



Between Kisses and Bytes: Cyber Dating Abuse and Internet Use in Emerging Adulthood

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Abstract. Emerging adults use the internet to connect with intimate partners, which can promote closeness but also increase vulnerability to abusive behavior, such as cyber dating abuse (CDA). In this study, we explored the use of the internet and information and communication technologies (ICT) and determined the prevalence of CDA among 105 emerging adults, with an average age of 23.2 years ($SD = 3.65$). Through an online cross-sectional study, our results indicate that emerging adults spend an average of 6.67 h a day online ($SD = 3.34$), with 37.6% communicating with their partner for more than 5 h daily via ICT. A high prevalence of CDA was observed: 62.9% victimization and 74.3% perpetration, with an emphasis on controlling behaviors. This study explores the relationship between problematic internet use (PIU) and CDA and highlights the normalization of CDA behaviours.

Keywords: Cyber dating abuse · Problematic internet use · Emerging adulthood

1 Introduction

Emerging adulthood - the period between the ages of 18 and 29 [2] - is characterized by a great deal of use of information and communication technologies (ICT) to communicate with their partners [3]. Nowadays, between 80% to 92.5% of emerging adults report frequent daily use of the internet [1]. Although ICTs enrich communication, their uncontrolled use can damage relationships and open the door to abusive behavior, such as cyber dating abuse (CDA) [5]. CDA is defined as a form of psychological violence exercised through the inappropriate

use of ICT [3], which includes behavioral expressions such as online monitoring, obtaining passwords without permission, among others [4], and can cause serious psychological and social problems [11]. CDA seems to be increasing at the same rate as the massive use of ICT [3]. Previous studies report CDA victimization rates of up to 74.2% and perpetration rates around 53.3% [12]. Additionally, problematic internet use (PIU) - defined as excessive and compulsive internet use of between 40 to 80 h per week - is associated with relational and mental health issues [13]. Here, we defined three Research Questions (RQ): RQ1. Which ICT platforms are used by emerging adults to communicate with partners?; RQ2. What is the nature of PIU among this population?; RQ3. What is the prevalence of CDA in emerging adult relationships?

2 Methods

2.1 Participants and Procedures

The sample comprised of 105 participants aged between 18 and 29 (average age 23.2 [SD = 3.65]), of whom 81% (n = 85) were female and 19% (n = 20) male. Furthermore, 76.2% (n = 80) of respondents said they were in a dating relationship, with an average relationship time of 39.95 months (SD = 37.94). The remaining 23.8% (n = 25) were not currently in a relationship, but had been in the past, with an average duration of 24.68 months (SD = 24.42). Informed consent was obtained from all participants. Three inclusion criteria were defined: are or have been in a dating relationship, be between 18 and 29 years old, and make use of ICT. The sample was recruited online using a convenience sampling approach, with the link to the questionnaire (Google Forms) posted on various social networks via the snowball technique. All procedures performed in this study followed the ethical principles of psychologists and the code of conduct standards of the American Psychological Association, as well as the 1964 Helsinki declaration and its later amendments. The study was approved by the Scientific Committee of the Psychology Department of the University of Madeira.

2.2 Data Collection and Analysis

We collected sociodemographic data on gender, age, and relationship status using a questionnaire. Additionally, participants responded to items regarding their use of ICT and the internet, including: a) the three main ICT tools they use to communicate with their partner; b) the number of minutes/hours per day spent on internet-connected devices; and c) within that time, how long they spend communicating with their partner. Participants also completed two validated scales adapted for the Portuguese population with appropriate psychometric properties: i) the Generalized Problematic Internet Use Scale (EUGPI-2 [8]), a 15-item self-report measure that assesses cognitions and negative consequences related to PIU, and ii) the Cyber Dating Abuse Questionnaire (CDAQ [4]), a 40-item self-report measure that assesses cyber abuse in dating relationships. Data analysis was conducted using IBM-SPSS version 25. Descriptive statistics

were used to describe the sample, ICT use, internet usage, and CDA. Finally, for the prevalence of CDA, the relative and absolute frequencies were calculated.

3 Results

The results were structured around the research questions, with the main findings presented below.

RQ1. Our results revealed that text messages seem to be the ICT most used by participants to communicate with their partner (62.9%). **RQ2.** We wanted to find out how much time the participants in this sample spent on the internet and how much time they spent talking to their partners. We found that the participants spent an average of 6.67 h using devices with internet access and that more than half, 57.8% spent over 5 h on the internet. The average time spent talking to their partner was 3.43 h. Furthermore, the data shows that the items of the EUGPI-2 with the highest mean are: item 2 “I used the internet to talk to other people when i felt lonely” ($M = 4.55$, $SD = 2.02$), and item 7 “I used the internet to feel better when I was feeling down” ($M = 4.46$, $SD = 1.89$). The items with the lowest mean scores were item 10 “I missed appointments or social activities because of my internet use” ($M = 1.56$, $SD = 0.88$), and item 1 “I prefer online social interaction to face-to-face communication” ($M = 1.74$, $SD = 1.35$). Moreover, the data also show that the Humor regulation subscales ($M = 4.45$, $SD = 1.73$) and Poor self-regulation subscales ($M = 2.88$, $SD = 1.18$) are those with the highest average response values. The total scale has an average of 2.81 ($SD = .93$). **RQ3.** We found that 62.9% experienced CDA, and 74.3% perpetrated it. For more details about our findings, see Table 1.

Table 1. Main results.

Research questions	Main results
RQ1. ICT use	Text messages (62.9%), WhatsApp (56.2%) Facebook Messenger (51.4%)
RQ2. Internet use	Daily use ($M = 6.67h$, $SD = 3.34$) Use more than 5h/day: 57.8% ($n = 59$) Conversation with partner ($M = 3.43h$, $SD = 3.2$)
RQ3. CDA prevalences	Victimization: 62.9%, Perpetration: 74.3% Most common type of abuse via ICT: Control (61% as victims and 71.4% as perpetrators)

4 Discussion

Our results indicate that emerging adults mainly use text messages and social media, following the trend of previous studies [10]. In addition, more than half

of the participants reported spending more than five hours online, higher than the figures identified in other studies [8]. This ease of access to the internet can generate emotional dependence and create the expectation of a constant and immediate online presence from the partner, which can lead to CDA behaviors [6]. The items with the highest average response values in the descriptive analysis of the EUGPI-2 items reinforce the recognition of the Internet as a medium that emerging adults prefer for maintaining contacts and as a source of support. The items with a lower average response value suggest that they prefer face-to-face interactions. This trend is also reflected in the Mood Regulation subscale, where emerging adults seem to use ICT to regulate their emotions, which can have negative impacts. This duality suggests that, although face-to-face interactions continue to be valued by emerging adults, the accessibility of ICT and immediacy can contribute to the emergence of emotional dependencies, associated with social isolation and loneliness [9]. As for the prevalence of CDA, we found high values for victimization (62.9%) and perpetration (74.3%), higher than those obtained in previous studies [4,7]. Victimization and perpetration by control were also found to have higher values, 61% and 71.4% respectively, when compared to direct aggression, 30.5% for both dimensions. These data reinforce the trends observed in other studies [3,7]. These worrying figures may be related to the normalization of CDA behaviours by control, perceived by emerging adults as a sign of love and affection [1]. Our findings highlight the urgent need to reflect on how the design of ICT platforms (e.g., "geolocation", "read receipts") may be sustaining or mitigating CDA behaviors.

4.1 Limitations and Future Work

This section outlines the main limitations of our study and suggests future research opportunities. As a cross-sectional study, it cannot establish causality between variables. The gender imbalance in our sample limits generalizability, and social desirability bias may have affected responses.

Future research should use experimental designs to explore how PIU leads to CDA and how ICT design can reduce it. Researching other factors like personality and social-emotional skills, as well as using qualitative methods, would deepen understanding. Collaboration with designers and programmers is also key to developing tools that identify and prevent CDA.

4.2 Conclusion

Emerging adults use ICT like messaging and social networks to connect. While ICT supports communication, it can also enable CDA, which has increased in both perpetration and victimization over time. Our findings stress the need to raise awareness about CDA's impact on well-being and mental health. We recommend promoting healthy boundaries and emotional autonomy in relationships when designing ICT platforms, such as adding warnings or detecting abusive language, to reduce CDA risks. Effective solutions require collaboration between psychology and human-computer interaction (HCI) experts.

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References

1. Ameral, V., Palm Reed, K.M., Hines, D.A.: An analysis of help-seeking patterns among college student victims of sexual assault, dating violence, and stalking. *J. Interpers. Violence* **35**(23–24), 5311–5335 (2020). <https://doi.org/10.1177/0886260517721169>
2. Arnett, J.J., Žukauskienė, R., Sugimura, K.: The new life stage of emerging adulthood at ages 18–29 years: implications for mental health. *Lancet Psychiat.* **1**(7), 569–576 (2014). [https://doi.org/10.1016/S2215-0366\(14\)00080-7](https://doi.org/10.1016/S2215-0366(14)00080-7)
3. Borrajo, E., Gámez-Guadix, M., Calvete, E.: Cyber dating abuse: prevalence, context, and relationship with offline dating aggression. *Psychol. Rep.* **116**(2), 565–585 (2015). <https://doi.org/10.2466/21.16.PR0.116k22w4>
4. Caridade, S.M., Braga, T.: Versão portuguesa do Cyber Dating Abuse Questionnaire (CDAQ) - Questionário sobre Ciberabuso no Namoro (CibAN): Adaptação e propriedades psicométricas. [The Portuguese version of the cyber dating abuse questionnaire (CDAQ): adapting and psychometric properties.]. *Análise Psicológica* **37**(1), 93–105 (2019). <https://doi.org/10.14417/ap.1543>
5. Deans, H., Bhogal, M.S.: Perpetrating cyber dating abuse: a brief report on the role of aggression, romantic jealousy and gender. *Curr. Psychol.* **38**(5), 1077–1082 (2017). <https://doi.org/10.1007/s12144-017-9715-4>
6. Leung, L.: Effects of ICT connectedness, permeability, flexibility, and negative spillovers on burnout and job and family satisfaction. *Hum. Technol. Interdisc. J. Hum. ICT Environ.* **7**(3), 250–267 (2011). <https://doi.org/10.17011/ht/urn.2011112211714>
7. Martínez-Soto, A., Ibabe, I.: Cyber dating abuse: conceptualization and meta-analysis of prevalence rates. *Anuario de Psicología Jurídica* **34**(1), 133–144 (2024). <https://doi.org/10.5093/apj2023a11>
8. Pontes, H.M., Caplan, S.E., Griffiths, M.D.: Psychometric validation of the generalized problematic internet use scale 2 in a Portuguese sample. *Comput. Hum. Behav.* **63**, 823–833 (2016). <https://doi.org/10.1016/j.chb.2016.06.015>
9. Prievara, D.K., Piko, B.F., Luszczynska, A.: Problematic internet use, social needs, and social support among youth. *Int. J. Ment. Heal. Addict.* **17**(4), 1008–1019 (2018). <https://doi.org/10.1007/s11469-018-9973-x>
10. Romo-Tobón, R.J., Vázquez-Sánchez, V., Rojas-Solís, J.L., Alvidrez, S.: Cyberbullying y Ciberviolencia de pareja en alumnado de una universidad privada mexicana. *Propósitos y Representaciones* **8**(2), e303–e303 (2020). <https://doi.org/10.20511/pyr2020.v8n2.303>, number: 2

11. Smith, K., Cénat, J.M., Lapierre, A., Dion, J., Hébert, M., Côté, K.: Cyber dating violence: prevalence and correlates among high school students from small urban areas in Quebec. *J. Affect. Disord.* **234**, 220–223 (2018). <https://doi.org/10.1016/j.jad.2018.02.043>
12. Soriano-Ayala, E., Cala, V.C., Orpinas, P.: Prevalence and predictors of perpetration of cyberviolence against a dating partner: a cross-cultural study with Moroccan and Spanish youth. *J. Interpers. Violence* **38**(3–4), 4366–4389 (2023). <https://doi.org/10.1177/08862605221115111>
13. Young, K.S.: Internet addiction: the emergence of a new clinical disorder. *CyberPsychol. Behav.* **1**(3), 237–244 (1998). <https://doi.org/10.1089/cpb.1998.1.237>

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