1 Department of Psychology, Ar.C., Islamic Azad University, Arak, Iran.
2 Department of Psychology, Ar.C., Islamic Azad University, Arak, Iran.
3 Department of Psychology, Ar.C., Islamic Azad University, Arak, Iran.

Corresponding author email address:
mm.jahangiri@iau.ac.ir

Attachment Styles and Online Self-Expression as Predictors of Cyberbullying and Cybervictimization Among Female High School Students

Ensieh. Khaledi[1], Mohammad Mehdi. Jahangiri[2*], Davood. Taghvaei[3]

ABSTRACT

Objective: To develop a structural model linking attachment styles to cyberbullying and cybervictimization among adolescent girls, with online self-expression tested as a mediator.

Methods and Materials: In a correlational design using structural equation modeling, 321 female students from secondary schools in Tehran's District 2 (2023–24) were selected via multistage cluster sampling. Instruments included the Cyberbullying–Victimization Experiences Questionnaire, the Revised Adult Attachment Scale (secure, anxious, avoidant), and the Online Self-Expression Scale. Analyses were performed in SPSS and AMOS. Model fit was evaluated using χ^2/df, RMSEA, GFI/AGFI, IFI, and CFI.

Findings: Secure, anxious, and avoidant attachment styles showed significant paths to online self-expression (secure negative; anxious and avoidant positive). Online self-expression was positively associated with cybervictimization (β= 0.192, p= 0.006) and cyberbullying (β= 0.293, p= 0.001) and significantly mediated the links between attachment styles and both outcomes. Direct paths from secure attachment to cybervictimization (β= −0.131, p= 0.023) and cyberbullying (β= −0.207, p= 0.001) were protective. Anxious attachment predicted higher cybervictimization (β = 0.214, p= 0.004) but showed a negative direct relation with cyberbullying (β= −0.198, p= 0.016), suggesting distinct pathways for perpetration versus exposure. Avoidant attachment exhibited no significant direct paths, indicating primarily indirect effects via online self-expression. The revised model demonstrated acceptable fit (χ^2/df= 2.96, RMSEA= 0.078, GFI= 0.952, AGFI= 0.891, IFI= 0.956, CFI= 0.955).

Conclusion: Attachment security appears protective against both roles in online aggression, whereas insecure patterns confer risk primarily through heightened online self-expression. Interventions should strengthen secure attachment and promote reflective, safer self-expression online.

Keywords: Attachment Styles, Self-Expression, Cyberbullying, Cybervictimization, Students.

Introduction

The development of information and communication technologies has enabled individuals to express themselves and engage in social activities across a wide range of online platforms such as Facebook, Twitter, and TikTok. However, this has also increased the risk of cyberbullying, which refers to the repeated harm, humiliation, or harassment of individuals or groups through online technologies in the form of name-calling, posting embarrassing images, sharing personal information or secrets without consent, spreading rumors, trickery, exclusion, and identity theft (Yang et al., 2023). Cyberbullying, as a type of traditional bullying that shares many of its characteristics, has become an increasing social concern due to three distinct features.

First, cyberbullying may have longer-lasting effects than traditional bullying because electronically transmitted information is permanent and public; if not promptly removed, it can spread widely (Palladino et al., 2017). Second, cyberbullying can be more pervasive and distressing than traditional bullying because modern technologies enable continuous communication 24 hours a day, making it harder for victims to find relief (John et al.). In fact, cybervictims are 2.35 times more likely to engage in self-harm, 2.15 times more likely to have suicidal thoughts, and 2.10 times more likely to attempt suicide compared to non-victims (John et al.). Third, the nature of computer-mediated communication on the Internet poses challenges for intervention. For example, due to anonymity and the deindividuation effect, people tend to be less disciplined and altruistic in the virtual world than in the real world, which makes identifying, reaching, and educating perpetrators or bystanders in cyberspace more difficult for cyberbullying interventions (Yang et al., 2023).

In this regard, part of the research has focused on identifying risk and protective factors for cyberbullying and cybervictimization. According to Bronfenbrenner, ecological systems theory (2000), it is essential to consider not only individual factors but also family and environmental factors when examining behaviors such as cyberbullying and cybervictimization (Yang et al., 2023). At present, research on cyberbullying has focused predominantly on adolescents in developed countries C. Zhu et al., (2021), while in low- and middle-income countries such as Iran—where there is a growing prevalence of cyberbullying among adolescents (Shariatpanahi et al., 2021)—it has received less scholarly attention. Consequently, there is an urgent need for studies to understand risk and protective factors in such contexts.

Given the above, this study focuses on the factors and mechanisms that may contribute to the emergence of cyberbullying and cybervictimization among Iranian students, particularly females. Specifically, the aim is to examine how attachment styles, online assertiveness, and virtual comparison relate to cyberbullying and cybervictimization among female students. Numerous studies have shown a link between anxious attachment and being a victim of bullying (Erdem et al., 2022; Yang et al., 2023). One possible explanation is that bullies tend to target individuals with high attachment anxiety and a fear of negative evaluation, as such individuals are more likely to be distressed by aggressive behavior—allowing bullies to achieve their goals (Navarro et al., 2012). Since women report higher levels of attachment anxiety compared to men (Weber et al., 2022), this may be associated with a greater likelihood of cybervictimization.

Furthermore, girls tend to use social media primarily as a means for social comparison with peers, self-expression, and receiving positive feedback (Yau & Reich, 2019; Sorokowski et al., 2016; Eagly, 2013). They also appear to spend more time on social media than boys (De Felice et al., 2022; Zsila et al., 2019), with girls accessing social networks mainly through smartphones, whereas boys spend more time on online gaming, news, and information (Booker et al., 2015; Chadwick & Vaccari, 2019). This pattern may place girls at a higher risk of cybervictimization (AlQaderi et al., 2023; Dredge et al., 2014; Wen et al., 2022).

Based on the points discussed, the present study aims to examine the concurrent relationships among attachment styles, online assertiveness, cyberbullying, and cybervictimization in female secondary school students using a structural modeling approach.

Methods and Materials

This research was fundamental in nature and employed a correlational design, with the relationships among variables examined using structural equation modeling (SEM). The statistical population consisted of

all female students enrolled in public and private secondary schools (second cycle) in District 2 of Tehran during the 2023–2024 academic year (N = 175,398).

According to Kline, (2012), the sample size for SEM can range from 10 to 20 observations per estimated parameter, with a minimum of 200 participants generally considered acceptable. Given the number of estimated parameters in the research model (11 parameters), the desirable sample size ranged between 110 and 220 participants. To increase sampling accuracy and account for potential participant attrition or incomplete data, the sample size was increased to 400. Participants were selected through multi-stage cluster sampling based on specific inclusion criteria. After data collection, 73 questionnaires were excluded due to incomplete responses, resulting in a final sample of 321 for analysis.

Inclusion criteria were: informed consent to participate, female students aged 15–20 years, no self-reported physical or psychological disorders, and no identifiable physical disabilities. Exclusion criteria were: unwillingness to participate, incomplete questionnaires, or corrupted data.

Instruments

a. Cyberbullying–Victimization Experiences Questionnaire (CVEQ): This 24-item instrument was developed and validated by Antoniadou et al., (2016) to assess experiences of cyberbullying and cybervictimization among adolescents. It comprises two factors: cybervictimization (items 1–12) and cyberbullying (items 13–24), each measured across direct and indirect dimensions. Direct behaviors include property damage or abuse (e.g., sending virus-infected files), verbal bullying (e.g., sending humiliating or hostile messages), and threats (e.g., sending threatening messages). Indirect behaviors include social exclusion, defamation, and impersonation. Responses are rated on a 5-point Likert scale from *never* (1) to *every day* (5), with higher scores indicating more frequent experiences. Antoniadou et al., (2016) reported good construct validity (CFI = 0.97, TLI = 0.97, RMSEA = 0.031) and internal consistency (α = 0.89 for cyberbullying, α = 0.80 for cybervictimization). In Iran, Nooripour et al., (2024) confirmed the psychometric properties of the Persian version in adolescents aged 14–18 years. In the present study, Cronbach's alpha was 0.90 for cybervictimization and 0.94 for cyberbullying.

b. Revised Adult Attachment Scale (RAAS): Originally developed by Collins & Read, (1990) and revised by Collins, (1996), this 18-item scale assesses three dimensions—closeness, dependence, and anxiety (6 items each)—or alternatively, two dimensions: anxiety and avoidance. Responses are rated on a 5-point Likert scale from *not at all characteristic of me* (1) to *very characteristic of me* (5), with reverse scoring applied to specific items. Collins, (1996) reported α coefficients of 0.77 (closeness), 0.78 (dependence), and 0.85 (anxiety). In Iran, Asgharizadeh et al. (2023) validated the two-factor model (CFI = 0.92, GFI = 0.93, AGFI = 0.90, RMSEA = 0.074) with acceptable reliability. In the present study, Cronbach's alpha was 0.73 for secure attachment, 0.81 for anxious attachment, and 0.75 for avoidant attachment.

c. Online Self-Expression Scale (OSES): Developed by Fullwood et al., (2016), this 21-item measure evaluates four dimensions: *ideal self* (items 1–9), *multiple selves* (items 10–14), *true self* (items 15–18), and *preference for online self-expression* (items 19–21). Items are rated on a 5-point Likert scale from *strongly disagree* (1) to *strongly agree* (5). Higher scores indicate greater self-expression in the respective domain. Fullwood et al., (2016) reported α = 0.83 for the total scale. In the present study, Cronbach's alpha was 0.81 (ideal self), 0.80 (multiple selves), 0.62 (true self), 0.55 (preference), and 0.87 (total scale). Confirmatory factor analysis indicated good model fit (CFI = 0.99, GFI = 0.96, IFI = 0.99, NFI = 0.93, RMSEA = 0.032).

Procedure

Following approval of the proposal by the Research Council of the Psychology Department at Islamic Azad University, Arak Branch, an ethics code was obtained from the university's Biomedical Research Ethics Committee. After securing an official introduction letter, coordination was made with the Education Department of District 2 in Tehran.

The study was conducted in three stages:

1. Mapping the location of all girls' secondary schools in District 2 (32 schools: 26 private, 5 public, 1 Shahed, 1 exemplary public).

2. Random selection of 13 private and 2 public schools from three neighborhoods (Sa'adat Abad, Sattarkhan, and Shahrak-e Gharb).

3. Recruitment of participants within selected schools. The researcher met with school principals,

explained the study's purpose and procedures, and subsequently presented the information to eligible students in grades 10–12. Students were assured of confidentiality and the voluntary nature of participation. Questionnaires were administered individually without time limits. Data collection continued until the desired sample size was achieved.

Data Analysis

Data analysis was conducted in two stages: descriptive statistics (mean, standard deviation, demographic frequencies) and inferential statistics (Pearson correlation, confirmatory factor analysis, and SEM). The mediating roles of online assertiveness and virtual comparison were tested using the bootstrap method in AMOS. Analyses were performed using SPSS v27 and AMOS v23, with a significance level set at $p < 0.05$.

Findings and Results

According to the study's findings, most participants were 17 years old. The mean age of the total sample was 16.71 years with a standard deviation of 1.003. The reported age range was between 15 and 20 years. In terms of grade level, the eleventh grade had the highest percentage (38.3%).

Table 1

Descriptive statistics of the main research variables

Variable	Component	Mean	SD	Min	Max
Attachment	Secure	19.86	5.774	7	30
	Anxious	19.025	6.442	6	30
	Avoidant	18.813	5.461	6	30
Online self-expression	Ideal self	9.146	3.943	4	20
	Multiple selves	26.271	8.496	9	45
	Consistent self	11.729	5.400	5	25
	Tendency toward online self-expression	7.639	3.293	3	15
	Total score	54.785	16.177	22	96
Virtual social comparison	Ability	11.866	5.112	5	25
	Belief	11.545	4.539	4	20
	Total score	23.411	8.671	9	45
Cyber victimization	–	26.583	12.182	12	57
Cyberbullying	–	22.028	10.776	12	53

The skewness and kurtosis values for all variables were within the acceptable range (-1 to +1), confirming univariate normality. No multicollinearity was detected, as tolerance values were not below 0.10 and variance inflation factor (VIF) values did not exceed 10.

Table 2

Significance of path coefficients between the latent variable and its observed indicators

From latent variable	To	Component	β (Std.)	b (Unstd.)	SE	CR	p
Online self-expression	←	Consistent self	0.431	1	–	–	0.001
Online self-expression	←	Ideal self	0.853	4.267	0.72	5.926	0.001
Online self-expression	←	Multiple selves	0.681	2.163	0.384	5.632	0.001
Online self-expression	←	Tendency toward online self-expression	0.649	1.258	0.225	5.588	0.001

Based on the results in Table 2, the path coefficients between the observed indicators and the latent variable "online self-expression" are statistically significant. Therefore, these components can be considered valid indicators of this latent construct.

Table 3

Pearson correlation coefficients between exogenous variables and mediating/dependent variables

Variables	1	2	3	4	5	6	7	8	9
1. Secure attachment	1								
2. Avoidant attachment	-0.544	1							
3. Anxious attachment	-0.541	0.698	1						
4. Ideal self	-0.309	0.207	0.236	1					
5. Multiple selves	-0.329	0.478	0.432	0.214	1				

6. Consistent self	-0.219	0.305	0.281	0.267	0.589	1		
7. Tendency toward online self-expression	-0.359	0.404	0.372	0.310	0.544	0.442	1	
8. Cyber victimization	-0.407	0.502	0.423	0.264	0.360	0.314	0.367	1
9. Cyberbullying	-0.298	0.185	0.213	0.214	0.276	0.329	0.270	0.520	1

All independent and mediating variables showed significant correlations with the main dependent variables (cyberbullying and cyber victimization) at the 0.01 level, except for the correlation between "ideal self" and the "belief" component ($r = 0.086$, $p > 0.05$). According to Cohen's classification (1988), most correlations were of moderate strength (0.10–0.29 = small, 0.30–0.49 = moderate, ≥0.50 = large).

Table 4

Significance of direct standardized and unstandardized coefficients between variables in the structural model

Predictor	Outcome	β (Std.)	b (Unstd.)	SE	CR	p
Secure attachment	Online self-expression	-0.155	-0.047	0.020	-2.316	0.021
Anxious attachment	Online self-expression	0.323	0.088	0.024	3.743	0.001
Avoidant attachment	Online self-expression	0.199	0.064	0.025	2.504	0.012

The results in Table 4 indicate that secure, anxious, and avoidant attachment styles have significant direct effects on online self-expression.

Table 5

Significance of direct standardized and unstandardized coefficients between variables in the structural model

Predictor	Outcome	β (Std.)	b (Unstd.)	SE	CR	p
Secure attachment	Cyber victimization	-0.131	-0.275	0.121	-2.272	0.023
Anxious attachment	Cyber victimization	0.214	0.402	0.139	2.888	0.004
Avoidant attachment	Cyber victimization	0.017	0.038	0.153	0.248	0.804
Secure attachment	Cyberbullying	-0.207	-0.382	0.118	-3.223	0.001
Anxious attachment	Cyberbullying	-0.198	-0.328	0.136	-2.406	0.016
Avoidant attachment	Cyberbullying	-0.013	-0.026	0.149	-0.174	0.862

The results in Table 5 show that the direct effect of avoidant attachment on both cyber victimization (β = 0.017) and cyberbullying (β = -0.013) was not significant. This lack of significance is due to the complete mediating role of virtual comparison and online self-expression. However, the direct effects of secure and anxious attachment on cyber victimization and cyberbullying were significant.

Table 6

Significance of direct coefficients between mediating and dependent variables

Mediator	Outcome	β (Std.)	b (Unstd.)	SE	CR	p
Online self-expression	Cyber victimization	0.192	1.326	0.485	2.734	0.006
Online self-expression	Cyberbullying	0.293	1.777	0.505	3.518	0.001

Online self-expression had a significant direct effect on both cyber victimization (β = 0.192) and cyberbullying (β = 0.293).

Table 7

Significance of standardized indirect effects in the model

Predictor	Mediator	Outcome	Indirect effect	95% Lower bound	95% Upper bound	Sig.
Secure attachment	Online self-expression	Cyber victimization	-0.063	-0.152	-0.017	0.010
Anxious attachment	Online self-expression	Cyber victimization	0.117	0.039	0.213	0.011
Avoidant attachment	Online self-expression	Cyber victimization	0.085	0.019	0.193	0.012
Secure attachment	Online self-expression	Cyberbullying	-0.084	-0.186	-0.034	0.006
Anxious attachment	Online self-expression	Cyberbullying	0.156	0.069	0.245	0.012
Avoidant attachment	Online self-expression	Cyberbullying	0.113	0.014	0.211	0.019

The results in Table 7 indicate that the indirect effects of secure, anxious, and avoidant attachment on both cyber victimization and cyberbullying through online self-expression are significant (p < 0.05).

Table 8

Comparison of direct effects in the mediation model and the direct effects model (with indirect paths set to zero)

Path	Beta in direct effects model	Beta in mediation model	Conclusion
Secure attachment → Cyber victimization	-0.14	-0.13	Partial mediation
Secure attachment → Cyberbullying	-0.21	-0.20	Partial mediation
Anxious attachment → Cyber victimization	0.261	0.21	Partial mediation
Anxious attachment → Cyberbullying	-0.21	-0.155	Partial mediation
Avoidant attachment → Cyber victimization	0.046	0.02	Only indirect effect
Avoidant attachment → Cyberbullying	0.021	-0.01	Only indirect effect

According to Table 8, the direct effects of secure and anxious attachment were reduced when mediators were included in the model, but they remained significant, indicating partial mediation. In contrast, avoidant attachment showed no significant direct effects in either model, meaning its influence on cyber victimization and cyberbullying was entirely indirect.

Table 9

Goodness-of-fit indices for the revised structural model

Fit indices	χ^2	df	χ^2/df	RMSEA	GFI	AGFI	IFI	CFI
Revised model	86.08	29	2.96	0.078	0.952	0.891	0.956	0.955
Acceptable range	–	–	< 3	< 0.08	> 0.90	> 0.80	> 0.90	> 0.90

After minor modifications (removing non-significant paths and adding error covariances), all fit indices fell within acceptable ranges. The χ^2/df ratio was 2.96, indicating an acceptable fit. RMSEA was 0.078, below the 0.08 threshold. GFI, AGFI, IFI, and CFI values were all above the minimum recommended cutoffs, suggesting an overall good model fit.

Discussion and Conclusion

The results showed that the direct effect of anxious and avoidant attachment styles on online assertiveness was positive and significant. Another finding indicated that the direct effect of secure attachment style on online assertiveness was negative and significant.

Consistent with these findings, Yang et al., (2023) found that individuals with high attachment anxiety tend to engage in excessive self-disclosure on social media. The results of the study by Y. Zhu et al., (2021) revealed that a reduction in avoidant attachment scores predicted an increased willingness to share information with others. Anxiously attached individuals were less likely to disclose threatening information but more likely to share neutral information. In Troup, (2017) research, individuals with high levels of anxious and avoidant attachment, compared to securely attached individuals, expressed themselves more paradoxically in virtual spaces. Specifically, their online personas were more self-revealing and contained more negative traits, whereas their offline personas were described as more self-concealing with fewer negative traits.

In line with these results, another study found a negative and significant relationship between attachment anxiety and assertiveness, while the direct path from secure attachment style to assertiveness was positive and significant Darban et al., (2020). Similarly, Moghadam, (2024) found in a study on university students that secure attachment was positively and significantly related to assertiveness.

To interpret these findings based on the existing literature, it can be argued that in attachment relationships, beyond structural differences (e.g., positive vs. negative), the organization of individuals' internal working models of self and others—which are shaped by attachment—varies considerably. Representations of self and others among insecurely attached individuals tend to be more fragmented, less coherent, and more contradictory (Main, 1996). This lack of integration and coherence stems from defensive and

self-regulatory processes that emerge when encountering emotionally arousing information.

For those high in attachment avoidance, internal mechanisms reduce access to negative emotions and memories. For those high in attachment anxiety, negative emotions and memories become overwhelming and generalized. In both cases, these strategies hinder the development of coherent and consistent narratives about early attachment relationships (Shaver & Mikulincer, 2002).

For insecurely attached individuals, emotions triggered in romantic relationships can evoke states of shame (Lopez et al., 1997). When aspects of the self or others evoke intolerable shame, these aspects are often split off and dissociated from the rest of the self, leading to efforts to hide them. Shame, splitting, and self-concealment are heavily implicated in insecure attachment: those high in attachment anxiety—driven by fear of abandonment—may hide information they fear will push others away, while those high in attachment avoidance may conceal personal information to protect themselves from vulnerability and exposure (Troup, 2017).

Since modern technology has expanded the quantity and variety of domains in which one can cultivate identity, insecurely attached individuals may find new opportunities to create safe havens for revealing and exploring parts of themselves that would otherwise remain hidden, preventing their growth and integration with the rest of the self. Several researchers have suggested that virtual space may help deactivate the attachment system and assist individuals in meeting their needs for belonging and self-preservation. Specifically, the distanced nature of interaction may allow avoidantly attached individuals to self-disclose without the threat of intrusion, while the increased sense of belonging often present in online communities may reduce the threat of abandonment for anxiously attached individuals, potentially fostering more positive self-perceptions (Yang et al., 2023).

This theory is supported by findings that insecurely attached individuals may find it easier to initiate online friendships Jenkins-Guarnieri et al., (2012) and that frequent social media use is associated with greater intimacy and support for those with anxious attachment (Nitzburg & Farber, 2013). Research also indicates that avoidantly attached individuals may gravitate toward self-expression through online platforms that embrace anonymity, such as blogging Troup, (2017). For them, blogging may provide frequent opportunities to confront identity development or reconfiguration challenges, with greater control over the parameters of this process: they can "step back" by delaying online interactions before resuming them, or even discontinue the process entirely if it feels overly vulnerable. Thus, the internet becomes an ideal environment for someone who simultaneously fears and craves intimacy (Troup, 2017).

Supporting this view, one study found that individuals high in both avoidance and anxiety were three times more likely than securely attached individuals to self-reveal online. They were also four times more likely to believe that their virtual audiences described them with more negative traits compared to their real-life friends and family (Troup, 2017). These findings suggest that people high in avoidance and anxiety use virtual space to display rawer, more shame-laden aspects of themselves (Palladino et al., 2017). Thus, it can be inferred that such individuals use online platforms to reveal traits hidden in the real world—two forms of self-expression that are not only distinct but also contradictory, potentially indicating fragmentation or incompatible compartmentalization (Troup, 2017).

For securely attached individuals, research shows a link between attachment security and lower levels of splitting and self-concealment (Lopez et al., 1997; Lopez et al., 2001). Unlike insecurely attached individuals who share shame-laden or rejection-sensitive aspects of the self, securely attached individuals may use online spaces to freely explore and enhance less prominent aspects of the self in the real world or to refine their identity. Studies suggest that securely attached individuals are twice as likely to describe themselves based on their roles in others' lives in the real world, but not online. For those whose self-concept is rooted in caregiving and friendship, virtual space may offer a unique arena for self-exploration without the constraints of considering others (Troup, 2017). Overall, findings from this hypothesis in the present study support the idea that attachment style is a key factor in how people use offline versus digital environments for self-expression. In particular, for insecurely attached individuals, virtual space may offer a safer platform than offline environments for self-exploration and self-expression.

Acknowledgments

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Ethical considerations in this study were that participation was entirely optional.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

Authors' Contributions

All authors equally contribute to this study.

References

AlQaderi, N., Banibella Abdelmagied Elamin, A., Yasser Abdelraouf Abdelmonem, K., Teir, H. J., & Andrade, G. (2023). Phone addiction, cyberbullying, and mental health amongst young adults in the United Arab Emirates: a cross-sectional study. *BMC psychology*, *11*(1), 313. https://doi.org/10.1186/s40359-023-01320-1

Antoniadou, N., Kokkinos, C. M., & Markos, A. (2016). Development, construct validation and measurement invariance of the Greek cyber-bullying/victimization experiences questionnaire (CBVEQ-G). *Computers in Human Behavior*, *65*, 380-390. https://doi.org/10.1016/j.chb.2016.08.032

Booker, C. L., Skew, A. J., Kelly, Y. J., & Sacker, A. (2015). Media use, sports participation, and well-being in adolescence: cross-sectional findings from the UK household longitudinal study. *American journal of public health*, *105*(1), 173-179. https://doi.org/10.2105/AJPH.2013.301783

Bronfenbrenner, U. (2000). *Ecological systems theory*. American Psychological Association. https://doi.org/10.1037/10518-046

Chadwick, A., & Vaccari, C. (2019). News sharing on UK social media: Misinformation, disinformation, and correction. https://repository.lboro.ac.uk/articles/report/News_sharing_on_UK_social_media_misinformation_disinformation_and_correction/9471269?file=17095679

Collins, N. L. (1996). Working models of attachment: implications for explanation, emotion, and behavior. *Journal of personality and social psychology*, *71*(4), 810. https://doi.org/10.1037/0022-3514.71.4.810

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of personality and social psychology*, *58*(4), 644. https://doi.org/10.1037/0022-3514.58.4.644

Darban, F., Safarzai, E., Koohsari, E., & Kordi, M. (2020). Does attachment style predict quality of life in youth? A cross-sectional study in Iran. *Health psychology research*, *8*(2), 8796. https://doi.org/10.4081/hpr.2020.8796

De Felice, G., Burrai, J., Mari, E., Paloni, F., Lausi, G., Giannini, A. M., & Quaglieri, A. (2022). How do adolescents use social networks and what are their potential dangers? A qualitative study of gender differences. *International journal of environmental research and public health*, *19*(9), 5691. https://doi.org/10.3390/ijerph19095691

Dredge, R., Gleeson, J., & De la Piedad Garcia, X. (2014). Presentation on Facebook and risk of cyberbullying victimisation. *Computers in Human Behavior*, *40*, 16-22. https://doi.org/10.1016/j.chb.2014.07.035

Erdem, A., Tunç, E., & Erdem, Ş. (2022). Investigation of the relationship between cyber dating violence and attachment styles in university students. *Turkish Psychological Counseling and Guidance Journal*, *12*(64), 171-188. https://doi.org/10.17066/tpdrd.1096231

Fullwood, C., James, B. M., & Chen-Wilson, C.-H. (2016). Self-concept clarity and online self-presentation in adolescents. *Cyberpsychology, Behavior, and Social Networking*, *19*(12), 716-720. https://doi.org/10.1089/cyber.2015.0623

Jenkins-Guarnieri, M. A., Wright, S. L., & Hudiburgh, L. M. (2012). The relationships among attachment style, personality traits, interpersonal competency, and Facebook use. *Journal of Applied Developmental Psychology*, *33*(6), 294-301. https://doi.org/10.1016/j.appdev.2012.08.001

John, A., Glendenning, A., Marchant, A., Montgomery, P., Stewart, A., Wood, S., & Lloyd, K. és Hawton, K.(2018): Self-Harm, Suicidal Behaviours, and Cyberbullying in Children and Young People: Systematic Review. *Journal of Medical*, *20*(4), 129. https://doi.org/10.2196/jmir.9044

Kline, R. B. (2012). Assumptions in structural equation modeling. *Handbook of structural equation modeling*, *111*, 125. https://books.google.com/books?id=P16bEAAAQBAJ&lpg=PA128&ots=jzfiFj7C6I&dq=Kline%2C%20R.%20B.%20(2012).%20Assumptions%20in%20structural%20equation%20modeling.%20Handbook%20of%20structural%20equation%20modeling%2C%20111%2C%20125.&lr=lang_en&pg=PA128#v=onepage&q&f=false

Lopez, F. G., Gover, M. R., Leskela, J., Sauer, E. M., Schirmer, L., & Wyssmann, J. (1997). Attachment styles, shame, guilt, and collaborative problem-solving orientations. *Personal relationships*, *4*(2), 187-199. https://doi.org/10.1111/j.1475-6811.1997.tb00138.x

Lopez, F. G., Mauricio, A. M., Gormley, B., Simko, T., & Berger, E. (2001). Adult attachment orientations and college student distress: The mediating role of problem coping styles. *Journal of counseling & development*, *79*(4), 459-464. https://doi.org/10.1002/j.1556-6676.2001.tb01993.x

Main, M. (1996). Introduction to the special section on attachment and psychopathology: 2. Overview of the field of attachment.

Journal of consulting and clinical psychology, *64*(2), 237. https://doi.org/10.1037/0022-006X.64.2.237

Moghadam, H. I. (2024). Investigating the Relationship between Parenting Styles and Suicide Ideation with the Mediation of Avoidant Insecure Attachment Style. *International Journal of Body, Mind & Culture (2345-5802)*, *11*(2).https://10.22122/ijbmc.v11i2.527

Navarro, R., Yubero, S., Larrañaga, E., & Martínez, V. (2012). Children's cyberbullying victimization: Associations with social anxiety and social competence in a Spanish sample. *Child indicators research*, *5*(2), 281-295. https://doi.org/10.1007/s12187-011-9132-4

Nitzburg, G. C., & Farber, B. A. (2013). Putting up emotional (Facebook) walls? Attachment status and emerging adults' experiences of social networking sites. *Journal of clinical psychology*, *69*(11), 1183-1190. https://doi.org/10.1002/jclp.22045

Nooripour, R., Hosseinian, S., Ghanbari, N., Wisniewski, P., & Sikström, S. (2024). Validity and reliability of persian version of cyber-bullying/victimization experience questionnaire (CBVEQ) among Iranian adolescents. *International Journal of Bullying Prevention*, 1-12. https://doi.org/10.1007/s42380-024-00211-2

Palladino, B. E., Menesini, E., Nocentini, A., Luik, P., Naruskov, K., Ucanok, Z., Dogan, A., Schultze-Krumbholz, A., Hess, M., & Scheithauer, H. (2017). Perceived severity of cyberbullying: Differences and similarities across four countries. *Frontiers in psychology*, *8*, 1524. https://doi.org/10.3389/fpsyg.2017.01524

Shariatpanahi, G., Tahouri, K., Asadabadi, M., Moienafshar, A., Nazari, M., & Sayarifard, A. (2021). Cyberbullying and its contributing factors among Iranian adolescents. *International Journal of High Risk Behaviors and Addiction*, *10*(3), e112178. https://doi.org/10.5812/ijhrba.112178

Shaver, P. R., & Mikulincer, M. (2002). Attachment-related psychodynamics. *Attachment & human development*, *4*(2), 133-161. https://doi.org/10.1080/14616730210154171

Troup, E. G. (2017). Growing role of platforms in cybersecurity. *The Cyber Defense Review*, *2*(1), 61-70. http://www.jstor.org/stable/26267401

Weber, R., Eggenberger, L., Stosch, C., & Walther, A. (2022). Gender differences in attachment anxiety and avoidance and their association with psychotherapy use—examining students from a German university. *Behavioral Sciences*, *12*(7), 204. https://doi.org/10.3390/bs12070204

Wen, H., Kong, X., & Feng, Y. (2022). The relationship between cyber upward social comparison and cyberbullying behaviors: A moderated mediating model. *Frontiers in psychology*, *13*, 1017775. https://doi.org/10.3389/fpsyg.2022.1017775

Yang, X., Huang, Y., & Li, B. (2023). Attachment anxiety and cyberbullying victimization in college students: the mediating role of social media self-disclosure and the moderating role of gender. *Frontiers in psychology*, *14*, 1274517. https://doi.org/10.3389/fpsyg.2023.1274517

Zhu, C., Huang, S., Evans, R., & Zhang, W. (2021). Cyberbullying among adolescents and children: A comprehensive review of the global situation, risk factors, and preventive measures. *Frontiers in public health*, *9*, 634909. https://doi.org/10.3389/fpubh.2021.634909

Zhu, Y., Li, W., O'Brien, J. E., & Liu, T. (2021). Parent–child attachment moderates the associations between cyberbullying victimization and adolescents' health/mental health problems: An exploration of cyberbullying victimization among Chinese adolescents. *Journal of interpersonal violence*, *36*(17-18), NP9272-NP9298. https://doi.org/10.1177/0886260519854559

Zsila, Á., Urbán, R., Griffiths, M. D., & Demetrovics, Z. (2019). Gender differences in the association between cyberbullying victimization and perpetration: The role of anger rumination and traditional bullying experiences. *International Journal of Mental Health and Addiction*, *17*(5), 1252-1267. https://doi.org/10.1007/s11469-018-9893-9