in number of selfies taken by them. Tomko stated that the people with low self-esteem did not prefer to perceive their pictures with not-so-beautiful bodies in social media sites like Instagram, Twitter, or Facebook [31]. Persons with high self-esteem are motivated to have a lot of selfies,

which, by the way, also promotes the self-esteem of this person [7].

In our point of view, the increase of selfie-taking behavior among students having obsessive–compulsive symptoms is often characterized by idealism and perfectionism which lead them to take many pictures in different positions and multiple angles until they get the perfect picture; they can also have the advantage of edition of the contrast and color, the changing of backgrounds, and the addition of other effects before posting them on social media sites. This might allow users to confirm their self-importance and individuality.

According to relation between selfie addiction and personality traits, we found that students with high neuroticism have more selfie addiction criteria. Neurotic people usually use selfies as a way to advance their appearance and decrease the undesirable evaluations and emotions. El Khoueiry et al. found that high neurotistic people have a moderate selfie-taking behavior if they are compared with low selfie-takers [13].

Students with low openness are associated with more selfie-taking behavior according to our study. This is the same result which has been found by Khoueiry et al. that show that people with high openness traits are related to low selfie-taking behavior [13]. This could be clarified by the fact that the person having high openness criteria is usually identified as an active one, with a pioneering and creative vision of the world, and he always practices new things. Thus, they prefer spending their time on new experiences and activities that produce new feelings than spending their time taking multiple selfies [5, 9].

A conscientious students have been found to be less selfie addict according to our study. This was consistent with another study that found that high conscientiousness levels are related to low selfie-taking behavior [3].

To explain this results, conscientious students usually prefer actual-life practices than online activities, and they are more attentive when they use social network sites, favor their confidentiality and avoid sharing their sites to others, and consider that having a lot of selfies and preoccupying about the best one are a waste of time and distraction that can change future targets and plans. This personality trait is accordingly considered a prophylactic influence against all types of behavioral addictions [24, 34].

Students with high extraversion traits are associated with intense selfie-taking behavior in our study. This coincides with another study discussing selfie and personality and found that extraversion and social exhibitionism usually predicted the rate of online selfie sharing in women and men [28]. Extraverted persons may use selfies as a tool to preserve their updated communication to their entourage [23].

However, we did not find any significant relation between selfie addiction and agreeableness traits. These results are in harmony with the results of a study performed by El Khoueiry et al. [13].

The highest personality disorder among Mansoura Faculty of Medicine students "in our sample" according to SCID II was narcissistic, obsessive–compulsive, and borderline personality disorders by percentage of 7.6%, 5.9%, and 5.9%, respectively, while the most common types of personality disorders which have been found among selfie addicts were narcissistic and borderline personality disorders by percentage of 10.1% and 7.2%, respectively. *P*-value shows only significant relation in narcissistic type of personality disorders.

Students who showed more selfie addiction criteria have more narcissistic features than non-selfie addict students, as they usually search for attention from others, so they may post their selfies intensity on social media sites to gain more likes and comments, which what makes them in a better state. Also, they may take a lot of pictures to escape from boredom.

A great amount of studies about selfie-taking behavior done by Sorokowski et al. [29], Barry et al. [7], and Weiser [33] found that there is a significant correlation between selfie-posting behavior on social media and narcissism, as they found that the narcissism of the person increased selfie-posting behavior or vice versa [19].

Limitations

In this study, several limitations must be acknowledged. Firstly, the research was conducted exclusively at a single medical school in Egypt, potentially limiting the generalizability of the findings to a broader population of medical students or individuals from different cultural backgrounds. Additionally, the use of a cross-sectional design restricts the ability to draw causal relationships or track changes over time. The reliance on self-reported data introduces the possibility of recall and social desirability biases, particularly for sensitive topics like selfie addiction. Moreover, the simplified version of the selfie addiction scale used in the study may not fully capture the complexity of this phenomenon. These limitations underscore the need for caution in interpreting the results and highlight avenues for future research to address these shortcomings and provide a more comprehensive understanding of selfie addiction and its determinants.

Conclusions

The findings reveal a notable proportion of students exhibiting selfie addiction, with variations in addiction levels across different demographic and personality

traits. Notably, male students and those in academic study years showed higher rates of selfie addiction. Furthermore, individuals with specific personality traits, including higher extraversion and lower conscientiousness, were more prone to selfie addiction. Self-esteem also played a role, with students possessing high self-esteem displaying increased selfie addiction tendencies. While the study provides valuable insights into this emerging phenomenon, it is important to acknowledge the limitations, including its single-institution focus and cross-sectional design. Future research should encompass diverse populations and employ longitudinal approaches to better understand the dynamics of selfie addiction. These findings underscore the need for increased awareness and education about healthy social media usage, particularly among young adults in academic settings, to mitigate the potential negative consequences associated with excessive selfie-taking behavior.

Abbreviations

APA	American Psychiatric Association
IRB	Institutional review board
NPD	Narcissistic personality disorder
OCD	Obsessive-compulsive disorder
SCID II	Structured Clinical Interview for DSM
SPSS	Statistical Package for the Social Sciences

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Authors' contributions
AR, data gathering and drafting the manuscript. ME, coordination and supervision of all research activities. II, revision of writing the manuscript and results of the study. IHRE, supervision of all research activities and revision of writing of all manuscript and results of study.

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Availability of data and materials
All the data are available when requested.

Declarations

Ethics approval and consent to participate
The methodology and subject for this paper had been approved by the IRB committee at Mansoura Faculty of Medicine, Egypt (*MS.20.10.650*). Verbal consent was obtained from all students who participated in the survey before they were included in the study.

Consent for publication
The participants consented to publication.

Competing interests
The authors declare that they have no competing interests.

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