



Research paper

## The Relationship between Dark Personality Traits and Cyber Aggression with the Mediating Role of Showing off Online in Cyberspace in Adolescents

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### Abstract

The present study was conducted to investigate the relationship between dark personality traits and cyber aggression through the mediation of Showing off online in cyberspace in adolescents. The research design was a descriptive method of correlation and structural equation modeling .The statistical population of the research was made up of male students in the second year of high school in Tabriz, Iran, in the academic year of 2023-2024, of which 327 people were selected by random cluster sampling and responded to the tools of cyber aggression, self-disclosure, and dirty dozen. Pearson's correlation method and structural equation modeling were used to analyze the data. The results indicated that Showing off online in cyberspace plays a mediating role in the relationship between dark personality traits and cyber aggression. It is suggested that mental health professionals use cognitive behavioral interventions to inject new insights.

**Keywords:** Cyber aggression, Dark personality traits, Showing off online

### Introduction

For children and adolescents, the internet can serve as a useful resource for seeking knowledge and communicating with others (Du et al., 2024). The possibility of changing the identity and the lack of age limit causes the high interest of citizens to use these networks (Salimi Qala et al., 2023). With entering adolescence, the number of online activities on the Internet platform increases. The Internet can bring a series of negative problems such as cyber attacks. Children and adolescents may commit cyber-aggression. The general aggression model has shown that individual personality is an important predictor that can influence aggression. Some personality variables are considered risk factors and can increase the possibility of aggression. The presence of characteristics such as pessimistic Machiavellianism, dysregulated psychopathy, and narcissism can increase the likelihood of aggressive behaviors (Nocera et al., 2022). People use Showing off online as a narcissistic trait and as a natural personality style to satisfy their narcissistic needs, and if their expectations are not properly met, it will appear as cyber aggression (Fang et al., 2023). It can be said that due to the increase in the use of virtual space

and the occurrence of often unrealistic self-presentations in teenagers' subsequent occurrence of aggression, identifying the factors of this type of behavior is necessary, therefore, based on the mentioned cases, the present research was conducted to investigate the general hypothesis that dark personality traits and cyber aggression have a significant relationship with the mediating role of online self-presentation in cyberspace in teenagers.

## **Method**

The research design was descriptive correlation and structural equation method. The statistical population of the research is male students in the second year of high school in Tabriz city in the academic year 2023-2024, of which 327 students were selected by random cluster sampling. The entry criteria for secondary school students were consent to participate in the research and the criteria for exiting the study was the lack of consent of the subjects to participate in the research. Ethical considerations in the research included providing information about the purpose of the research, the implementation method, the principle of confidentiality, the right to choose to cooperate, and the right to withdraw from the current research. Descriptive data analysis was done using SPSS-24 software and structural equation analysis was done using Amos-26 software.

## **Tools**

**Dark Personality Traits Questionnaire (DTDD):** This questionnaire was created by Jonason and Webster (2010) and contains 12 questions and has three components: narcissism, Machiavellianism, and antisociality. The test-retest coefficient for the total score was 0.75. In the present study, Cronbach's alpha was 0.79 for the total score and 0.78, 0.85, and 0.63 for the Machiavellianism, narcissism, and antisocial subscales, respectively.

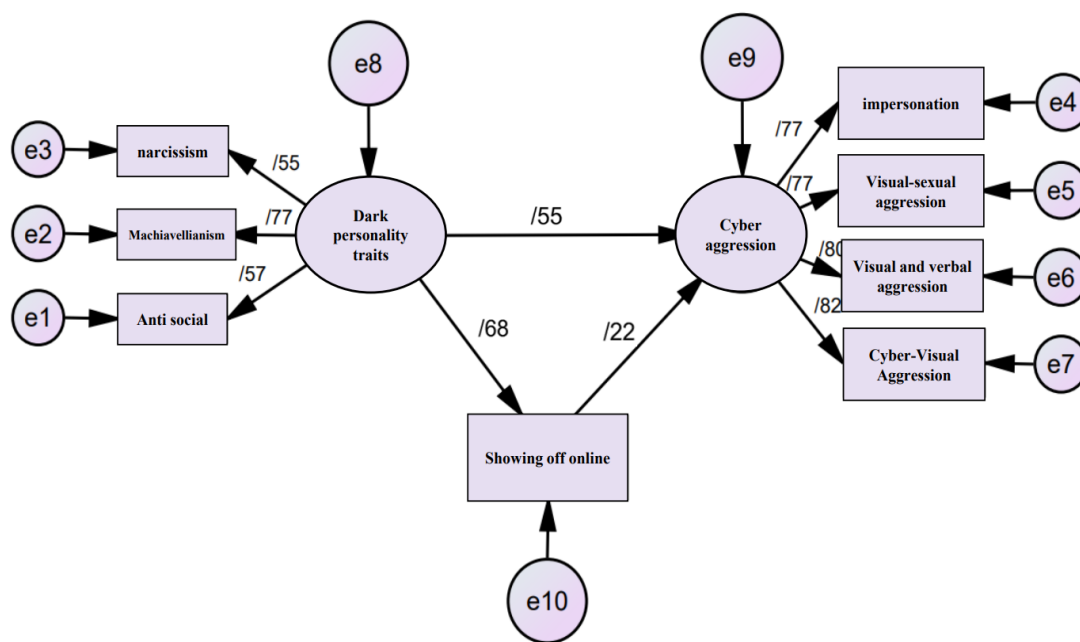
**Self-Disclosure Scale (SDS) (Adapted from the Narcissism Questionnaire in Cyberspace):** This scale is one of the components of the online narcissism questionnaire prepared by Chou and Faren (2015). It has 7 items. The reliability of this tool was reported using the internal consistency method and Cronbach's alpha of 0.91. In the present study, Cronbach's alpha was equal to 0.75.

**Cyber Aggression Questionnaire for Adolescents (CAQA):** This questionnaire was designed and validated by Alvarez García et al. and colleagues in 2016. It has 19 items and four main components measure impersonation, visual-sexual aggression, verbal aggression and rejection, and visual cyber aggression. Reliability was obtained by the internal consistency method by calculating Cronbach's alpha coefficient of 0.82. In the present study, Cronbach's alpha was equal to 0.78.

## **Results**

Before evaluating the measurement model and structural model, the important assumptions of the measurement model and structural equations (data normality) were examined, and the results showed that this assumption is valid. The general fit indices of the model, which are the

root mean square error of approximation (RMSER) (0.05), the normalized fit index (NFI) (0.91), the comparative fit index (CFI) (0.92), the Incremental goodness-of-fit (IFI) (0.92), adjusted or adaptive goodness-of-fit index (AGFI) (0.87) and goodness-of-fit index (GFI) (0.91) show that the model has a good fit. Figure (1) shows the general model of the research along with the standard coefficients of the paths.



**Figure 1: The output of the final model along with the standard coefficients of the paths**

Table (1) shows the direct and indirect structural effects.

**Table 1: The structural direct and indirect effects**

Routes	$\beta$	Standard Error	Critical Ratio	P
<b>Dark personality traits → Cyber aggression</b>	0.55	0.13	5.31	0.001
<b>Dark personality traits → Showing off online</b>	0.68	0.25	9.29	0.001
<b>Showing off online → Cyber aggression</b>	0.22	0.03	1.64	0.003
<b>Dark personality traits → Showing off online → Cyber aggression</b>	0.15	0.12	4.17	0.002

The results showed that there is a direct and significant relationship between the variables ( $P < 0.05$ ). Also, the results showed that there is a significant relationship between dark personality traits and cyber aggression through Showing off online in cyberspace ( $P < 0.05$ ).

### Discussion and Conclusion

According to the results, it can be said that the presence of characteristics such as Machiavellianism, psychopathy, and narcissism caused by a malicious desire for society and emotional coldness in people can increase the possibility of their cyber-aggressive behavior. Also, their anonymity in cyberspace can make these people easily behave aggressively. As the

results showed, there is a relationship between dark personality traits and Showing off online in cyberspace. To achieve their goals, people with dark personality traits adopt strategies through Showing off online in cyberspace. People with more ostentatious behavior want to satisfy their need for narcissism and attention. These people have low self-esteem and if they cannot lower this desire for narcissism and attention, they may become angry and hurt others through cyber aggression. According to the results, there is a relationship between Showing off online in cyberspace and cyber aggression. Since this research was conducted in a school setting and focused on second-secondary students, caution should be exercised when generalizing these findings to non-educational contexts or other educational levels. It is recommended that the proposed model be tested across different educational levels and specifically among girls, followed by comparisons of the results.

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## Conflicts of interest

The authors found no conflict of interest.



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