

Received: December 2023 Accepted: January 2024

DOI: <https://doi.org/10.58262/ks.v12i2.429>

The Predictive Ability of the Dimensions of Cyberbullying Based on the Information of the Dark Triad of Personality among Female University Students

Nilly Hussien Elamrousy¹, Abeer Salh Alshehri²

Abstract

The phenomenon of cyberbullying is a common problem nowadays and has dimensions that can be linked to harmful personality traits, which are (deceptive Machiavellianism), (controlling) narcissism, and (impulsive) psychopathy. Most previous studies have shown that Bullying is an aggressive behavior that leads to harm to the bully and the victim. It appears in the bad psychological effects of each of them. The studies that dealt with the relationship of the dark triad of personality to cyberbullying among school students more than university students all concluded that there is a relationship between the dark triad of personality and cyberbullying as a whole in general and that psychopathy The strongest predictor of cyberbullying. Despite the interest in studying cyberbullying, there is a research gap represented in the lack of addressing specific dimensions of cyberbullying and its relationship to the dark triad personality traits among university students, who represent an important segment in all societies, and to the best of the researcher's knowledge, there is no Arab or foreign study that has addressed the variables of the current research. Combined in one relational system among female university students in Saudi society. Therefore, the aim of the current research is to verify the predictive ability of dimensions of cyberbullying with the knowledge of the dark triad of personality for a sample of female students at King Khalid University. The importance of this research appears to be to benefit specialists in developing counseling and treatment programs for university students who possess these characteristics, so that they enjoy a high level of psychological health and integrate well with society.

Keywords: *dimensions of cyberbullying - dark triad of personality.*

Introduction

Some personality traits predict aggressive behavior directly or indirectly, and these include Machiavellianism, narcissism, and psychopathism, which harm the individual and society (Barlett, 2016, 294). Moor & Anderson, (2019) confirmed that these three harmful traits are used to examine aggressive personality, and are called the dark triad of personality (p40), Park, et, al.,(2021) explained that cyberbullying stems from the technological aspect that eliminates geographical boundaries and facilitates anonymity, and that cyberbullying is considered a cybercrime, Bourahli & Abd ElRazzaq, (2021) identified the personal and social causes of cyberbullying as being the most important factors that push the individual to practice bullying behavior, in addition to the victim's weak personality(p19). Paulhus & Williams, (2002) presented a model that combines harmful personality traits (Machiavellianism, narcissism, and

¹ Department of Psychology, Faculty of Education, King Khalid University. Email: namrosi@kku.edu.sa

² Department of Psychology, Faculty of Education, King Khalid University. Email: asaalshehri@kku.edu.sa

psychopathy) that are associated with socially unacceptable behaviors. Park, et, al, (2021) also indicated that cyberbullying has a negative impact on the health of adolescents, leading to psychological and social problems. Jones & Paulhus, (2013) defined the dark triad of personality as a group that includes three harmful personality traits: Machiavellianism, narcissism, and psychopathy. Lyons, et, al., (2019) confirmed that the dark triad of personality includes traits of self-centeredness, manipulation, and exploitation of humans. Crysel; Crosier & Webster, (2013) explained that the traits of people who are characterized by the dark triad appear in their deception of others to achieve their personal goals and exaggerate. They have low self-esteem and low empathy for others (P35). While Muris, et, al., (2017) stated that narcissism is a trait that makes a person integrate into friendly personal relationships with others, and he also defined the trait of psychopathy as indicating the continuous repetition of an individual's anti-social behavior that is characterized by boldness and impulsiveness (P184, 188). Also, the results of Pilch (2020) indicated that narcissistic people try to show positive feelings in the presence of others in order to attract their attention and admiration to obtain support for their own opinions.

There were many previous studies that dealt with the dark triad of personality, such as the study (Paulhus & Williams, 2002), the results of which showed that males obtained high scores on the dark triad of personality traits. And the study (Knight, et, al., 2018), whose results concluded that pathological forms of narcissism and psychopathy are predictive of aggression among university students. Also, the study (Revital; Joseph G. & Anton, 2022), whose results showed that psychopathy and Machiavellianism are located near the area of aggression in Personality space. As for the study (Taha, 2022), its results revealed the possibility of predicting the dark triad of personality from the dimensions of difficulties in emotional regulation and moral detachment.

Szabo & Jones (2019) explained that the Dark Triad personality traits share a person's low empathy for others (P160). In this regard; Al-Kholy (2005) explained the importance of the individual's socialization and its role in the emergence of his Machiavellian behavior, as this behavior is formed in the early stages in which the individual learns to satisfy his needs.

Drinkwater; Dagnall & Denovan, (2020) referred to Machiavellianism as a trait that includes an individual's focus on himself and his control over others in a way that influences them in an attractive way to hide his hypocrisy and personal planning (P1). Hillsberg, & Spak, (2006) indicated that the phenomenon of cyberbullying in which the bully intimidates, threatens, and intimidates others. Alqahtani (2016) explained that cyberbullying is a unique phenomenon in the twenty-first century. Cyberbullying is defined in (Al-Otaibi, 2021, 495) as a continuous attack carried out by the bully towards the victim with the aim of harming him psychologically through verbal assault, ridicule and exclusion via the Internet. Also, Adam (2021) explained the most important reasons that make a person a bully, which are feelings of worthlessness among others, low self-esteem, and psychological and family disorders. It is worth mentioning: The practice of cyberbullying is linked to a number of problems, including low self-esteem, feelings of little value, frustration, anxiety, behavioral problems, and low academic performance (Abd ElFattah, 2022). There are many forms of cyberbullying, including: deceiving someone into knowing his secrets and information, publishing them online and causing harm to him (Mahmoud, 2021, 510).

There have been many previous studies that dealt with cyberbullying, such as the study (Badawi & Dabbar, 2023), whose results concluded that the level of cyberbullying among university

students is average, and the study (Maasho & Nabar, 2023), whose results explained the causes of cyberbullying among university students, represented by compensating for feelings of inferiority. And the study (Fadil & Boukarda, 2023), the results of which revealed a high level of exposure to cyberbullying from the point of view of university students, and the study (Mahmoud, 2022), the results of which showed the existence of a positive, statistically significant correlation between cyberbullying and suicidal thoughts among university students, A study (Matthias ; Anna & Anett, 2022), whose results showed that justice and empathy are negatively related to the perpetration of cyberbullying among university students, and a study (Al-Shakhaibi & Al-Jizani, 2020), whose results showed a low degree of use of cyberbullying among male and female students at Prince Sattam University in the Kingdom Saudi Arab.

There are also many previous studies that examined the relationship between dark triad personality traits and cyberbullying in general, such as the study (Goodboy & Martin, 2015), whose results showed that psychopathy is the only predictor of cyberbullying. And the study (VanGeel; et.al., 2016), which revealed the relationship between the five major factors of personality and the dark triad of personality, sadism, and bullying, and the study (Bogolyubova; et.al.,2018), whose results showed that psychopathy and male gender are predictors of engaging in harmful behaviors online. And the study (Saqr, 2021), the results of which revealed that psychopathy is the strongest predictor of cyberbullying.

The current research has benefited from the psychological heritage and previous studies in determining the appropriate methodology and sample, building the research literature, and supporting its results. The importance of the research is represented in the dimensions of cyberbullying and the dark triad of personality, which are variables worthy of study. Also, there is no study that has addressed the topic of the current research. While the importance of applied research, in light of its findings, is to benefit specialists in developing guidance programs and treatment plans to reduce cyberbullying behavior and modify harmful personality traits among university students.

Materials and Methods

The study relied on the descriptive, correlational and differential approach to suit the nature of this research. The participants were 110 female volunteers from the College of Education, Department of Psychology. Their ages ranged between 18 - 26 years, with an average age of 23.91 and a standard deviation of (3.77). The study tools were applied to these female students who volunteered to participate in the study during the academic year 2023. The psychometric properties of these tools were verified on a survey sample consisting of (67) female students of the same age. The tools used are the Cyberbullying Scale and the Dark Triad Personality Scale as follows:

Cyberbullying Scale prepared by (Alshehri, A. & Elamrousy, N., 2023) to measure the psychological, academic, and social dimensions of cyberbullying among university students. The sample consisted of 110 male and female university students. The scale consists of 21 items, distributed over these three main dimensions: the psychological dimension (6 items), the academic dimension (7 items), and the social dimension (8 items). All scale items are worded positively. To correct this scale, we relied on tripartite estimation with graduated weights for the response alternatives, which are “Agree = 3 points,” “Sometimes = 2 points,” and “Disagree = 1 point.” The highest possible score on the scale was 63, which indicates a high level of cyberbullying among university students, while the lowest score was 21, which indicates

a low level of cyberbullying among these students. The scale's developers calculated the validity and reliability of this scale, and the results showed that the scale's validity was high at a significance level of (0.01), and the reliability coefficients were high, which indicates that the cyberbullying scale has a high degree of validity and reliability. In the current research, the psychometric efficiency properties of this scale were verified by calculating validity and reliability using various statistical methods, including internal consistency, Cronbach's alpha, split-half, and Guttman. as follows:

Table 1: Correlation Coefficients of Each Statement with the Total Score of the Respective Dimension for the Cyberbullying Scale (N=67).

Psychological Dimension		Academic Dimension		Social Dimension	
Statement no.	The correlation coefficient (r) value	Statement no.	The correlation coefficient (r) value	Statement no.	The correlation coefficient (r) value
1	.883**	7	.676**	14	.621**
2	.894**	8	.635**	15	.517**
3	.883**	9	.637**	16	.433**
4	.778**	10	.637**	17	.517**
5	.842**	11	.771**	18	.560**
6	.786**	12	.670**	19	.570**
-		13	.666**	20	.513**
-		-		21	.654**

** Significant at (0.01).

The findings from Table 1 demonstrate that all correlation coefficients between each item and the score of the corresponding dimension were statistically significant at the 0.01 significance level, with values ranging from -0.433 to 0.894. The elevated values indicate the dependability of the scale.

Table 2: Correlation Matrix of Correlation Coefficients Between the Dimensions and Between the Dimensions and the Total Score of the Cyberbullying Scale (N=67).

Dimensions	Psychological Dimension	Academic Dimension	Social Dimension	Total score
Psychological Dimension	-			
Academic Dimension	.752**	-		
Social Dimension	.653**	.597**	-	
Total score	.900**	.889**	.856**	-

** Significant at (0.01).

The data in Table 2 shows that all the correlation coefficients between the dimensions of the scale and each other, as well as the overall score of the scale, were statistically significant at the 0.01 level. The scores varied between 0.597 to 0.900, which confirms the credibility of the cyberbullying scale.

The reliability of the Cyberbullying Scale was evaluated by calculating Cronbach's Alpha coefficient and Split-Half reliability using the Spearman-Brown prophecy model. Table 3 displays the results.

Table 3: Cronbach's Alpha and Split-Half Reliability Coefficients for the Cyberbullying Scale (N=67).

Dimensions	No. of statements	Cronbach's Alpha	Split-Half	Guttman
Psychological Dimension	6	.898**	.932	.926
Academic Dimension	7	.737**	.807	.796
Social Dimension	8	.456**	.665	.745

Total score	21	.860**	.859	.848
-------------	----	--------	------	------

** Significant at (0.01).

It is evident from Table 3 that the values of Cronbach's alpha, split-half reliability, and Guttman's coefficient were high and acceptable, indicating that the scale exhibits a high degree of reliability.

The Dark Triad Personality Scale, The Dark Triad of Personality, which was defined by Jones and Paulhus (2013), consists of three socially undesirable traits: Machiavellianism, Narcissism, and Psychopathy. This scale comprises three main dimensions, each consisting of nine elements, resulting in a total of 27 items. Participants evaluate these items using a graded scale that spans from 5 (indicating a strong agreement) to 1 (indicating a strong disagreement). A score of 27 signifies a lesser magnitude of Dark Triad features, whilst a score of 135 signifies a larger magnitude. The designers of the scale have established the psychometric qualities of the scale, which support its validity, reliability, efficacy, and usefulness for measuring the Dark Triad of Personality. The current study evaluated the psychometric qualities of the scale using measures of internal consistency (Cronbach's Alpha), split-half reliability (Spearman-Brown's Formula), and split-half reliability (Guttman's Formula).

Table 4: Correlation Coefficients of Each Item with the Total Score of the Respective Dimension in the Dark Triad Personality Scale (N=67).

Machiavellianism		Narcissism		Psychopathy	
No. of item	Correlation coefficient (R)	No. of item	Correlation coefficient (R)	No. of item	Correlation coefficient (R)
1	.335**	10	.507**	19	.422**
2	.674**	11	.696**	20	.291*
3	.344**	12	.751**	21	.622**
4	.638**	13	.732**	22	.664**
5	.579**	14	.596**	23	.587**
6	.609**	15	.400**	24	.651**
7	.282*	16	.572**	25	.352**
8	.417**	17	.547**	26	.470**
9	.444**	18	.468**	27	.527**

**Sig. at (0.01), *Sig. at (0.05).

The findings from Table 4 demonstrate that all correlation coefficients between each item and the score of the corresponding dimension were statistically significant at the significance levels of 0.01 and 0.05. The values of the correlation coefficients ranged from 0.282 to 0.751. The elevated numbers indicate the scale's dependability.

Table 5: Matrix of Correlation Coefficients between the Dimensions Themselves and between the Dimensions and the Total Score of the Dark Triad Personality Scale (N=67).

Dimension	Machiavellianism	Narcissism	Psychopathy	Total
Machiavellianism	-			
Narcissism	.596**	-		
Psychopathy	.478**	.615**	-	
Total	.795**	.896**	.832**	-

**Sig. at (0.01)

The results shown in Table 5 demonstrates that all correlation coefficients between the

dimensions of the scale, as well as the overall score of the scale, were statistically significant at the 0.01 level. The readings spanned from 0.478 to 0.896, so affirming the authenticity of the Dark Triad personality scale.

Table 6: Reliability Coefficients Using Cronbach's Alpha and Split-Half Reliability and Guttman Formula for the Dark Triad Personality Scale (N=67).

Dimension	No. of items	Cronbach's Alpha	Split-half	Guttman
Machiavellianism	9	.598	.543	.525
Narcissism	9	.751	.683	.661
Psychopathy	9	.648	.751	.746
Total	27	.845	.796	.795

It is evident from Table 6 that the values of Cronbach's alpha, split-half reliability, and Guttman's coefficient were high and acceptable, indicating that the scale exhibits a high degree of reliability.

Results

First Hypothesis

Predicting the extent of cyberbullying may be achieved by assessing the dark triad of personality traits in a group of female students at King Khalid University. In order to assess the accuracy of this hypothesis, the Pearson correlation coefficient was employed to measure the relationship between the dark triad of personality and the various aspects of cyberbullying. Subsequently, a stepwise multiple regression analysis was conducted to determine the degree to which the dark triad of personality predicts each dimension of cyberbullying. The subsequent tables provide a detailed explanation of these findings.

Table (7): Shows the Relationship between the Dark Triad of Personality Dimensions of Cyberbullying (n=110).

Dark Triad of Personality	Pearson correlation coefficient			
	Dimensions of cyberbullying			
	psychological	academic	social	Total
Machiavellianism	.088	.156	.207*	.181
Narcissism	.096	.223*	.160	.194*
Psychopathy	.194*	.294**	.319**	.325**

**Sig. at (0.01), *Sig. at (0.05).

It is clear from the data in Table 7 that:

- There is no statistically significant correlation between the trait of Machiavellianism and both the dimensions (psychological and academic) and the total degree of cyberbullying, as the value of the correlation coefficient for each of them was respectively (.088, .156, .181), while there is a statistically significant positive correlation between those The trait of Machiavellianism and the social dimension of cyberbullying, where the value of the correlation coefficient between them reached (.207*) at a significance level of (0.05).
- There is no statistically significant correlation between the trait of narcissism and each of the dimensions (psychological and social), as the value of the correlation coefficient for each

of them respectively reached (.096 - .160), which are non-statistically significant values, while there is a statistically significant correlation between the trait of narcissism and each of the following: The academic dimension and the total degree of cyberbullying, where the value of the correlation coefficient for each of them was respectively (.223* - .194*) at a significance level of (0.05).

- There is a positive, statistically significant (strong) correlation between the trait of psychopathy and both the academic and social dimensions and the total degree of cyberbullying, where the values of the correlation coefficients were respectively (.294** - .319** - .325**), which are significant values. Statistically at a significance level of (0.01), there is also a statistically significant (medium) positive correlation between the trait of psychopathy and the psychological dimension of cyberbullying, where the value of the correlation coefficient reached (.194*) at a significance level of (0.05).

This indicates that this hypothesis was partially fulfilled through the existence of a positive, statistically significant correlation between some traits of the dark triad of personality (Machiavellianism, narcissism, psychopathy) and some psychological, academic, and social dimensions of cyberbullying.

This shows that we cannot predict all dimensions of cyberbullying from all the traits of the dark triad of personality, but rather we can predict from some traits of the dark triad of personality some dimensions of cyberbullying. To verify this predictive ability, stepwise multiple regression analysis was used by entering the performance of female students on the two scales (traits of the triad). The dark triad and cyberbullying “dimensions and overall degree”), where the dark triad of personality is the independent variable (predictor) and the dimensions of cyberbullying are the dependent variable (predictor), and after conducting a multiple regression analysis using the stepwise regression method, it became clear that only the psychopathy trait was significant and the trait was out. The first and second (Machiavellianism and narcissism), and thus the trait of psychopathy is the trait capable of contributing to predicting the degree of the psychological dimension of cyberbullying, and the following tables illustrate this:

Table (8): Analysis of Variance for the Regression of Psychopathy Trait 3 on the Psychological Dimension 1 of Cyberbullying.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.220	1	.220	4.206	.043
Residual	5.649	108	.052		
Total	5.869	109			

It is clear from Table 8 that there is a statistically significant effect of the trait of psychopathy on the psychological dimension of cyberbullying, as the “F” value reached (4.206), which is a statistically significant value, which indicates that psychopathy predicted the psychological dimension of cyberbullying, while there is no effect of the two traits of Machiavellianism. and narcissism were excluded because they explain only a very weak amount of variance in the psychological dimension of cyberbullying.

Table (9): Results of Multiple Regression Analysis of Psychopathy Trait 3 on Psychological Dimension 1 of Cyberbullying.

Model	B	Std. Error	B Beta	T	Sig	R	%
(Constant)	.857	.109	194	7.883	.000	194	

Psychopathy	.082	.040	2.051	.043	19,4%
-------------	------	------	-------	------	-------

The Score for the Psychological Dimension of Cyberbullying = $.857 + .082 \times \text{Trait Psychopathy}$

It is clear from the data in Table 9 that the level of significance is less than (0.05), which is statistically significant, which indicates that the trait of psychopathy contributes to predicting the psychological dimension of cyberbullying with an effect rate of (19.4%), as the change occurring in the psychological dimension For cyberbullying, an increase of one degree corresponds to a change in the trait of psychopathy of (.082), which is a statistically significant value.

Table (10): Analysis of Variance For The Regression of Trait 3 of Psychopathy on the Academic Dimension 2 of Cyberbullying.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.451	1	.451	10.215	.002
Residual	4.768	108	.044		
Total	5.219	109			

It is clear from Table 10 that there is a statistically significant effect of the trait of psychopathy on the academic dimension of cyberbullying, as the “F” value reached (10.215), which is a statistically significant value, which indicates that psychopathy predicted the academic dimension of cyberbullying, while there is no effect of the two traits of Machiavellianism. and narcissism were excluded because they explain only a very weak amount of variance in the academic dimension of cyberbullying.

Table (11): Results of the Multiple Regression Analysis for Year 3 of Psychopathy on the Academic Dimension 2 of Cyberbullying.

Model	B	Std. Error	B Beta	T	Sig	R	%
(Constant)	.805	.100		8.060	.000		
Psychopathy	.117	.037	.294	3.196	.002	.294	29,4%

Academic Dimension Score of Cyberbullying = $.805 + .117 \times \text{Trait Psychopathy}$.

It is clear from the data in Table 11 that the level of significance is less than (0.05), which is statistically significant, which indicates that the trait of psychopathy contributes to predicting the academic dimension of cyberbullying with an effect rate of (29.4%), as the change occurring in the academic dimension For cyberbullying, an increase of one degree corresponds to a change in the trait of psychopathy of .117, which is a statistically significant value.

Table (12) Analysis of Variance for the Regression of Trait 3 Psychopathy on the Social Dimension 3 of Cyberbullying.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.353	1	.353	12.260	.001
Residual	3.107	108	.029		
Total	3.460	109			

It is clear from Table 12 that there is a statistically significant effect of the trait of psychopathy on the social dimension of cyberbullying, as the “F” value reached (12.260), which is a statistically significant value, which indicates that psychopathy predicted the social dimension of cyberbullying, while there is no effect of the two traits of Machiavellianism. and narcissism were excluded because they explain only a very weak amount of variance in the social dimension of cyberbullying.

Table (13): Results of the Multiple Regression Analysis for Year 3 of Psychopathy on the Social Dimension 3 of Cyberbullying.

Model	B	Std. Error	B Beta	T	Sig.	R	%
(Constant)	.914	.081		11.335	.000		
Psychopathy	.104	.030	.319	3.501	.001	.319	31,9%

Social Dimension Score for Cyberbullying = $.914 + .104 \times \text{Trait Psychopathy}$.

It is clear from the data in Table 13 that the level of significance is less than (0.05), which is statistically significant, which indicates that the trait of psychopathy contributes to predicting the social dimension of cyberbullying with an effect rate of (31.9%), as the change occurring in the social dimension For cyberbullying, an increase of one degree corresponds to a change in the trait of psychopathy of .104, which is a statistically significant value.

It is clear from the results of the tables that there is a significant effect of the trait of psychopathy on all dimensions of cyberbullying, as the T-test proved significant at high levels of statistical significance.

And that there is no effect for each of the traits (Machiavellianism - narcissism) on the dimensions of cyberbullying in the presence of the psychopathic trait, as the t-test for each trait was proven to be non-significant, and this result confirms that it is one of the traits of the dark triad of personality and is the only psychopathic trait that contributes to prediction. In all dimensions of cyberbullying, with varying levels of influence, Whereas the trait of psychopathy contributes to predicting the psychological dimension of cyberbullying with an influence rate of (19.4%) and contributes to predicting the academic dimension of cyberbullying with an influence rate of (29.4%). It also contributes to predicting the social dimension of cyberbullying with an influence rate of (31.9%), while the rest of the dark triad personality traits (Machiavellianism and narcissism) do not contribute to predicting the dimensions of cyberbullying.

This result seems logical; The trait of psychopathy, one of the dark triad traits, has a predictive ability for the psychological, academic, and social dimensions of cyberbullying among female students at King Khalid University in low percentages, as the psychopathic person has the dimensions of cyberbullying (psychological - academic - social). Which indicates that the ability to predict the psychological, academic, and social dimensions of cyberbullying among female students at King Khalid University has been achieved with the knowledge of one trait, which is the trait of psychopathy, one of the traits of the dark triad of personality.

Second Hypothesis

There is no statistically significant correlation between cyberbullying, the dark triad of personality, and the cumulative average variable among a sample of female students at King Khalid University. In order to assess the accuracy of this hypothesis, a one-way analysis of variance was employed, with the cumulative average being the focal point of investigation. The range of values (4.5-5), (4-4.4), (3.5-3.9) may be categorized into three distinct groups.

The following tables explain this:

Table (14): The Significance of the Differences between the Average Scores of the Dark Triad of personality among Female Students in the Current Research Sample according to Cumulative Average (N=110).

The Dark Triad of Personality	Source of difference	Sum of Squares	df	Mean Square	F	Sig.
Machiavellianism	Between Groups	.104	2	.052	.184	.832
	Within Groups	30.311	107	.283		

Narcissism	Total	30.416	109	No sig.		
	Between Groups	.528	2	.264	.627	.536
	Within Groups	45.042	107	.421		
Psychopathy	Total	45.569	109	No sig.		
	Between Groups	.733	2	.367	1.223	.298
	Within Groups	32.081	107	.300		
	Total	32.814	109	No sig.		

It is clear from Table 14 that there are no statistically significant differences between the average scores of the dark triad of personality according to the cumulative average among the female students in the sample of the current research, as the “F” value reached (0.184 - 0.627 - 1.223) respectively, and these values are not statistically significant.

This confirms that there are no attributable differences in the dark triad of personality for the cumulative average among female students at King Khalid University.

Table (15): Significance of the Differences between the Average Scores of Cyberbullying Dimensions among Female Students in the Current Research Sample according to Cumulative Average (N=110).

cyberbullying dimensions	Source of difference	Sum of Squares	df	Mean Square	F	S
Psychological	Between Groups	.020	2	.010		
	Within Groups	5.849	107	.055	.185	.
	Total	5.869	109			N
Academic	Between Groups	.094	2	.047		
	Within Groups	5.125	107	.048	.980	.
	Total	5.219	109			N
Social	Between Groups	.248	2	.124		
	Within Groups	3.212	107	.030	4.133	.
	Total	3.460	109			s

It is clear from Table 15 that there are no statistically significant differences between the average scores of each dimension (psychological – academic), It is attributed to the cumulative GPA variable among the female students of the current sample, where the value of “F” was (0,980 - 0,185), While there are statistically significant differences in the social dimension, where the “F” value reached (4,133), It is a significant value at a significance level (0,01),To determine the direction of these differences in favor of any cumulative average, one of the post-comparison tests was used, which is the “verbal test,” and table (16) shows this:

Table (16): Pairwise Comparisons Using the Scheffé Test, the Social Dimension of Cyberbullying (N=110).

Dependent Variable	Mean differences		
	(4.5 - 5) Excellent No.(85)	(4.4 – 4) very good No.(23)	(3.5 - 3.9) Good No.(2)
(4.5 – 5) Good	-		
(4.4 – 4) very good	.11496*	-	
(3.5 - 3.9) Excellent	.04265	.15761	-

* The Mean Difference is Significant at the (0.05) Level.

It is clear from the data in Table 16 that there are statistically significant differences at the

significance level (0.05) between the female students whose cumulative average is (4.5 - 5) and the female students whose cumulative average is (4.4 - 4) in the social dimension, in favor of the female students whose cumulative average is (4.4 - 4).

While there are no statistically significant differences between female students whose cumulative average is (3.5 - 3.9) and female students whose cumulative average is (4.4 - 4 or 4.5 - 5).

Discussion

The results of the first hypothesis show that there is a relationship between the trait of Machiavellianism among a small number of female students at King Khalid University (through their ability to form social relationships tactfully with others). And their practice of social cyberbullying may be due to residues that lie in the student's childhood, Which made her socially bully others. also There is a relationship between the narcissistic trait in their personalities (which appears in their self-glorification and increased ambitions) and their practice of cyber academic bullying. This may be due to the student who is characterized by the narcissistic trait using cyber academic bullying due to her lack of containment. There is also a strong relationship between the psychopathic trait of these female students (as it appears through boldness and impulsiveness) and their practice of academic cyberbullying (represented in their ability to deal with stressful situations in the academic field by bullying others through social media), as well as their practice of social bullying. Cyber (which is represented by their intentionally abusing and harming others when they feel anxious, bored, or suffering from violent behavior in the family), this may be due to the bold, impulsive personality practicing academic and social bullying due to the harsh family environment, while there is a moderate relationship between the trait of psychopathy and their practice of psychological bullying. Cyber (representing their ability to achieve their goals from others while being rarely bullied online).

The results of the first hypothesis also indicated that the predictive ability of the dimensions of cyberbullying among female students at King Khalid University was achieved with the knowledge of one trait, which is the trait of psychopathy, one of the traits of the dark triad of personality.

This result can be explained by the fact that some female students who have a psychopathic trait use psychological cyberbullying (19.4%) on others inside and outside the university to achieve their own goals. They also use academic cyberbullying (29.4%) by harming others in stressful situations in the academic field and bullying them within the university. Finally, they use social cyberbullying (31.9%) when they feel anxious, bored, or suffer from violent behavior from the family. They intentionally abuse others.

The results of the second hypothesis can be explained by saying that all female students at King Khalid University are keen on the cumulative average, and this does not affect personality traits. Which indicates that there are no differences in the dark triad personality traits attributable to average. A small number of female students practice psychological cyberbullying and academic cyberbullying, and their practice does not differ according to their cumulative average, while the female students who practice cybersocial bullying appear to differ in their practice according to their cumulative average, and after verifying bilateral comparisons using the Schiffe test to find out the direction of differences in the practice of social bullying. In favor of any cumulative average, as the cumulative average includes three categories: the cumulative

average (4.5 - 5) means an excellent grade, the cumulative average (4.4 - 4) means a good grade, the cumulative average (3.5 - 3.9) means a good grade, The results showed that there are statistically significant differences in the practice of cybersocial bullying by female students at King Khalid University, attributed to the benefit of female students whose cumulative average is (4.4 - 4), meaning their rating is very good, and they are very few of the female students in the sample. These results can be explained by the fact that female students at King Khalid University, who are few in number and have a very good cumulative GPA, practice social cyberbullying. This may be due to circumstances specific to them, such as their increased ambition to obtain an excellent grade. This makes these female students with a very good average practice social cyberbullying on others.

Conclusion

The current study aimed to verify the predictive ability of the dark triad of personality in dimensions of cyberbullying among a sample of female students at King Khalid University and to reveal differences in both the dark triad of personality and the dimensions of cyberbullying according to the cumulative average variable among these female students. The results resulted in achieving the possibility of predictive ability. Dimensions of cyberbullying among female students at King Khalid University with information about one trait, which is psychopathy, one of the characteristics of the dark triad of personality, Also There are statistically significant differences in the practice of cyber social bullying by some of these female students attributed to the benefit of female students whose cumulative average is (4.4 - 4), meaning their grade is very good. In light of the results, the study suggests including penalties for bullies in the university's ethical charter, and developing preventive programs to modify the dark personality traits of the minority. So that it does not worsen to a satisfactory level, there are also preventive programs to confront cyberbullying among university students, Also, raising awareness among university students about the phenomenon of cyberbullying and its harm to bullies and victims. The need to raise awareness of the ethical values that must be taken into account when using information technology and electronic communication means.

One of the repercussions resulting from the results of the current research is to draw the attention of specialists in the higher education sector to develop preventive and therapeutic guidance programs to pay attention to the personalities, behaviors and psychological health of university students so that the community produces scientifically and psychologically qualified cadres who advance it. Contributing to conducting future studies, such as studying the effectiveness of guidance programs to improve the ideas of cyberbullied students at different levels of education. Providing clinical assistance counseling programs for university students who exhibit dark triad personality traits.

Acknowledgement

"The authors extend their appreciation to the Deanship of Scientific Research at King Khalid University for funding this work through General Research Project under grant number (GRP/209/44).

References

- Abd ElFattah, A. (2022). Women and cyberbullying. *International Journal of Women's and Children's Studies*, Ain Shams University, Girls' College of Arts, Sciences and Education, 2(1), 49-58
- Adam, A. (2021). Cyberbullying and its psychological and social impact (a field sample on a sample of female university students in Khartoum). *Journal of Media Studies*, Arab Democratic Center, Berlin, Germany, (4), 60-81
- AlKhouli, H. (2005). Studying the relationship between the inability or lack of ability to express feelings (alexiasia) and Machiavellianism. *Journal of the Faculty of Education*, Benha University, (1), 1- 40
- Al-Otaibi, R. (2021). Levels of cyberbullying and their relationship to mental health among male and female secondary school students with academic failure. *Journal of Educational Sciences*, Imam Muhammad bin Saud Islamic University, 2(27), 487-548
- Alqahtani, S. (2016). Cyberbullying in colleges and universities: A survey of students' experiences and attitudes about cyberbullying. An unpublished doctoral dissertation. Howard University.
- AlShakhaybi, A. & Al-Jizani, A. (2020). Cyberbullying and its relationship to intellectual and psychological security in light of some demographic variables among students at Prince Sattam bin Abdulaziz University - Kingdom of Saudi Arabia. *Journal of Humanitarian and Literary Studies*, Kafrelsheikh University, Faculty of Arts, (22), 395-428
- Alshehri, A. & Elamrousy, N. (2023). The Psychometric Properties of the Cyberbullying Scale among University Students. *Migration Letters*, 20(S2), 1162-1168
- Badawi, Z. & Dabbar, H. (2023). The level of cyberbullying among university students in light of some variables: a field study on a sample of students at Kasdi-Merbah University, Ouargla, Algeria. *Rawafid Journal for Scientific Studies and Research in the Social and Human Sciences*, 7 (special issue), 438-465
- Barlett, C.(2016) .Exploring the correlations between emerging adulthood, Dark Triad traits, and aggressive behavior. *Personality and Individual Differences*, 101, 293-298
- Bogolyubova, O.; Panicheva, P.; Tikhonov, R.; Ivanov, V. & Ledovaya, Y. (2018). Dark personalities on Facebook: Harmful online behaviors and language. *Computers in Human Behavior*, 78, 151-159
- Bourahli, W. & Abd ElRazzaq, G. (2021). Cyberbullying behavior among children as a new form of bullying (responses, influences and coping strategies). *Al-Jami' Journal of Psychological Studies and Educational Sciences*, 6(2), 1176-1201
- Crysel, L.; Crosier, B. & Webster, G.(2013). The Dark Triad and risk behavior. *Personality and Individual Differences*, 54 (1), 35-40
- Drinkwater, K.; Dagnall, N. & Denovan, A. (2020). Dark Triad Traits and Sleep- Related Constructs: An Opinion Piece. *Frontiers in Psychology*. (11)505
- Fadel, F. & Bokarda, M. (2023). The effect of electronic bullying on the feeling of psychological security among female university students: a field study on students at the University of Camp "Algeria". *Rawafid Journal for Scientific Studies and Research in the Social and Human Sciences*, 7 (special issue), 281-292
- Goodboy, A. & Marti, M. (2015). The personality profile of a cyberbully: Examining the Dark Triad. *Computers in Human Behavior*, 49, 1-4
- Hillsberg, C. & Spak, H.(2006). Young adult literature as the centerpiece of an anti-bullying program in middle school. *Middle School Journal*, (38)2, 23-28.
- Jones, D. & Paulhus, D.(2013). Introducing the Short Dark Triad (SD3): A Brief Measure of Dark Personality Traits. *Assessment*, 21(1), 28-41
- Kavineh, A. (2022). Cyberbullying (bully-victim) among university students in Jordan in light of specialization, cumulative GPA, birth order, age, and gender. *Irbid International Journal of Educational and Psychological Sciences*, 5(3), 169-192

- Knight, N.; Dahlen, E.; Bullock-Yowell, E. & Madson, M. (2018). The HEXACO model of personality and Dark Triad in relational aggression. *Personality and Individual Differences*, 122, 109–114
- Lyons, M.; Evans, K., & Helle, S. (2019). Do "Dark Personality Features Buffer Against Adversity? The associations between cumulative life stress. *SAGE Open*, (9), 21582440,18822383
- Maasho, M. & Nabar, R. (2023). Cyberbullying: A study into the causes in the university environment: A field study at Saida University. *Rawafid Journal for Scientific Studies and Research in the Social and Human Sciences*, 7 (special issue), 145-163
- Mahmoud, H. (2022). Exposure to cyberbullying and its relationship to suicidal thoughts among a sample of university students. *Journal of Counseling Psychology*, 35(138), 441-474
- Mahmoud, S. (2021). Cyberbullying and its relationship to psychological security among university students. *Nile Valley Journal for Human, Social and Educational Studies and Research*, Cairo University, Khartoum Branch, Faculty of Arts, 29 (29), 501-540
- Moor, L. & Anderson, J., (2019). A systematic literature review of the relationship between dark personality traits and antisocial online behaviours. *Personality and Individual Differences*, 144, 40–55
- Mthias, D.; Anna, W. & Anett, W.(2022). Cyber-bullying among university students: Concurrent relations to belief in a just world and to empathy. *Current Psychology*, <https://doi.org/10.1007/s12144-022-03239-z>
- Muris, P.; Merckelbach, H.; Otgaar, H. & Meijer, E.(2017).The Malevolent Side of Human Nature. *Perspect Psychol Sci*, 12(2),183-204
- Park, M.; Golden, K.; Vickers, S.; Jidong, D.; & Raj, S.(2021). Sociocultural values, attitudes and risk factors associated with adolescent cyberbullying in East Asia: A systematic review. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*.15(1).artical 5,1-19 <https://doi.org/10.5817/CP2021-1-5>
- Paulhus, D. & Williams, K.(2002). The Dark Triad of personality; narcissism, Machiavellianism and psychopathy. *Journal of Research in Personality*, 36, 556–563.
- Pilch, I. (2020). As cold as a fish? Relationships between the Dark Triad personality traits and affective experience during the day: A Day reconstruction study. *PLoS ONE*. 15(2): e0229625. doi: 10. 1371 / journal.pone
- Revital, N.; Joseph, G. &Anton, A.(2022). Locating the Dark Triad in a Multidimensional Personality Space. *The Spanish Journal of Psychology*, 25(14),1-15
- Sagr, H. (2021). The dark triad of personality and its relationship to traditional and electronic bullying among secondary school students. *Egyptian Journal of Psychological Studies*, 31 (110), 401-440
- Szabo, E. & Jonesb, D.(2019). Gender differences moderate Machiavellianism and impulsivity: Implications for Dark Triad research. *Personality and Individual Differences*,141,160–165
- Taha, M. (2022). The relative contribution of difficulties in regulating emotion and moral detachment in predicting the dark triad of personality (narcissism, Machiavellianism, and psychopathy) among university students. *Egyptian Journal of Psychological Studies*, 32 (116), 211-276
- VanGeel, M.; Goemans, A.; Toprak, F. & Vedder, P. (2016). Which personality traits are related to traditional bullying and cyberbullying? A study with the Big Five, Dark Triad and sadism . *Personality and Individual Differences*,106, 231-235