

The Mediating Role Of Mental Well-Being In The Relationship Between Psychopathy And Online Aggression Among Female Students

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Abstract

*In a rapidly evolving society, the ubiquity of digital technology has reached unprecedented levels, particularly among young individuals who spend a significant portion of their time immersed in the digital realm. However, these interactions can sometimes lead to negative outcomes. Therefore, the present study aims to explore the impact of mental well-being on the relationship between psychopathy and online aggression among non-clinical female students from western Romania. The study sample consisted of 119 female students from Aurel Vlaicu University of Arad, Romania, with a mean age of 27.96 years and a standard deviation of 10.36. Psychopathy (P) was assessed using the Short Dark Triad (SD-3), while Online Aggression (OA) was measured using a single-item scale developed by the authors. Mental Well-Being (MWB) was evaluated using The Warwick-Edinburgh Mental Well-being Scale. The results of the investigation revealed significant correlations among all the variables under study, i.e. between OA and P ($r = .24^{**}$), MWB and OA ($r = -.42^{**}$) and P and MWB ($r = -.29^{**}$). The incorporation of MWB as a mediator in the analysis resulted in the complete mediation of the relationship between P and OA by mental MWB, with a standardized indirect effect of .11 with a 95% coefficient interval spanning from .03 to .23. These results emphasize the crucial role of mental well-being in attenuating aggressive behaviors in the online environment in the case of non-clinical female students.*

Keywords: psychopathy; online aggression; mental well-being; mediation; female; female aggression.

INTRODUCTION

As technology continues to develop, the prevalence of digital devices is more common in our times than ever before. Today, individuals, particularly young people, are spending a majority of their time interacting with the digital environment (Olson & Bellmore, 2021). Our entire civilization relies on technology to function and individuals use it for various ways. Besides using technology as a necessity, individuals also use technology to interact with each other, mainly communicating and investing into their digital image through social media platforms. While the digital space continues to grow, so does the presence of online aggression (Ponte et al. 2021; Rad et al., 2019).

There are many perspectives in literature that offer explanations regarding aggressive behaviors (Shoemaker, 2010) and many of them are focusing on the overt aspect of aggression. Online aggression can be seen as more of a covert type of behavior and studies from literature postulate that female aggression tends to be often characterized by a more indirect type of behavior, i.e. relational aggression (Björkqvist, 2018; Nivette et al., 2019; Fagan & Lindsey, 2014) and the online environment can offer the optimal landscape for this type of behavior to manifest.

The highlighted gap in knowledge for this research lies in its focus on the intersection of

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psychopathic tendencies, mental well-being, and online aggression specifically among female participants. While previous studies have investigated these factors individually or in different populations, this research uniquely contributes to the field by examining how psychopathic traits in female students may influence their mental well-being and subsequently their likelihood of engaging in online aggression. This focus on psychopathy and mental well-being as predictors of online aggression in a specific demographic group adds valuable insights to behavior science literature.

Moreover, the study delves into potential explanations for online aggression among females, including past victimization, anonymity in online environments, and social comparison theory (Cava et al., 2020; Felmlee & Faris, 2016; Zimmerman & Ybarra, 2016; Festinger, 1954; Chae, 2018). By synthesizing these perspectives and incorporating them into the analysis, the research provides a more comprehensive understanding of the factors contributing to online aggression among female students.

LITERATURE REVIEW

Online aggression refers to any behavior that is intended to harm or hurt someone else in a virtual setting, such as through social media, messaging platforms, or online forums (Olson & Bellmore, 2021). This behavior can take many forms, including cyber-bullying, trolling, harassment, and hate speech (Rad et al., 2019).

From a psychological perspective, online aggression can be explained by several factors. One of the main factors is anonymity, which allows individuals to behave in ways they might not otherwise in face-to-face interactions (Zimmerman & Ybarra, 2016; Runcan, 2017; Runcan, 2020). When individuals feel anonymous, they may feel less accountable for their actions and are more likely to engage in aggressive behavior without fear of consequences. Another factor that can contribute to online aggression is the lack of nonverbal cues in online communication (Runions et al., 2017). Without the capacity to interpret facial signals, physical gestures, and paraverbal information, individuals may misinterpret messages or perceive them as hostile, which can lead to aggressive responses. From another point of view, social identity theory argues that individuals often acquire a feeling of self-esteem from their membership in a particular group or social category (Hogg, 2016, Runcan, et al., 2023). When individuals feel that their group is being threatened or attacked, they can delve into digital aggression as a form of defending their group's identity and asserting their own self-worth. Furthermore, research has shown that some individuals may be more prone to online aggression due to personality traits such as psychopathy (Kurek et al., 2019; Pabian et al., 2015, Runcan, 2010). These individuals may be more likely to engage in online aggression as a way of seeking attention, boosting their own self-esteem, or exerting power over others.

Online aggression is a growing concern in the digital age, and research has shown that it affects both males and females (Catherine & Michael, 2016). However, studies have found that females may engage in different forms of aggression compared to males (Nivette et al., 2019; Fagan & Lindsey, 2014). Female aggression can be more indirect compared to males and it is often characterized by relational aggression, which involves social exclusion, spreading rumors or gossip, and other subtle forms of aggression that damage relationships and reputations (Björkqvist, 2018).

Literature postulates that women incline to allocate more time on social media platforms and men favor to engage more with online games (Su et al., 2020). From a psychological

perspective, a possible interpretation for female online aggression can be explained with the social comparison theory (Festinger, 1954). This approach postulates that human beings have a natural inclination to measure themselves to others, and social media platforms can provide an opportunity to do so on a large scale. When females engage in social comparison on social media, they may feel threatened by the success or attractiveness of other females, which in turn can evolve into sensations of jealousy, envy, and reduced levels of self-esteem (Chae, 2018). Additionally, the anonymity and distance provided by the digital environment may lead to a lack of empathy and a decreased sense of responsibility for one's actions, which may further contribute to online aggression (Zimmerman & Ybarra, 2016).

Furthermore, studies from literature have shown that females who engage in online aggression may have experienced victimization or bullying themselves, leading to a desire for revenge or retaliation (Cava et al., 2020; Felmlee & Faris, 2016). This may be especially true for females who have experienced relational aggression in their offline lives.

Aggressive behavior is usually associated with negative psychological and socio-economic factors, i.e. low levels or lack of empathy, high impulsivity levels, perceived loneliness, substance abuse, low levels of education, lack of opportunities, negative peer examples, exposure to violence and many more (Shoemaker, 2010; Demeter & Rad, 2020; Demeter et al., 2021). There are multiple personality facets that express aggressive behavior and studies show that aggression is most commonly met in psychopathy, in both male and female individuals (Reidy et al., 2011; Lau & Marsee, 2013; Wynn et al., 2012).

It is important to mention that studies from literature found out that mental wellbeing may have a significant part in the connection between psychopathy and aggressive behavior (Fekih-Romdhane et al., 2020; Przybylski & Bowes, 2017). Psychopathic tendencies are represented by absence of empathy, manipulative behavior and an indifference for the rights and emotions of other individuals (Reidy et al., 2011) and mental well-being can encompass a range of factors, such as emotional stability, self-esteem, and social support (Tennant et al., 2007; Gavrilă-Ardelean, 2016). In this light, individuals with psychopathic tendencies may exhibit traits that are incompatible with positive mental well-being, such as impulsivity, deceitfulness, and a diminished capacity for guilt or remorse. It is necessary to acknowledge the fact that psychopathy is typically considered separate from mental pathology (Pullman et al., 2021).

As regards to the online aggression component, mental well-being can play a crucial role in determining one's inclination for engaging in harmful behaviors online. Individuals who experience poor mental well-being, such as elevated levels of stress, anxiety, or depression, can be more prone to aggression in online environments (Vranjes et al., 2021; Wirawan et al., 2022; Runcan, Nadolu, David, 2023). It is necessary to take into consideration that not all individuals with low levels of mental well-being will display psychopathic traits or engage in online aggression.

Understanding the impact of mental well-being on psychopathy and online aggression is very important for developing effective prevention and intervention strategies. Promoting positive mental well-being through support networks, therapy, and education can help mitigate the risk factors associated with psychopathy and reduce the prevalence of online aggression. Fostering empathy, promoting digital literacy, and encouraging responsible online behavior can encourage the development of a healthier and safer online climate for every user. In this light, the present study wants to investigate the impact of mental well-being on the relationship between psychopathy and online aggression of female students from Romania.

Research Objectives and hypotheses of the research

The main goal of this study is to understand how mental well-being (MWB) affects the link between psychopathy (P) and online aggression (OA). It is hypothesized that MWB plays a mediating role in the relationship between P and OA. This research aims to provide insights into the psychological factors involved in online aggressive behavior by examining the influence of MWB on the association between P and OA, in female students.

METHOD

Participants

In the current study, responses were collected based on convenience sampling method. Data collection took place during the exam period at the University and only students from the Educational Sciences Department participated in the study. Participants who did not complete the entire set of instruments were excluded from the analysis and only female students were involved in the study. The majority of the students enrolled at the Educational

Sciences department from Aurel Vlaicu University of Arad are female.

The final sample consisted of 119 female students from Aurel Vlaicu University of Arad (Romania), with an average age of 27.96 years and a standard deviation (SD) of 10.36. All participants volunteered to take part in the study and provided informed consent. Data collection occurred in February 2022.

Instruments

Short Dark Triad (SD-3) - The Dark Triad is a term used to describe three interrelated yet distinct personality traits that are generally seen as harmful. These traits are Machiavellianism, characterized by manipulative behavior; Narcissism, or an extreme focus on oneself; and Psychopathy, which involves a lack of empathy. Traditionally, these traits have been evaluated using three separate tests, however, the differing formats of these tests (some being multiple-choice, others scale-rating) created difficulties in administering and interpreting them. To address these issues, Delroy Paulhus and Daniel Jones developed the Short Dark Triad test in 2011 (Jones & Paulhus, 2014). This unified test, consisting of 27 statements, streamlines the assessment process and reduces the overall time required. The average completion time is approximately 2 minutes and 27 seconds. In the validation study, the instrument presented a solid internal consistency, with Alpha scores of .71 (for Narcissism), .77 (for Machiavellianism), and .80 (for Psychopathy).

In the present investigation, a simple Romanian translation we deployed and can be found online for free usage (<http://www.researchcentral.ro/scale.php>). We utilized the Psychopathy subscale from the entire instrument, demonstrating good internal consistency with a Cronbach's alpha score of .77.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS); Tennant et al., 2007) is a tool designed to assess mental well-being among adults in the UK. It consists of 14 items, each rated on a 1-5 Likert scale, with scores ranging from 14 to 70. While primarily intended for individuals aged 16 and above in the UK, it has shown applicability beyond this demographic, with scores typically following a normal distribution. Although not specifically designed to identify individuals with extremely high or low mental well-being, variations in scores have been linked to factors such as housing tenure, employment status, and marital status. Validation studies have demonstrated strong reliability of the WEMWBS, with Cronbach's alpha scores of 0.89 for student populations and 0.91 for the general population (Tennant et al., 2007).

For this study, a straightforward Romanian translation of the WEMWBS was utilized, available online (<http://www.researchcentral.ro/scale.php>). The internal consistency of the Romanian version was high, with a Cronbach's alpha score of 0.92.

Online aggression - In this study, a single-item scale was developed to measure online aggression. This item was originally created in Romanian and translated into English as "Have you ever been aggressive towards someone online before?" Participants responded to this item on a Likert scale ranging from 0 to 5, where 0 indicated "never" and 5 represented "always". This scale allowed us to quantify participants' engagement in online aggression, with higher scores indicating more frequent aggressive behavior.

The single-item scale method was chosen to assess online aggression in order to minimize participant fatigue or frustration. Given the extensive nature of our instrument package, we aimed to avoid redundancy and prevent participants from becoming bored or annoyed by repetitive questions (Allen et al., 2022). As part of our study, we included four preliminary statements, one of which measured the frequency of online aggression, to investigate their potential correlations with our main variables of interest: Psychopathy and Mental Well-being.

PROCEDURE

The study adopts a non-experimental mediation analysis design. In this design, Psychopathy (P) is considered the independent variable (IV) and the level of online aggression (OA) is considered the dependent variable (DV). Additionally, a mediator

variable (MV) was introduced, which is the degree of mental well-being (MWB).

Participants completed our set of instruments using a traditional pen-and-paper approach. Participation in the study was voluntary, and participants provided informed consent, agreeing to take part and receiving assurances regarding the confidentiality of their data.

To compute the mediation effect, a series of procedures outlined by Shrout, Bolger (2002) and Hayes (2013) were followed, such as:

- (1) Assessing whether there is a statistically significant association ($p < 0.05$) among all the examined variables (P, OA, and MWB; Table 1)
- (2) Establishing path c by performing regression of the dependent variable (OA) on the independent variable (P) to validate that the independent variable significantly predicts the dependent variable (refer to Table 2).
- (3) Establishing path a by conducting a regression of the mediator variable (MWB) on the independent variable (P) to confirm that the independent variable notably predicts the mediator variable (see Table 2).
- (4) Establishing paths b and c' by performing regression of the dependent variable (DV) with both the mediator variable (MV) and the independent variable (IV) to validate that the MV significantly predicts the DV (path b). For a mediation result to occur, path b must hold statistical significance, whereas path c' should either diminish in significance (indicating partial mediation) or become statistically insignificant (implying complete mediation) (refer to Table 2).
- (5) Assessing the statistical significance of the indirect effect by implementing bootstrapping techniques and the Sobel test. This process is able to be performed applying the PROCESS macro variant 2.16 (Hayes, 2012-2018) on SPSS Statistics variant 20 (the variant employed in this research).

RESULTS

Before conducting the main operations for this research, the descriptive statistics for Psychopathy (P), Mental Well-Being (MWB), and Online Aggression (OA) will be presented in Table 1.

Table 1: Descriptive statistics for P, OA, and MWB (N = 119)

Variable	Minimum	Maximum	Mean	Standard Deviation
Online Aggression	0	3	.14	.44
Mental Well-Being	1.93	5	3.93	.65
Psychopathy	1	4.33	1.96	.70

The minimum observed level of online aggression is 0, the maximum is 3, with a mean of .14 and a standard deviation of .44. This suggests that, on average, participants reported low levels of online aggression, but there is notable variability in responses, with some individuals reporting higher levels.

The minimum mental well-being score observed is 1.93, the maximum is 5, with a mean of 3.93 and a standard deviation of .65. This indicates that, on average, participants reported relatively high levels of mental well-being, but again, there is variability in responses, with some individuals reporting lower levels.

The minimum psychopathy score observed is 1, the maximum is 4.33, with a mean of 1.96 and a standard deviation of .70. This suggests that, on average, participants reported relatively low levels of psychopathy, but as with the other variables, there is variability in

responses, with some individuals reporting higher levels.

The results of the correlation analysis, examining the relationships between Psychopathy (P), Mental Well-Being (MWB), and Online Aggression (OA) among the 119 participants, are presented in Table 2.

Table 2: Pearson's method, between P, OA, and MWB (N = 119)

Variable	Psychopathy	Mental Well-Being
Online Aggression	.24**	-.42**
Psychopathy	1.00	-.29**

Note. * $p < .05$. ** $p < .01$.

The results analysis reveals significant associations between Psychopathy (P), Mental Well-Being (MWB), and Online Aggression (OA) among the 119 participants.

Firstly, there is a strong positive correlation between Online Aggression (OA) and Psychopathy (P) ($r = .24, p < .01$). This indicates that individuals who exhibit higher levels of psychopathic traits are more likely to engage in online aggressive behaviors. This finding aligns with previous research suggesting a link between psychopathy and antisocial behaviors, including aggression, in both online and offline contexts.

Secondly, there is a strong negative correlation between Mental Well-Being (MWB) and Online Aggression (OA) ($r = -.42, p < .01$). This suggests that individuals with higher levels of mental well-being are less likely to engage in online aggressive behaviors. This finding underscores the importance of mental well-being in promoting positive social interactions and reducing aggressive tendencies, even in the online environment.

Lastly, there is a moderate negative correlation between Psychopathy (P) and Mental Well-Being (MWB) ($r = -.29, p < .01$). This indicates that individuals with higher levels of psychopathic traits tend to report lower levels of mental well-being. This association is consistent with the literature on psychopathy, which often characterizes individuals with psychopathic tendencies as lacking empathy, experiencing shallow emotions, and exhibiting poor mental health outcomes.

Overall, these results suggest complex interrelationships between psychopathy, mental well-being, and online aggression. Psychopathic traits appear to be positively associated with online aggression and negatively associated with mental well-being, while mental well-being itself is negatively associated with online aggression. These findings highlight the importance of considering psychological mechanisms, such as empathy deficits and emotional regulation, in understanding the dynamics of online behavior and its implications for mental health.

Further, we have proceeded with the mediation analysis, using SPSS v.26 software.

Table 3: Mediation analysis

Path	r^2	F	df	p	B	SE(B)	β	p	95% CI
c	.06	6.96	(1,118)	< .01	.15	.06	.24	< .01	.04, .26
a	.09	10.95	(1,118)	< .01	-.27	.08	-.29	< .01	-.44, -.11
b & c'	.19	13.81	(2,118)	< .01					
c'					.08	.06	.12	> .05	-.03, .19
b					-.26	.06	-.39	< .01	-.38, -.14
a*b							.11		

r^2 = explained variation/total variation; F = ANOVA; B = unstandardized coefficients; standard error (SE); β = standardized coefficients; degree of freedom (df); p = level of significance; 95% confidence interval (CI) = 95.0% confidence interval for B.

As indicated in Table 3, the standardized regression coefficients elucidate statistically significant relationships between the level of P and MWB (path a, $B = -.27, SE = .08, \beta = -.29, p < .01$), as well as between MWB and the level of OA (path b, $B = -.26, SE = .06, \beta = -.39, p < .01$). Specifically, the standardized indirect effect, calculated as the product of

the coefficients $a (-.29) \times b (-.39) = .11$, lends support to the mediation hypothesis. Upon integrating the mediator (full mediation), Psychopathy (P) ceased to serve as a relevant predictor of OA (path c' , $B = .08$, $SE = .06$, $\beta = .12$, $> .05$). The predictor variables, namely P and MWB, collectively accounted for approximately 19% of the variance in Online Aggression ($r^2 = .19$).

The computation of unstandardized indirect effects was conducted across 5000 bootstrapped instances, and the 95% confidence interval (CI) was established to delineate the range of indirect effects. The bootstrapped unstandardized indirect effect yielded a value of $B = .07$ ($SE = .04$, 95% CI = .02, .19). Meanwhile, the complete standardized indirect effect was estimated at $\beta = .11$ ($SE = .05$, 95% CI = .03, .23.) Furthermore, the Sobel test yielded a score of .07 ($SE = .03$, $p < .01$), underscoring the statistical significance of the indirect effect.

In summary, our results indicate that mental well-being serves as a significant mediator in the association between psychopathy and online aggression. This underscores the necessity of analyzing psychological mechanisms to comprehend online aggressive behavior fully. Psychopathy, characterized by traits such as callousness and lack of empathy, has been linked to various negative outcomes, including aggression, both offline and online (Pisano et al., 2017). Our study extends this understanding by revealing that the impact of psychopathy on online aggression is mediated by an individual's level of mental well-being. Individuals with higher levels of psychopathy tend to exhibit lower levels of mental well-being, which, in turn, is associated with increased tendencies towards online aggression. This suggests that the psychological well-being of individuals plays a crucial role in moderating the expression of aggressive behaviors in online settings.

The findings underscore the importance of addressing mental well-being as a potential intervention target in efforts to mitigate online aggression. Nonetheless, Interventions aimed at improving mental well-being may serve as protective factors against the manifestation of aggressive behaviors in online environments. Thus, understanding the mediating role of mental well-being sheds light on the underlying psychological mechanisms driving online aggression.

DISCUSSION AND CONCLUSION

Discussion of Main Results

In this study, we explored the mediating effect of mental well-being (MWB) on the relationship between psychopathy (P) and online aggression (OA) among female students in Romania. Our findings revealed that higher levels of psychopathy and lower levels of mental well-being were associated with increased tendencies towards online aggression. Conversely, lower levels of psychopathy and higher levels of mental well-being were linked to a reduced likelihood of engaging in online aggression.

Furthermore, our results indicated that the relationship between psychopathy and online aggression was fully mediated by mental well-being. This suggests that mental well-being plays a critical role in explaining the link between psychopathy and online aggression among non-clinical female students from western Romania.

The findings are consistent with the scientific literature (Reidy et al., 2011; Lau & Marsee, 2013; Wynn et al., 2012; Fekih-Romdhane et al., 2020; Przybylski & Bowes, 2017), meaning that increased levels of psychopathy can contribute to the emergence of aggressive behavior or online aggression, as presented in our study. Shortage of empathy, manipulative behavior, and ignorance for the rights and feelings of individuals (Reidy et al., 2011) may increase an individual's chances towards aggression. Furthermore, anonymity (Zimmerman & Ybarra, 2016) and easy access can offer a perfect medium for individuals with high level of psychopathy to express aggressive behavior in online environments.

Findings also suggest that mental well-being can play a significant role the emergence and manifestation of psychopathy. Mental well-being can be represented by a series of

characteristics, i.e. emotional stability, self-esteem, and social support (Tennant et al., 2007) and individuals with psychopathic tendencies can express characteristics that are not compatible with positive mental well-being. In this light, studies suggest that individuals who experience poor mental well-being can express aggression in online environments (Vranjes et al., 2021; Wirawan et al., 2022).

Furthermore, from a multidisciplinary perspective, sociology offers insights into the social dynamics at play in online aggression. The study underscores how anonymity and easy access to online platforms can provide a conducive environment for individuals with psychopathic tendencies to express aggressive behavior (Zimmerman & Ybarra, 2016; Olson & Bellmore, 2021). This reflects broader sociological discussions on the impact of technology on social behavior, particularly regarding how online spaces can amplify certain personality traits and facilitate antisocial behavior.

Other multidisciplinary perspectives, i.e. criminology, provide a lens through which to examine the link between psychopathy and online aggression in the context of criminal behavior. The study's findings contribute to the understanding of risk factors for engaging in cybercrime, demonstrating how individual characteristics like psychopathy and mental well-being intersect with online behavior. This aligns with criminological theories on the etiology of crime (Shoemaker, 2010), highlighting the relevance of psychological factors in explaining deviant behavior in digital environments.

From technological perspective, the study sheds light on the role of digital platforms in facilitating a safer and more inclusive cyber space. Understanding the psychological factors, such as psychopathy and mental well-being, that influence behavior in online spaces is crucial for designing effective interventions and technological solutions to mitigate cyberbullying and harassment. This interdisciplinary approach recognizes the intersection between technology, psychology, and social dynamics in shaping online behavior.

LIMITATIONS

It is worth noting that this study has several limitations. It primarily focused on a non-clinical sample of female students from western Romania, thus the findings may not necessarily be generalized to other populations. In forthcoming studies, it would be valuable to look into whether these results can be replicated in different contexts, such as among male students, different age groups, or in different cultural contexts. Additionally, more in-depth studies are needed to further explore the mechanisms underlying the mediating role of mental well-being on the association between psychopathy and online aggression. In this light, future research could focus on identifying which aspects of well-being (i.e., emotional, psychological, or social well-being) are the most critical in mediating this relationship.

Another limitation may lie in the small number of participants ($N = 119$) which may reduce the generalizability of findings to broader populations, however if the population under study is relatively homogeneous (e.g., a specific age group, gender, or occupation), smaller samples may still provide valid insights into the psychological phenomena of interest (Hennink & Kaiser, 2022). In this light, future investigations can explore the studied variables on a larger sample of female participants from different contexts and cultures.

Another significant drawback of the present investigation lies in the reliance on a single item scale to measure the online aggression dimension. It is important to note that a single-item measure may have limitations in terms of its reliability and validity, and for future research it is recommended to use multiple items or a standardized measure to ensure the robustness of the measure. In the present research we measured a generalized impression of online aggression. Future studies can investigate more specific aspects of online aggression, i.e. cyberstalking, cyber-bullying, trolling, harassment, and hate speech.

Implications for Behavioral Science

One potential implication of this research is that improving the mental well-being of female

students could be an effective way to decrease the level of online aggression, even if the individual's psychopathy level is high. This could potentially be achieved by developing and implementing a range of mental health promotion programs in educational institutions. Cultivating empathy, enhancing digital literacy, and advocating for responsible behavior on the internet can play a significant role in establishing a more secure and healthier digital space for everyone.

The findings contribute to the existing body of literature by highlighting the particular traits of psychopathy that contribute to online aggression. Also, this study focuses on non-clinical populations, specifically female students in Romania, further contributing to the scientific literature with data on a distinct group of individuals. Behavioral scientists can further investigate how psychopathy and mental well-being interact across different demographic groups and cultural contexts, informing culturally sensitive interventions aimed at reducing online aggression by targeting underlying factors.

CONCLUSION

The results of this analysis suggest that female students exhibiting lower levels of psychopathic tendencies may experience higher levels of mental well-being, consequently reducing the likelihood of engaging in online aggression. Conversely, female students who exhibit psychopathic traits may demonstrate lower levels of positive mental well-being, thereby increasing the likelihood of engaging in aggressive behavior in the online environment.

There are several reasons addressed in literature for the manifestation of online aggression realized by female individuals. Past victimization may lead to feelings of revenge or retaliation (Cava et al., 2020; Felmler & Faris, 2016) and the anonymity and perceived detachment provided by the online environment may make it an appealing venue for such behaviors (Zimmerman & Ybarra, 2016). Another perspective that could explain the engagement in online aggressive behaviors by females is the social comparison theory (Festinger, 1954). The explanations offered by this theory postulate that humans have a natural inclination to compare themselves to others and the internet can offer the chance to do so on a massive scale. When female students compare themselves with others while using social media platforms, they can feel endangered by perceiving the achievements or charm of other woman, which in turn can lead to sensations of jealousy, envy, and low self-esteem (Chae, 2018).

Overall, this study offers a compelling addition to the growing body of literature on psychopathy, mental well-being, and online aggression. It highlights the necessity of addressing mental health issues among students to prevent harmful online behaviors and provides a promising direction for future research in this field.

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