

College Students' Online Self-Disclosure during COVID-19 Pandemic: The Role of Need for Relatedness, Passing Time, and Gender

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ABSTRACT

The COVID-19 pandemic has forced many people, including college students, to hold back and reduce various offline activities and social relations. The use of social media is one of way out to keep college students open and connected with many people. This study aims to reveal the effect of the need for relatedness and passing time by considering gender on online self-disclosure through social media. This study involved 253 students from several campus locations who live in the Jakarta Greater Area. The statistical analysis technique used is ANACOVA. The result showed a significant joint effect of the need for relatedness and passing time on online self-disclosure by considering gender. On the other hand, age emerges as variable that has a significant correlation with the rest variables.

Keywords: *Online self-disclosure, need for relatedness, passing time, gender, college student*

1. INTRODUCTION

The COVID-19 pandemic that has been going on since the early months of 2020 has had many consequences in various aspects of human life. One of the biggest aspects affected by the pandemic is human relations. Various policies such as regional lockdowns, physical distancing, the phenomenon of work from home to online learning force people to step back and review the limits of social interaction.

One group that feels the impact of the pandemic in various ways is college students. In accordance with the changes of fully online learning system, the social life of students has also changed drastically. The intensity of social relations that are usually built between friends is reduced in such a way. Physical encounters are very rare and if done in a specific context with a limited number. This fact causes adaptation problems and stress on students [1]. One of the best solutions that can be done is to deepen the intensity of digital communication and social relations with various platforms, for example by using social media.

Social media behavior is an interesting phenomenon to discuss, especially if it involves college students. Social media is considered to affect the way they communicate [2], including giving positive and negative consequences [3][4]. In the context of a pandemic, social media also plays a role in reducing stress and being a coping mechanism for stress [5]. Furthermore, college students are considered to feel comfortable in interacting using social media. The tendency to be open in revealing many things is a common thing that

many individuals do on social media. Online self-disclosure is behavior that open many things including information about oneself that is carried out online [6]. Individuals feel the need to open up or open themselves further on social media to get various things they want, such as positive feedback that is useful for mental health [7], including developing and maintaining existing social relationships [8]. Openness on social media can attract many other people to interact.

Davis's study [9] stated that the way adolescent boys and girls communicate online is quite different. Teenage boys can be more open online than offline when communicating when features that are considered easier to communicate such as audio or visual cues are removed, especially for social motives [10][11]. Meanwhile, girl's groups are considered more easily open online to things that are emotional in nature, one of which is related to social support [12]. These findings are interesting that it turns out that online self-disclosure is not too gender-dominated and can stand out according to the motives and content of the self-disclosure.

One thing that is considered to encourage online self-disclosure is the need for relatedness. Social media clearly accommodates this [13]. Need for relatedness is the tendency of individuals to feel connected to others, to be members of a group, to be loved and cared for by others [14]. The need to always be connected is found as one of the very basic needs. The fact is, the need to connect makes individuals try to maintain social relations, stay away from negative affect, and so that others perceive that the individual is serious in establishing social relationships

[14]. In a pandemic situation, individuals must remain open to maintain social relations in cyberspace and so that many people remain comfortable and trust to interact with themselves. The greater the need for relatedness, the greater the tendency of individuals to open themselves on social media. Several previous findings confirm this [8][15]. The context of the pandemic also has other consequences. When many activities must be done online, there are many moments where individuals feel both stressed and bored [16]. The use of social media is also often associated with boredom [17]. So, it is logical that individuals then use social media and express openness to others online because they want to fill their spare time because of boredom [17][18]. Passing time is one of the motives of individuals using social media to escape from boredom [19]. Understanding how college students conduct online self-disclosure becomes interesting in this pandemic situation, especially when considering the need for relatedness and passing time controlled by gender as variables that influence it. The hypothesis of this study is there is an effect of need for relatedness and passing time by considering gender on online self-disclosure in students.

2. METHODS

Participants involved in this study were 253 college students from Jakarta Greater Area. Most participants were women (N = 179; 70.75%) and followed by men (N = 74; 29.24%). Participants were reached by using online questionnaires distributed through a network of lecturers and class representatives on several campuses located in different cities. The majority lived in Jakarta (N = 113; 44.66%), followed by Bekasi (N = 48; 18.97%), Tangerang (N = 42; 16.6%), Depok (N = 29; 11.46%), and Bogor (N = 21; 8.3%). Meanwhile, the overall mean participant’s age was 20.19 years (SD = 0.87). The mean of age for female participants was 20.13 years (SD = 0.88), and for male participants was 20.35 years (SD = 0.85). The next data is about the social media that is actively used by the participants. Participants are allowed to answer more than one answer. WhatsApp is the most mentioned platform

(31.90%). It is followed by other platform such as Instagram (24.53%), Facebook (13.4%), Twitter (11.52%), Telegram (8.17%), Line (3.61%), TikTok (3.48%), and Youtube (3.35%).

Online self-disclosure in this study was measured using a scale from Krasnova et al. [20]. This scale has 4 items and a range from “highly unsuitable” to “highly appropriate” with a score of 1-5. The Cronbach's alpha of this scale is 0.971.

Need for relatedness in this study was measured by using a part of the need of fulfilment scale from Sheldon et al. [21] which consists of 3 items, especially for the need for relatedness section. This scale has a range from “highly unsuitable” to “highly appropriate” with a score of 1-5. Cronbach's alpha for this scale is 0.971.

Passing time in this study was measured using a scale from Hollenbough [19] which consists of 2 items. This scale has a range from “highly unsuitable” to “highly appropriate” with a score of 1-5. Cronbach's alpha for this scale is 0.945. Gender in this study is known through the contents of self-identity. The score for male participants was given a point of 1, while the score for female participants was given a number of 0. Meanwhile, information about the social media that was actively used was also asked in the self-identity section where participants could choose more than one answer.

The main data analysis technique in this study was using anacova to see the effect of need for relatedness and passing time on online self-disclosure by considering gender as a control variable. Prior to this, a correlation matrix will be given to provide an initial picture of the relationship between the variables to be studied.

3. RESULT AND DISCUSSION

Based on the processed statistical data, it is known that the need for relatedness has the strongest significant correlation followed by passing time. Meanwhile, age has a significant negative correlation. More complete data can be seen in Table 1.

Table 1 Correlation Matrix from All Variables

	1	2	3	4
1. Online self-disclosure				
2. Need for relatedness	0.830**			
3. Passing time	0.628**	0.649**		
4. Age	-0.337**	-0.162**	-0.175**	
Mean	11.63	9.72	7.40	20.19
SD	4.45	3.24	1.98	0.87

Note: 1 = online self-disclosure, 2 = need for relatedness, 3 = passing time, 4 = age

Table 2 Anacova Analysis

Source	Type III Sum of Squares	df	Mean square	F	Sig.
Corrected model	4155.978 ^a	49	84.816	20.284	.000
Intercept	381.985	1	381.985	91.352	.000
Sex	76.041	1	76.041	18.185	.000
NfR	246.386	12	20.532	4.910	.000
PT	171.607	6	28.601	6.840	.000
NfR * PT	191.867	30	6.396	1.530	.046
Error	848.836	203	4.181		
Total	39239.000	253			
Corrected Total	5004.814	252			

Note: dependent variable = online self-disclosure, NfR = need for relatedness, PT = passing time

^aR Squared = .830 (Adjusted R Square = .789)

The first interesting finding that appeared was a correlation between age and the variables involved. The older participants, the lower the behavior of self-disclosure appears on social media, and the need for relatedness, and the tendency to spend free time participants on social media. This can happen because of the emotional maturity of students [22] which makes them wiser. Age affects emotional maturity [23], and emotional maturity helps individuals develop self-control in many ways [24].

The main data analysis can be seen in Table 2. The statistical findings confirm strong influence of need for relatedness and passing time together on online self-disclosure by considering gender. It means that students who participated in this study need to always be related to other people with their various social media, which is in line with the opinion of Hwang et al. [25]. This is the basic urge of humans as social beings to always be connected to one another. The COVID-19 pandemic has created various psychological problems that must be overcome by many people, including college students. Need for relatedness encourages online self-disclosure that is reciprocal and mutually beneficial [8]. When students open themselves up in many ways with various motives on their various social media, then they will get many benefits. Some of these things are reduced loneliness [26][27] and help individuals develop resilience through sharing positive things or online prosocial behavior [28][29].

The condition of students at home sometimes leaves a lot of free time because online learning is not done all day long. Moments where individuals are not doing many things are often used to interact through social media. In simpler language, students try to spend their free time using social media [9][30]. Meanwhile, as previously explained, this research reveals that Instagram is one of the most active social media used by students. It also helps address the role of passing time in online self-disclosure behavior. Kircaburun's study [31] stated that Instagram is a social

media that is widely associated with passing time and for entertainment purposes. Of course, the problem of boredom is one reason from students involved in social media to spend the free time [17][32].

Gender affects online self-disclosure due to differences in individual motivation. Cho [33] stated that the intrinsic motivation commonly associated with the social media behavior, among others, is to obtain and maintain interpersonal relationships, while the extrinsic motivation is for entertainment. Women usually use social media related to interpersonal relationships [34][35], while men tend to be more open and share things that are non-emotional and technical [36], as well as motivation to be popular [37], and for personal utility [38].

4. CONCLUSION

The COVID-19 pandemic has forced students to intensely use social media and display online self-disclosure behavior that are influenced by the need for relatedness and passing time, as well as considering the role of gender. The need to always be socially connected even though it is difficult to meet offline, as well as the motivation to spend free time encourages individuals to be more open on social media. Meanwhile, increasing age is also considered to decrease online-self-disclosure, need for relatedness, and passing time through online social media.

REFERENCES

- [1] X. Zhang, P. F. Huang, B. Q. Li, W. J. Xu, W. Li, and B. Zhou, "The influence of interpersonal relationships on school adaptation among Chinese

university students during COVID-19 control period: Multiple mediating roles of social support and resilience”, *Journal of Affective Disorder*, vol 285, pp. 97-104, 2021, DOI: <https://doi.org/10.1016/j.jad.2021.02.040>

[2] B. Kim, and Y. Kim, “College students’ social media use and communication network heterogeneity: Implications for social capital and subjective well-being”, *Computers in Human Behavior*, vol 73. Pp. 620-628, 2017. DOI: [10.1016/j.chb.2017.03.033](https://doi.org/10.1016/j.chb.2017.03.033)

[3] J. Chae, “Reexamining the relationship between social media and happiness: The effects of various social media platforms on reconceptualized happiness”, *Telematics and Informatics*, vol 35(6), pp 1656-1664, 2018. DOI: [10.1016/j.tele.2018.04.011](https://doi.org/10.1016/j.tele.2018.04.011)

[4] G. G. Groth, L. M. Longo, and J. L. Martin, “Social media and college student risk behaviors: A mini-review”, *Addictive Behavior*, vol 65, pp. 87-91, 2017. DOI: [10.1016/j.addbeh.2016.10.003](https://doi.org/10.1016/j.addbeh.2016.10.003)

[5] J. Brailovskaia, P. Ozimek, and H. W. Bierhoff, “How to prevent side effects on social media use (SMU)? Relationship between daily stress, online social support, physical activity and addictive tendencies – A longitudinal approach before and during the first COVID-19 lockdown in Germany”, *Journal of Affective Disorders Reports*, vol 5, 1001144, 2021. DOI: <https://doi.org/10.1016/j.jadr.2021.100144>

[6] J. Kim, and K. Dindia, “Online self-disclosure: A review of research”, in *Computer-mediated communication in personal relationships*, K.B. Wright and L.M. Webb, Eds., Peter Lang Publishing, New York, 2011, pp. 156-180.

[7] J. B. Walther, “Selective self-presentation in computer-mediated communication: Hyperpersonal dimensions of technology, language, and cognition”, *Computers in Human Behavior*, vol 23, pp. 2538-2557, 2007. DOI: [10.1016/j.chb.2006.05.002](https://doi.org/10.1016/j.chb.2006.05.002)

[8] Y. Dai, S. Y. Shin, N. Keshian, J. W. Jang, and J. B. Walther, “The influence of responses to self-disclosure on liking in computer-mediated communication”, *Journal of Language and Social Psychology*, pp. 1-18, 2015. DOI: [10.1177/0261927X15602515](https://doi.org/10.1177/0261927X15602515)

[9] K. Davis, “Friendship 2.0: Adolescents’ experiences of belonging and self-disclosure online”. *Journal of Adolescence*, vol 35, pp. 1527-1536, 2012. DOI: [10.1016/j.adolescence.2012.02.013](https://doi.org/10.1016/j.adolescence.2012.02.013)

[10] A. P. Schouten, P. M. Valkenburg, and J. Peter, “Precursors and underlying processes of adolescents’ online self-disclosure: Developing and testing an “Internet-Attribute-Perception” model”, *Media Psychology*, vol 10(2), pp. 292-315, 2007. DOI: <https://doi.org/10.1080/15213260701375686>

[11] C. W. Chang, and J. Heo, “Visiting theories that predict college students’ self-disclosure on Facebook”, *Computers in Human Behavior*, vol 30, pp. 79-86, 2014. DOI: [http://dx.doi.org/10.1016/j.chb.2013.07.059](https://doi.org/10.1016/j.chb.2013.07.059)

[12] S. Li, K. D. Coduto, and L. Morr, “Communicating social support online: The roles of emotional disclosures and gender cues in support provision”, *Telematics and Informatics*, vol 39, pp. 92-100, 2019. DOI: <https://doi.org/10.1016/j.tele.2019.02.004>

[13] W. P. Special, and K. T. Li-Barber, “Self-disclosure and student satisfaction with Facebook”, *Computers in Human Behavior*, vol 28, pp. 624-630, 2012. DOI: [10.1016/j.chb.2011.11.008](https://doi.org/10.1016/j.chb.2011.11.008)

[14] R. F. Baumeister, and M. R. Leary, “The need to belong: Desire for interpersonal attachments as a fundamental human motivation”, *Psychological Bulletin*, vol 117, pp. 497-529, 1995. DOI: <https://doi.org/10.1037/0033-2909.117.3.497>

[15] Y. Liu, R. D. Liu, Y. Ding, J. Wang, R. Zhen, and L. Xu, “How online basic psychological need satisfaction influences self-disclosure online among Chinese adolescents: Moderated mediation effect of exhibitionism and narcissism”, *Frontiers in Psychology*, vol 7, article 1279, 2016. DOI: [10.3389/fpsyg.2016.01279](https://doi.org/10.3389/fpsyg.2016.01279)

[16] L. Yan, Y. Gan, X. Ding, J. Wu, and H. Duan, “The relationship between perceived stress and emotional distress during the COVID-19 outbreak: Effects of boredom proneness and coping style”, *Journal of Anxiety Disorders*, vol 77, 102328, 2021. DOI: <https://doi.org/10.1016/j.janxdis.2020.102328>

[17] L. A. Stockdale, and S. M. Coyne, “Bored and online: Reason for using social media, problematic social networking site use, and behavioral outcomes across the transition from adolescence to emerging adulthood”, *Journal of Adolescence*, vol 79, pp. 173-183, 2020. DOI: <https://doi.org/10.1016/j.adolescence.2020.01.010>

[18] L. Leung, “Exploring the relationship between smartphone activities, flow experience, and boredom in free time”, *Computers in Human Behavior*, vol 103 pp.

130-139, 2020. DOI:

<https://doi.org/10.1016/j.chb.2019.09.030>

[19] E. E. Hollenbaugh, and A. L. Ferris, "Facebook self-disclosure: Examining the role of traits, social cohesion, and motives", *Computers in Human Behavior*, vol 30, pp. 50-58, 2014. DOI: <http://dx.doi.org/10.1016/j.chb.2013.07.055>

[20] H. Krasnova, S. Spiekermann, K. Koroleva, and T. Hildebrand, "Online social networks: Why we disclose", *Journal of Information of Technology*, vol 25 pp. 109-125, 2010. DOI: 10.1057/jit.2010.6

[21] K. M. Sheldon, A. J. Elliot, Y. Kim, and T. Kasser, "What is satisfying about satisfying events? Testing 10 candidate psychological needs", *Journal of Personality and Social Psychology*, vol 80(2), pp. 325-339, 2021. DOI: 10.1037//O022-3514.80.2.325

[22] D. Singh, S. Kaur, and G. Dureja, "Emotional maturity differentials among university students", *Journal of Physical Education and Sport Management*, vol 3(3), pp. 41-45, 2012. DOI: 10.5897/JPESM11.076

[23] M. C. Jobson, "Emotional maturity among adolescents and its importance", *Indian Journal of Mental Health*, vol 7(1), pp. 1-7, 2021.

[24] S. P. Shamsudheen, P. D. Bhisimi, and A.V. Appu, "A study of emotional maturity and self-control on Machiavellianism among office workers", *Indian Journal of Health & Wellbeing*, vol 8(11), pp. 1325-1334, 2017

[25] T. J. Hwang, K. Rabheru, C. Peisah, W. Reichman, and M. Ikeda, "Loneliness and social isolation during the COVID-19 pandemic", *International Psychogeriatrics*, vol 26, pp. 1-4, 2020. DOI: 10.1017/S1041610220000988

[26] V. Boursier, F. Gioia, A. Musetti, and A. Schimmenti, "Facing loneliness and anxiety during the COVID-19 isolation: The role of excessive social media use in a sample of Italian adults", *Frontiers in Psychiatry*, vol 11, 586222, 2020. DOI: 10.3389/fpsy.2020.586222

[27] L. Thomas, E. Orme, and F. Kerrigan, "Student loneliness: The role of social media through life transitions", *Computers & Education*, vol 146, 10374, 2020. DOI: <https://doi.org/10.1016/j.compedu.2019.103754>

[28] Y. Marzouki, F. S. Aldossari, and G. A. Veltri, "Understanding the buffering effect of social media use on anxiety during the COVID-19 pandemic lockdown",

Humanities & Social Science Communications, vol 8(47), pp. 1-10, 2021. DOI: <https://doi.org/10.1057/s41599-021-00724-x>

[29] P. McLaughlin, B. Kennedy, A. Harris, M. Hamilton, J. Richardson, and S. Holman-Jones, "Online and social media resilience in young people in vulnerable context", *Vulnerable Children and Youth Studies*, pp. 1-11, 2020. DOI: 10.1080/17450128.2020.1849886

[30] M. Kolhar, R. N. A. Kazi, and A. Alameen, "Effect of social media use on learning, social interactions, and sleep duration among university students", *Saudi Journal of Biological Sciences*, vol 28, pp. 2216-2222, 2021. DOI: <https://doi.org/10.1016/j.sjbs.2021.01.010>

[31] K. Kircaburun, S. Alhabash, S. B. Tosuntas, and M. D. Griffiths, "Uses and gratifications of problematic social media use among university students: A simultaneous examination of the Big Five personality traits, social media platforms, and social media use motives", *International Journal of Mental Health and Addiction*, vol 18, pp. 525-547, 2018. DOI: <https://doi.org/10.1007/s11469-018-9940-6>

[32] A. Whitting, and D. Williams, "Why people use social media: A uses and gratifications approach", *Qualitative Market Research: An International Journal*, vol 16(4), pp. 362-369, 2013. DOI: 10.1108/QMR-06-2013-004

[33] S. H. Cho, "Effects of motivations and gender on adolescents' self-disclosure in online chatting", *CyberPsychology & Behavior*, vol 10(3), pp. 339-345, 2007, doi: 10.1089/cpb.2006.9946

[34] N. Park and H. Lee, "Gender differences in social networking on smartphones: A case study of Korean college student smartphone users", *International Telecommunication Policy Review*, vol 21(2), pp. 1-18, 2014.

[35] B. Schivinski, M. Brzowska-Wos, E. Stansbury, J. Satel, C. Montag, and H. M. Pontes, "Exploring the role of social media use motives, psychological well-being, self-esteem, and affect in problematic social media use", *Frontiers in Psychology*, vol 11, 617140, 2020. DOI: 10.3389/fpsy.2020.617140

[36] J. S. Lim, J. H. Heinrich, and K. S. Lim, "Gender and hedonic usage motive differences in social media site usage behavior", *Journal of Global Marketing*, vol 30(3), pp. 161-173, 2017. DOI: 10.1080/08911762.2017.1308615

[37] J. C. Chen, A. E. Widjaja, and D. C. Yen, "Need for affiliation, need for popularity, self-esteem, and the moderating effect of Big Five personality trait affecting individuals' self-disclosure on Facebook", *International Journal of Human-Computer Interaction*, vol 31, pp. 815-831, 2015. DOI: 10.1080/10447318.2015.1067479

[38] J. J. Al-Menayes, "Motivations using social medial: An exploratory factor analysis", *International Journal of Psychological Studies*, vol 7(1), pp. 43-50, 2015. DOI: 10.5539/ijps.v7n1p43