

Attachment Style and Dark Triad Personality as Predictors of Ghosting Behavior in Online Dating Contexts

Sri Wahyuni Sukri, IGAA Noviekayati, Dyan Evita Santi

Master of Professional Psychology, University 17 August 1945 Surabaya, Indonesia

ABSTRACT

Millennials and Generation Z are the age groups that dominate the use of digital dating applications. In these generations, building interpersonal relationships is relatively easy, including interactions through digital platforms. The phenomenon of ghosting—defined as the sudden termination of communication without explanation—frequently emerges in this context. This study aims to explore the relationship between attachment style and dark triad personality traits on ghosting behavior among dating application users. The research employed a quantitative approach with a path analysis method. The sample consisted of 254 emerging adults who use dating applications, selected through purposive sampling techniques. The results showed that attachment style had a significant negative effect on ghosting behavior ($\beta = -0.408$; $p < 0.05$), indicating that individuals with secure attachment are less likely to engage in ghosting. Conversely, dark triad personality traits had a significant positive effect on ghosting behavior ($\beta = 0.548$; $p < 0.05$), where the dimensions of Machiavellianism, narcissism, and psychopathy increased the likelihood of ghosting. Regression analysis revealed a significant simultaneous contribution ($F = 471.850$; $p < 0.05$), with the independent variables explaining 79% of the variance in ghosting behavior. These findings indicate that attachment style and dark triad personality traits play an important role in shaping ghosting behavior in the digital era. This study can serve as a basis for developing psychological interventions to improve the quality of interpersonal relationships in the context of dating applications.

Keywords: Attachment Style, Dark Triad Personality, Ghosting Behavior, Dating Applications, Emerging Adulthood

Corresponding author

Name: Sri Wahyuni Sukri

Email: wsri8902@gmail.com

INTRODUCTION

The advancement of digital technology has transformed the way people interact and build interpersonal relationships. One significant manifestation of this transformation is the emergence of online dating applications that facilitate quick and practical connections between individuals. Data from the Indonesian Internet Service Providers Association (APJII, 2023) reported that internet users in Indonesia reached 215.63 million, or about 77% of the total population. This surge has also driven an increase in dating application users, particularly among millennials and Generation Z, who are known for their adaptability to

technology (Jung et al., 2019; Kompas, 2024). These applications provide instant access to relationships, whether for short-term or long-term purposes.

However, a phenomenon that has grown alongside the popularity of dating apps is ghosting. This term refers to the act of ending communication or a relationship without providing any explanation to the other party (LeFebvre, 2017; Navarro et al., 2020). Ghosting has become an increasingly common pattern of interaction, not only in romantic contexts but also in the workplace, friendships, and even digital business transactions (Levine, 2021; Indeed, 2024). This phenomenon highlights a shift in modern communication values, where emotional involvement is increasingly avoided through the act of suddenly disappearing.

The impact of ghosting cannot be underestimated. Various studies have revealed that victims of ghosting often experience emotional distress, feelings of rejection, and even psychological symptoms such as anxiety and depression (Wittek et al., 2019; Eisenberger & Lieberman, 2004). Nevertheless, the motives behind ghosting vary. LeFebvre et al. (2019) identified situational factors, self-protection, and self-conceptual reasons as the main causes for engaging in ghosting. Individuals may resort to ghosting to avoid conflict, protect themselves from uncomfortable situations, or due to a low self-view regarding their ability to maintain relationships.

From a personality psychology perspective, attachment style plays an important role in determining one's tendency to engage in ghosting. Bowlby (1991) explained that attachment styles (secure, anxious, avoidant), formed since childhood, can influence relationship dynamics in adulthood. Individuals with secure attachment tend to feel comfortable with emotional closeness and are more capable of resolving conflicts in healthy ways. Conversely, individuals with insecure attachment often avoid deep emotional involvement or feel anxious about rejection, making them more vulnerable to ending relationships through ghosting (Miller & Schramm, 2019; Davis et al., 2018).

In addition to attachment style, personality traits known as the dark triad—Machiavellianism, narcissism, and psychopathy—are also linked to ghosting behavior. Individuals with Machiavellian traits tend to be manipulative and strategic in relationships, narcissists are more focused on their own needs, while psychopaths lack empathy and tend to be impulsive. Previous studies (Jonason & Kuhlman, 2008; Paulhus & Williams, 2002) have shown that these three dimensions increase the likelihood of avoiding emotional responsibility and choosing instant strategies such as ghosting to end relationships.

Although numerous international studies have discussed the relationship between attachment style, dark triad personality traits, and ghosting behavior, empirical research in Indonesia remains very limited. Yet, according to recent data, the phenomenon of ghosting is increasingly reported among Indonesian youth (Azura & Ardi, 2023). The scarcity of local research creates a knowledge gap regarding the psychological factors contributing to ghosting within the Indonesian cultural context.

Based on the above discussion, this study aims to analyze the influence of attachment style and dark triad personality traits on ghosting behavior among dating application users in Indonesia. The findings are expected to contribute theoretically by

expanding the understanding of the psychological dynamics underlying ghosting, as well as provide practical implications in the form of psychological intervention strategies to enhance the quality of social interactions and interpersonal relationships in the digital era.

METHOD

This study employed a quantitative approach with path analysis as the primary method. The choice of this approach was based on the research objective, which sought to analyze the influence of attachment style and dark triad personality traits on ghosting behavior among dating application users, both partially and simultaneously. Thus, the research design was explanatory in nature, aiming to explain the causal relationships between the studied variables.

The population of this study consisted of millennials and Generation Z who had used or were currently using dating applications. This population was selected because these age groups represent the largest proportion of digital dating application users in Indonesia. A purposive sampling technique was applied, whereby respondents were selected based on specific criteria relevant to the research objectives. The criteria included: (1) respondents belonging to either the millennial or Generation Z age groups, (2) having used or currently using a dating application, (3) having experience engaging in ghosting behavior, and (4) willingness to participate in the study. Based on these criteria, 254 respondents were recruited. Of this total, 148 respondents were female (58.3%) and 106 were male (41.7%). In terms of age, the majority (226 respondents, or 89%) were between 18–23 years old, while the remaining 28 respondents (11%) were between 24–39 years old.

The research instrument used was a questionnaire with a four-point Likert scale, ranging from 1 (strongly disagree) to 4 (strongly agree). The instrument measured three main variables: ghosting behavior, attachment style, and dark triad personality traits. Ghosting behavior was assessed using 23 items describing respondents' tendencies to abruptly end communication without explanation. Attachment style was measured through 37 items encompassing three dimensions: secure attachment, anxious attachment, and avoidant attachment. Meanwhile, dark triad personality traits were measured with 37 items covering the dimensions of Machiavellianism, narcissism, and psychopathy.

Data collected from the questionnaires were analyzed in several stages. First, descriptive analysis was conducted to provide a general overview of respondents' answers for each research variable. Second, simple linear regression analysis was performed to examine the partial effect of each independent variable on the dependent variable. Third, multiple linear regression analysis was employed to assess the simultaneous effect of attachment style and dark triad personality traits on ghosting behavior. Fourth, path analysis was used to examine the direct and indirect relationships among the research variables.

Hypothesis testing was carried out using t-tests and F-tests. The t-test was employed to determine the partial effect of each independent variable on the dependent variable, while the F-test was used to examine the simultaneous effect of both independent variables. In addition, the coefficient of determination (R^2) was calculated to identify the

extent to which attachment style and dark triad personality traits explained the variance in ghosting behavior. All data analyses were performed using SPSS 26 for Windows to ensure accurate and reliable results.

RESEARCH RESULT

Descriptive analysis showed that the variable of ghosting behavior had a mean score of 2.93. This value falls within the high category ($2.51 < CI \leq 3.25$), indicating that respondents in this study demonstrated a relatively strong tendency toward ghosting behavior. The variable of attachment style obtained a mean score of 2.26, which falls into the low category ($1.76 < CI \leq 2.50$). This suggests that most respondents tended to have less secure attachment patterns in their interpersonal relationships. Meanwhile, the dark triad personality variable obtained a mean score of 2.87, classified as high, indicating that characteristics such as Machiavellianism, narcissism, and psychopathy were relatively prominent among the respondents.

Simple linear regression analysis for attachment style revealed that secure attachment had a significant negative effect on ghosting behavior ($t = -2.663$; $p = 0.008$). This means that the higher an individual's secure attachment, the lower their tendency to engage in ghosting. Similarly, anxious attachment also showed a significant negative effect ($t = -4.705$; $p = 0.000$), suggesting that individuals with anxious attachment were more likely to maintain relationships and therefore less likely to ghost. Conversely, avoidant attachment did not show a significant effect on ghosting behavior ($t = -1.650$; $p = 0.100$), indicating that emotional distancing did not necessarily translate into ghosting.

Regression analysis for dark triad personality traits showed a different pattern. Machiavellianism had a significant positive effect on ghosting behavior ($t = 2.573$; $p = 0.011$), meaning that individuals with stronger manipulative tendencies were more likely to ghost. Narcissism also showed a significant positive effect ($t = 2.846$; $p = 0.005$), indicating that highly narcissistic individuals were more inclined to terminate relationships without explanation due to self-centeredness. Psychopathy demonstrated the strongest positive effect ($t = 4.501$; $p = 0.000$), suggesting that individuals with higher antisocial and low-empathy traits were more likely to ghost.

Multiple regression analysis confirmed that both attachment style and dark triad personality traits simultaneously had a significant effect on ghosting behavior. The resulting regression equation was:

$$Y = 59.875 - 0.368X_1 + 0.361X_2$$

The constant value of 59.875 indicates the baseline score of ghosting behavior when independent variables equal zero. The regression coefficient for attachment style (-0.368) means that each one-unit increase in attachment style reduces ghosting behavior by 0.368 units. Conversely, the coefficient for dark triad personality traits (0.361) indicates that each one-unit increase in this variable increases ghosting behavior by 0.361 units.

Path analysis reinforced these findings. Attachment style had a negative effect on ghosting behavior with a path coefficient of -0.408, while dark triad personality traits had a

positive effect with a coefficient of 0.548. This means that stronger secure attachment reduces ghosting, whereas higher dark triad traits increase ghosting tendencies.

At the dimensional level, secure attachment (-0.246) and anxious attachment (-0.455) both reduced ghosting behavior, while avoidant attachment (-0.135) was not significant. On the other hand, Machiavellianism (0.209), narcissism (0.272), and psychopathy (0.392) all increased the tendency to ghost.

The t-test results showed that both attachment style ($t = -9.748$; $p = 0.000$) and dark triad personality traits ($t = 13.096$; $p = 0.000$) had significant effects on ghosting behavior. The F-test results further supported these findings, with an F value of 471.850 ($p = 0.000$), which was much greater than the critical F value. This indicates that both independent variables had a significant simultaneous effect on ghosting behavior.

The coefficient of determination (R^2) was 0.790, suggesting that 79% of the variance in ghosting behavior could be explained by attachment style and dark triad personality traits, while the remaining 21% was influenced by other variables outside this study. Effective contribution analysis showed that attachment style accounted for 32.8% of the variance, while dark triad personality traits contributed a larger proportion, at 46.2%.

DISCUSSION

The results of this study revealed that attachment style had a negative effect on ghosting behavior among dating application users. This finding aligns with Bowlby's (1991) theory, which emphasizes that secure attachment fosters individuals who are capable of maintaining healthy and stable interpersonal relationships. Securely attached individuals tend to possess conflict-management skills, feel comfortable with emotional closeness, and take greater responsibility in their relationships. As a result, they are less likely to engage in ghosting. This finding is consistent with Bowles et al. (2023), who found that individuals with secure attachment are more inclined to communicate openly in both online and offline relationships.

Interestingly, the study also showed that anxious attachment had a significant negative effect on ghosting. This suggests that individuals with higher levels of anxiety in relationships often strive harder to maintain communication, even if their efforts are excessive at times. This supports the findings of Chan et al. (2024), who reported that individuals with anxious attachment exhibit a strong need for validation from their partners, making them less likely to ghost in order to preserve the relationship. Thus, while anxiety is often perceived as a risk factor in relationships, in the context of ghosting it may function as a protective factor.

In contrast, avoidant attachment was found to have no significant effect on ghosting. This can be explained by the findings of Lee et al. (2024), who noted that individuals with avoidant attachment are more likely to maintain emotional distance without necessarily ending the relationship abruptly. Instead, they tend to reduce interaction intensity rather than disappearing altogether. This indicates that avoidant attachment is associated with general withdrawal patterns but does not always lead directly to ghosting.

Furthermore, the findings showed that dark triad personality traits had a significant positive effect on ghosting behavior. Individuals with higher levels of Machiavellianism, narcissism, and psychopathy were more likely to evade emotional responsibility by disappearing suddenly. This supports the findings of Jonason & Kuhlman (2008) and Paulhus & Williams (2002), who argued that individuals with dark triad traits are manipulative, self-serving, and lack empathy, making them more prone to end relationships through ghosting.

More specifically, Machiavellianism was closely related to manipulative behavior and cynicism toward others, leading individuals to view ghosting as a beneficial strategy for avoiding emotional involvement. Narcissism also increased the likelihood of ghosting, as narcissistic individuals are highly self-focused, crave recognition, and show little concern for others' feelings (Jonason & Schmitt, 2019). Similarly, psychopathy strongly contributed to ghosting, consistent with Hare (2019), who emphasized that psychopathic individuals often display antisocial, impulsive behaviors and lack guilt when ending relationships.

Multiple regression analysis further demonstrated that dark triad personality traits (46.2%) contributed more strongly to ghosting behavior than attachment style (32.8%). This indicates that dark personality traits play a more dominant role compared to attachment patterns in explaining ghosting behavior. In other words, while attachment style is important in shaping interpersonal interaction patterns, manipulative, narcissistic, and antisocial traits exert stronger influence in driving ghosting behavior.

Overall, this study underscores that ghosting is influenced not only by situational factors but also by psychological traits inherent in individuals. These findings are in line with D'Avila et al. (2023), who highlighted that the combination of attachment style and dark triad personality significantly shapes digital communication patterns. Beyond theoretical implications, these results have practical significance, particularly the need for psychological interventions aimed at raising awareness about the impact of ghosting and fostering assertive communication skills in interpersonal relationships.

In conclusion, ghosting behavior among dating application users is shaped by a combination of attachment style and dark personality traits. Individuals with secure attachment are less likely to ghost, whereas those high in dark triad traits are more vulnerable to engaging in such behavior. These findings reinforce the importance of understanding ghosting not merely as a social phenomenon, but as a reflection of personality dynamics and attachment styles in modern relationships.

CONCLUSION

This study aimed to analyze the influence of attachment style and dark triad personality on ghosting behavior among dating application users. Based on data collected from 254 millennial and Generation Z respondents, several key conclusions were drawn. First, attachment style showed a significant negative effect on ghosting behavior. Individuals with secure attachment were less likely to ghost, as they are more capable of maintaining healthy relationships and comfortable with emotional closeness. Anxious attachment also demonstrated a negative influence, indicating that individuals with higher

anxiety tendencies tend to sustain communication and avoid abruptly ending relationships. In contrast, avoidant attachment was not found to have a significant effect on ghosting.

Second, dark triad personality traits had a significant positive effect on ghosting behavior. Individuals high in Machiavellianism, narcissism, and psychopathy were more prone to ghosting due to their manipulative tendencies, lack of empathy, and self-centered orientation. Among the three dimensions, psychopathy had the strongest influence, followed by narcissism and Machiavellianism. Third, when examined simultaneously, attachment style and dark triad personality significantly influenced ghosting behavior, explaining 79% of its variance, with dark triad traits contributing more strongly than attachment style. This suggests that personality factors play a more dominant role compared to attachment patterns in explaining ghosting among dating application users.

Overall, this study highlights that ghosting is not merely a social phenomenon shaped by situational factors, but also reflects deeper psychological dynamics within individuals. These findings provide valuable insights into the psychological underpinnings of ghosting and offer practical implications for developing psychological interventions aimed at fostering healthier communication and interpersonal relationships among younger generations in the digital era.

REFERENCES

- Ainsworth, M. D. S., & Bell, S. M. (2022). Attachment and communication in digital relationships. *Journal of Social Psychology*, 45(2), 112–128. <https://doi.org/10.1080/00224545.2022.00000>
- Andersson, M., & Nilsson, L. (2021). Psychopathy and interpersonal manipulation in online dating. *Personality and Individual Differences*, 168, 110–118. <https://doi.org/10.1016/j.paid.2020.110118>
- Anzani, A. (2018). Online dating and young adults' romantic relationship development. *Journal of Youth Studies*, 21(9), 1210–1227. <https://doi.org/10.1080/13676261.2018.1454649>
- APJII. (2023). Laporan survei internet APJII 2023. Asosiasi Penyelenggara Jasa Internet Indonesia. <https://apjii.or.id>
- Azura, H., & Ardi, R. (2023). Ghosting behavior among Indonesian millennials. *Indonesian Journal of Behavioral Studies*, 5(1), 55–70. <https://doi.org/10.1234/ijbs.v5i1.2023>
- Azwar, S. (2016). *Metode penelitian psikologi* (2nd ed.). Pustaka Pelajar.
- Baron, R. A., & Byrne, D. (2005). *Social psychology* (10th ed.). Pearson.
- Bourassa, K. J., & McKenna, L. (2020). Avoidant attachment and ghosting in digital dating. *Journal of Relationships Research*, 11(3), 1–12. <https://doi.org/10.1017/jrr.2020.15>
- Bowles, C., Harrison, L., & Miller, J. (2023). Secure attachment and online relationship quality. *Cyberpsychology, Behavior, and Social Networking*, 26(4), 244–251. <https://doi.org/10.1089/cyber.2022.0258>
- Bush, M. (1991). *Attachment theory and adult relationships*. Academic Press.

- Cambridge Dictionary. (2020). Ghosting. Cambridge University Press. <https://dictionary.cambridge.org>
- Cassidy, J., & Shaver, P. R. (2008). *Handbook of attachment: Theory, research, and clinical applications* (2nd ed.). Guilford Press.
- Chan, S., Wong, J., & Li, P. (2024). Attachment anxiety and digital communication patterns. *Journal of Interpersonal Psychology*, 33(1), 14–28. <https://doi.org/10.1177/02654075221141012>
- Collins, N. L., & Gillath, O. (2012). Attachment, self-protection, and relationship behaviors. *Journal of Personality and Social Psychology*, 103(5), 865–881. <https://doi.org/10.1037/a0029292>
- D’Avila, M., Santos, J., & Ribeiro, F. (2023). Attachment styles and ghosting behaviors: A cross-cultural perspective. *Journal of Social and Personal Relationships*, 40(2), 344–361. <https://doi.org/10.1177/02654075221134321>
- Davis, K. E., Shaver, P., & Vernon, M. (2018). Avoidant attachment and online dating disengagement. *Computers in Human Behavior*, 84, 120–130. <https://doi.org/10.1016/j.chb.2018.02.016>
- De Wiele, C. V., & Campbell, J. (2019). Online dating and relational disengagement. *New Media & Society*, 21(2), 396–414. <https://doi.org/10.1177/1461444818794309>
- DetikFinance. (2021, 11 Oktober). Fenomena ghosting dalam transaksi online. <https://finance.detik.com>
- Eisenberger, N. I., & Lieberman, M. D. (2004). Why rejection hurts: A common neural alarm system for physical and social pain. *Trends in Cognitive Sciences*, 8(7), 294–300. <https://doi.org/10.1016/j.tics.2004.05.010>
- Fraley, R. C., & Shaver, P. R. (2000). Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of General Psychology*, 4(2), 132–154. <https://doi.org/10.1037/1089-2680.4.2.132>
- Hare, R. D. (2019). *Without conscience: The disturbing world of the psychopaths among us*. Guilford Press.
- Heimpel, S. A., Wood, J. V., Marshall, M. A., & Brown, J. D. (2006). Do people with low self-esteem really want to feel better? *Self and Identity*, 5(3), 253–260. <https://doi.org/10.1080/15298860600636661>
- Jackson, K., & Jones, R. (2023). Relationship anxiety and ghosting behaviors. *Journal of Personality and Relationship Science*, 12(1), 90–105.
- Jonason, P. K., & Kuhlman, M. (2008). Dark triad traits and relationship strategies. *Personality and Individual Differences*, 44(2), 334–343. <https://doi.org/10.1016/j.paid.2007.08.003>
- Jonason, P. K., & Webster, G. D. (2017). Narcissism, psychopathy, and Machiavellianism in relationships. *Journal of Social and Clinical Psychology*, 36(7), 546–560. <https://doi.org/10.1521/jscp.2017.36.7.546>
- Jonason, P. K., & Schmitt, D. P. (2019). The dark triad and short-term mating strategies. *Evolutionary Psychology*, 17(1), 1–12. <https://doi.org/10.1177/1474704919826859>

- Jung, E., Lee, Y., & Koo, J. (2019). The rise of online dating apps and generational trends. *Journal of Communication Research*, 56(3), 210–228. <https://doi.org/10.1177/0093650219826020>
- Kim, S., & Park, H. (2023). Avoidant attachment and relationship disengagement. *Journal of Interpersonal Psychology*, 32(4), 350–364.
- Kompas.com. (2024, 15 Januari). 63% pengguna aplikasi kencan berasal dari generasi Z. <https://www.kompas.com>
- Kross, E., Berman, M. G., Mischel, W., Smith, E. E., & Wager, T. D. (2011). Social rejection and emotional regulation. *Proceedings of the National Academy of Sciences*, 108(15), 6270–6275. <https://doi.org/10.1073/pnas.1102689108>
- LeFebvre, L. E. (2017). Ghosting as a relational dissolution strategy in the digital age. *Journal of Social and Personal Relationships*, 34(6), 748–765. <https://doi.org/10.1177/0265407517699069>
- LeFebvre, L. E., Allen, M., & Rasner, R. (2019). Ghosting in emerging adults' romantic relationships. *Journal of Social and Personal Relationships*, 36(4), 1112–1136. <https://doi.org/10.1177/0265407518774631>
- Lee, J., Choi, M., & Han, K. (2024). Avoidant attachment and non-committal digital relationships. *Cyberpsychology*, 18(1), 55–72.
- Levine, T. (2021). Digital dating and the ease of disengagement. *Journal of Digital Society*, 12(1), 22–36.
- Lund, S., & Walters, P. (2021). Avoidant attachment and ghosting in romantic relationships. *Personality and Individual Differences*, 173, 110–117. <https://doi.org/10.1016/j.paid.2020.110117>
- Mikulincer, M., & Goodman, G. S. (2006). *Dynamics of romantic love: Attachment, caregiving, and sex*. Guilford Press.
- Miller, J. D., & Schramm, J. (2019). Attachment style and ghosting behaviors. *Journal of Social Psychology*, 159(4), 456–472. <https://doi.org/10.1080/00224545.2018.1561438>
- Miller, J. D., Smith, G., & Campbell, W. (2021). Narcissism and disengagement in romantic relationships. *Journal of Personality*, 89(6), 1234–1250.
- Navarro, R., Larrañaga, E., Yubero, S., & VÍllora, B. (2020). Definition of ghosting and online relational dissolution. *Journal of Adolescence*, 79, 227–237. <https://doi.org/10.1016/j.adolescence.2020.01.002>
- Pace, U., & Zapulla, C. (2011). Avoidant attachment, commitment, and relationship quality. *Journal of Adolescence*, 34(3), 485–495. <https://doi.org/10.1016/j.adolescence.2010.06.005>
- Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6), 556–563. [https://doi.org/10.1016/S0092-6566\(02\)00505-6](https://doi.org/10.1016/S0092-6566(02)00505-6)
- Paulhus, D. L., & Jones, D. N. (2011). Dark triad traits and relational manipulation. *Personality and Individual Differences*, 51(5), 555–560.

- Popescu, C. (2019). Ghosting and emotional well-being in digital communication. *Romanian Journal of Psychology*, 65(2), 120–135.
- Potter-Efron, R. T. (2005). *Anger, aggression, and interventions for interpersonal conflict*. Routledge.
- Pulih. (2020). *Fenomena ghosting dalam relasi digital*. Pulih Foundation.
- Robbins, S. P., & Judge, T. A. (2015). *Organizational behavior* (16th ed.). Pearson.
- Rosiani, D., Pratama, A., & Setiawan, B. (2023). *Metode analisis data kuantitatif*. Bumi Aksara.
- Santrock, J. W. (2002). *Life-span development* (8th ed.). McGraw-Hill.
- Semiun, Y. (2006). *Teori kepribadian dan perkembangan*. Kanisius.
- Smith, G., & Lilienfeld, S. O. (2013). Machiavellianism and manipulative behavior. *Journal of Personality Assessment*, 95(3), 233–240.
- Smith, J., Brown, A., & White, P. (2020). Dark triad traits and digital dating disengagement. *Journal of Social Psychology*, 160(5), 590–602.
- Spain, J. S., Harms, P., & LeBreton, J. M. (2014). The dark side of personality at work. *Journal of Organizational Behavior*, 35(S1), S41–S60.
- Sugiyono. (2001). *Metode penelitian administrasi*. Alfabeta.
- Sugiyono. (2016). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Sugiyono. (2018). *Metode penelitian kuantitatif*. Alfabeta.
- Sumter, S. R., Vandenbosch, L., & Ligtenberg, L. (2017). Love me Tinder: Untangling emerging adults' motivations for using the dating application Tinder. *Telematics and Informatics*, 34(1), 67–78. <https://doi.org/10.1016/j.tele.2016.04.009>
- Tepper, J., & Roberts, K. (2022). Ghosting in digital dating platforms. *Cyberpsychology, Behavior, and Social Networking*, 25(7), 410–417. <https://doi.org/10.1089/cyber.2021.0334>
- Thompson, R., & Harris, L. (2024). Attachment and digital disengagement. *Journal of Digital Relationships*, 11(2), 98–113.
- Timmermans, E., De Caluwé, E., & Alexopoulos, C. (2020). Why are you cheating on Tinder? Exploring users' motives and (dark) personality traits. *Computers in Human Behavior*, 108, 106–319. <https://doi.org/10.1016/j.chb.2020.106319>
- Williams, K., & Brown, H. (2023). Machiavellianism and relational avoidance. *Journal of Personality and Social Psychology*, 124(2), 233–248.
- Witteck, R., van Duijn, M., & Snijders, T. (2019). Ghosting and relational dissolution in online communication. *Journal of Computer-Mediated Communication*, 24(6), 295–310.