DOI: http://dx.doi.org/10.15408/tazkiya.v10i2.24988

http://journal.uinjkt.ac.id/index.php/tazkiya

Empathy as a Mediator of the Effect of Dark Triad Personality, Social Support, and Demographic Factors on Cyberbullying Behavior in SMAN 10 Depok Students

Bernianti Lingga Sari¹, Yufi Adriani²

STAI Sadra Jakarta, Indonesia¹ Faculty of Psychology, UIN Syarif Hidayatullah Jakarta, Indonesia²

linggazahfa@gmail.com

Abstract

This study examines empathy as a mediator of the dark triad personality, social support, and demographic factors on cyberbullying behavior in SMAN 10 Depok students. The study was conducted on 428 students of SMAN 10 with purposive sampling technique. The measuring tools used in this study are Tudkuea's Cyberbullying Scale, The Short Dark Triad (SD3), The Interpersonal Reactivity Index (IRI), and the Multidimensional Scale of Perceived Social Support (MSPSS). Data analysis using Path Analyze with MPlus 7.4 software. Based on the results of the analysis of the research data, a fit model was found so that it can be concluded that the theoretical model of Empathy as a mediator of the influence of dark triad personality, social support & demographic factors on cyberbullying behavior fits with empirical data. This means that Empathy acts as a mediator of the influence of dark triad personality, social support & demographic factors on cyberbullying behavior. Then the results of research data analysis related to direct influence reported that there was a significant effect of Machiavellianism and gender directly on cyberbullying, while narcissism, psychopathy, family support, peers support, and significant others had no significant effect on cyberbullying. In addition, the results of the hypothesis test also reported that there was a direct significant effect of narcissism, peers support and gender on Empathy, while there was no significant effect of psychopathic machiavellianism, family support and significant other (teachers) directly on Empathy.

Keywords: cyberbullying, dark triad personality, empathy, social support, machiavellianisme

Abstrak

Penelitian ini bertujuan untuk menguji empati sebagai mediator dark triad personality, social support dan faktor demografi terhadap perilaku cyberbullying pada siswa SMAN 10 Depok. Studi dilakukan pada 428 siswa SMAN 10 dengan teknik purposive sampling. Adapun alat ukur yang digunakan dalam penelitian ini adalah, adalah Tudkuea's Cyberbullying Scale, The Short Dark Triad (SD3), The Interpersonal Reactivity Index (IRI) dan Multidimensional Scale of Perceived Social Support (MSPSS). Analisis data menggunakan Path Analyze dengan software Mplus 7.4. Berdasarkan hasil analisis data penelitian didapatkan model yang fit sehingga dapat disimpulkan bahwa model teoritik empati sebagai mediator pengaruh dark triad personality, social support & faktor demografis terhadap perilaku cyberbullying fit dengan data empirik. Artinya empati berperan sebagai mediator pengaruh dark triad personality, social support & faktor demografis terhadap perilaku cyberbullying. Kemudian hasil analisis data penelitian terkait pengaruh langsung melaporkan bahwa ada pengaruh signifikan dari machiavellianisme dan jenis kelamin secara langsung terhadap cyberbullying sedangkan narsisme, psikopat, family support, peers support dan significant others tidak berpengaruh signifikan

terhadap cyberbullying. Selain itu hasil uji hipotesis juga melaporkan bahwa ada pengaruh signifikan secara langsung dari narsisme, peers support dan jenis kelamin terhadap empati sedangkan tidak ada pengaruh yang signifikan dari machiavellianisme psikopat, family support dan significant other (guru) secara langsung terhadap empati.

Kata kunci: cyberbullying, dark triad personality, dukungan sosial, empati, machiavellianisme

Introduction

The progress of information technology is currently growing rapidly, especially with the presence of the internet. The existence of the internet has made it easy for the public to access various kinds of news, services, and information quickly with a global reach. Especially during the Covid-19 pandemic, the online learning policy (School from Home) has made the internet the main facilitator for carrying out the teaching and learning process at educational institutions around the world, and this indirectly encourages teachers and students to access the internet.

According to We Are Social data, active users of social media in 2021 reached 170 million users with a frequency of 3 hours per day. One study reported that the frequency of social media use reached 90.1% among high school students (Mulyana, 2020). At this stage, students tend to have high curiosity, always want to try new things including trying all the facilities provided by the internet, such as social media. We Are Social (2021) reports that there are five social media that are mostly used in Indonesia, namely: Youtube, Whatsapp, Instagram, Facebook & Twitter.

The presence of social media not only makes it easy for students to communicate but also provides opportunities for students to carry out *cyberbullying behavior*. As the results of research Sticca et al. (2013), the frequency of time used in online communication positively correlates with cyberbullying behavior. According to Tudkuea & Laeheem (2014), cyberbullying is individual or group behavior that is carried out to harm other individuals or groups through social media, there are five forms of cyberbullying; flaming, slandering, refer, secret and deletion.

Several previous studies related to cyberbullying have been carried out, one of which is a study conducted by Hinduja & Patchin (2008) in the United States involving 1,387 students aged less than 18 years. women are perpetrators of cyberbullying. Furthermore, research in South Korea on respondents aged 12-15 years reported that out of 4000 respondents, 34% of respondents were involved in cyberbullying in Indonesia. where 6.3% are perpetrators, 14.6% are victims, while 13.1% are perpetrators and also victims of cyberbullying (Lee & Shin, 2017).

Cyberbullying behavior has an impact on both perpetrators and victims, including having low self-esteem, high anxiety, depression, truancy, aggressive behavior, and consuming alcohol or illegal drugs. At the most extreme level, cyberbullying can lead to suicide (Patchin & Hinduja, 2010).

Researchers use the dark triad personality factor as an internal factor that is a predictor of cyberbullying behavior. Meanwhile, by Paulhus & Williams (in Lyons, 2019) dark triad personality is defined as individuals with tendencies that lead to unwanted negative behavior, namely Machiavellianism, narcissism, and psychopathy. Machiavellianism is defined as an individual who has a cynical attitude in interpersonal relationships, calculation, manipulating and deceiving others for personal gain in achieving goals. These individuals have a fear of social rejection that makes them prefer to communicate online because they can manipulate others more easily. Adolescents and early adults with high machiavellianism characteristics have a significant relationship with cyberbullying (Kircaburun et al., 2018). There are four elements of Machiavellianism, namely; reputation, cynicism, coalition building, and planning (Jones & Paulhus, 2014). Research from Peterson & Densley (2017) reports Machiavellianism is a strong predictor of cyberbullying behavior ranging from elementary school-aged children to college students. Narcissism is a pathological form of self-love, which is characterized by grandiosity prioritizing self-interest and feeling unique, wanting to be the center of attention, feeling more entitled and powerful are characteristics of narcissism. According to Jones & Paulhus (2014) narcissism

has the following indicators: Grandiosity, Exhibitionism, and Entitlement. Adolescents with high levels of narcissism perceive themselves as superior, special, and unique. Several studies have revealed that narcissism is positively related to cyberbullying among adolescents and early adults (Wright et al., 2020). While psychopaths are individuals with psychopathic personality lack empathy and remorse, are selfish, uncaring, impulsive, and inconsistent. There are four elements in a psychopath, namely antisocial behavior, erratic lifestyle, callous effect, and short-term manipulation. Research studies conducted by Goodboy & Martin (2015) reported that the dark triad personality, especially psychopaths, had a high correlation with cyberbullying behavior.

Researchers also examined demographic factors as indicators that influence cyberbullying behavior. One of the studies Hinduja & Patchin (2013) which examined demographic factors related to gender, grade/class and race reported that students with male sex and being in class VIII had a high significance with cyberbullying behavior while students with white races had little engage in cyberbullying. Furthermore, a study Lapidot-Lefler & Dolev-Cohen (2015) involving 469 students in grades VII-XII in Israel reported that male students were more likely to engage in cyberbullying than girls, but there was no significant relationship between grade and cyberbullying. According to Wade & Beran (2011) cyberbullying perpetrators tend to be boys than girls, this is due to differences in gender role socialization.

The external factor used in this research is social support. Zimet (1988) states that social support is support obtained from the closest people such as family, friends and support from other important individuals around the individual. Social support from the surrounding environment is important for every individual. This statement is supported by several research results, Fanti et al. (2012) which reports that social support from family and friends has a negative relationship towards cyberbullying. In addition, the direction of a negative relationship with cyberbullying is also shown in students who have high social support from peers (Calvete et al., 2010).

In addition to internal and external factors that are thought to influence cyberbullying behavior, this study will also examine the role of Empathy as a factor that can mediate the influence of dark triad personality, social support and demographic factors on cyberbullying behavior. Davis (in Van Lissa et al., 2017) states that Empathy is the affective and cognitive ability of a person to feel what is felt by others and understand the condition of others based on that person's perspective. Cognitive Empathy is the ability to adopt the perspective of others, while affective Empathy is the ability to feel the feelings of others (Caravita et al., 2009). According to Davis (1983) empathy consists of 4 dimensions: Perspective Taking, Fantasy, Empathic Concern and Personal Distress. Previous studies reported that machiavellianism as a trait of the dark triad personality has a positive influence on cyberbullying mediated by Empathy (Yuan et al., 2020). In other words, the dark triad can encourage students to carry out cyberbullying with Empathy as a mediator variable. Previous research reported that psychopathy and narcissism were correlated with low empathy Jonason et al. (2013) as well as Machiavellianism had a negative relationship with Empathy, meaning that individuals with high Machivellianism had low Empathy (Blötner et al., 2021). Meanwhile, social support in previous studies reported that social support has a positive relationship with Empathy, meaning that the higher the social support for individuals, the higher the Empathy (Park et al., 2015). This opinion is supported by research conducted by Miklikowska (2017) which reports that the support of family, friends and others has a positive effect on Empathy. The results of studies related to gender with empathy report that there are differences in Empathy for boys and girls, where girls have higher Empathy than boys (Del Rey et al., 2016). Differences in Empathy affect cyberbullying behavior in boys and girls (Ang & Goh, 2010). The results of this studies support the research statement which states that Empathy mediates gender differences in cyberbullying (Topcu & Erdur-Baker, 2012). A previous study of 2,070 students in Luxembourg reported that the empathic response of students who were cyberbullies was lower than the empathic response of students who did not cyberbully (Steffgen et al., 2011). So it is important to know the tendency of Empathy in students as a further effort in reducing cyberbullying behavior.

Methods

Participant

The population in this study were students of SMAN 10 Depok class X, XI, XII, totaling 943 students, consisting of 373 boys and 570 girls. While the number of samples in this study were 428 students who were taken by purposive sampling technique, which is a type of non-probability sampling. The sample criteria are students of SMAN 10 Depok class X, XI, XII, using one of the social media *Youtube, WhatsApp, Facebook, Instagram or Twitter*.

Measurement

Cyberbullying

In this study, researchers used a cyberbullying scale from Tudkuea & Laeheem (2014) covering 5 forms of cyberbullying behavior, namely: flaming, slandering, refer, secret and deletion consisting of 24 items, using 4-point of Likert scale (1= never, 2=rarely, 3=often, 4=always).)

Dark Triad Personality

Dark Triad Personality measuring instrument used refers to aspects of the Dark Triad Personality according to Jones & Paulhus (2013), namely machiavellianism, psychopathy and narcissism. This measuring instrument consists of 27 items and the researcher uses 4-point of Likert scale ranging from (1= strongly disagree, 2= disagree, 3= agree, 4= strongly agree).

Empathy

Researchers adapted the empathy scale from Davis (1980) namely The Interpersonal Reactivity Index (IRI) into Indonesian, this measuring tool uses 4-point of Likert Scale with a total of 28 items consisting of four aspects, each aspect consists of 7 items as for these aspects among others: perspective taking (PT), fantasy scale (FS), empathic concern (EC), and personal distress (PD).

Social Support

The measuring instrument used by the researcher is the MSPSS (Multidimensional Scale of Perceived Social Support) consisting of 12 items, namely 4 items on the family dimension, 4 items on the friend dimension, and 4 items on the teacher dimension. The scale on this instrument uses using 4-point of Likert scale ranging from (1= strongly disagree, 2= disagree, 3= agree, 4 = strongly agree). The reliability of this instrument is .88.

Results and Discussion

Based on the results of the path analysis in **Table 1**., it can be seen that only Machiavellianism which has a significant effect on cyberbullying in a positive direction, while narcissism and psychopaths have no influence on cyberbullying, this result is not in accordance with the study conducted by Goodboy & Martin (2015) which stated that the dark triad personality (machiavellianism, narcissism, psychopathy) had a significant positive effect on cyberbullying. As stated by Jones & Paulhus (2014) narcissistic personalities tend to be more self-centered, consider themselves unique human beings, like to be the center of attention so that their energy is more focused on themselves than on others, students with narcissism tend to have cognitive Empathy higher because he needs more understanding to make sure others pay attention and make himself the center of attention, the time he has is more used to make himself the center of attention than cyberbullying. While a psychopath tends to lack Empathy and remorse, selfish, indifferent and impulsive. A psychopath tends to hurt and retaliate directly without hiding his identity from others, he doesn't care if his behavior will destroy his reputation. Meanwhile, students with Machiavellianism will make plans first before hurting others because they do not want their behavior to be known by others so that it will destroy the reputation they already have. Therefore, the Machiavellian personality will choose to do cyberbullying because apart from being able to realize their plans to hurt others, its reputation will remain safe and well maintained.

Another purpose of this study is to determine the direct effect of social support on cyberbullying as the results of research by Handono et al. (2019) on 210 respondents in Jakarta who reported that social support from family and peers was negatively correlated with cyberbullying, meaning that adolescents with low social support are more likely to engage in cyberbullying than those with high social support. The result of study report there was no direct significant effect between social support and cyberbullying. This shows that students' cyberbullying behavior is not influenced by the presence or absence of social support from family, friends or teachers but is caused by variables outside of that. Previous studies have reported that peer involvement and adult sanctions have an effect on cyberbullying. The influence of peers is very dominant, especially if students are in an environment of peers who carry out cyberbullying behavior, the opportunity for students to do the same is very large (Hinduja & Patchin, 2013). In addition, the belief that adults will give sanctions or penalties for cyberbullying behavior will affect the involvement of adolescents in cyberbullying (Hinduja & Patchin, 2013). Parents who can convey messages well and clearly to adolescent and consistent parental attitudes are proven to be effective in overcoming deviant behavior. Likewise with the role of educators in schools, clear rules and sanctions, especially against cyberbullying, affect cyberbullying behavior (Hinduja & Patchin, 2013). According to Oliver et al. (2007) students will first think about and understand the conditions in their family and school before deciding to tell their behavior, whether by telling stories students will get support or lose the support that has been previously obtained. In this study, it was reported that family support and significant others (teachers) were in the low category, meaning that students felt that their family and teachers did not provide support, assistance and a sense of value to themselves so that the assumption is that if students tell cyberbullying behavior, students will increasingly lose social support from their parents. and teacher. Even though peer support is in the high category, it could be that by telling cyberbullying behavior, students can lose the support they have received from their peers. However, there is a significant direct effect of gender on cyberbullying with a negative direction meaning that boys have a higher level of cyberbullying than girls.

The results of the **Table 1**. also report that narcissism has a significant effect on Empathy in a positive direction but not with machiavellianism and psychopaths who have no effect on Empathy. Likewise with social support, only peers have influence towards Empathy in a positive direction but there is no influence of family and teachers on Empathy. However, there is a significant effect of gender on Empathy in a positive direction, meaning that boys have lower Empathy than girls. While Empathy does not have a direct effect on cyberbullying. This result is not in accordance with the results of the study by Brewer & Kerslake (2015) which states that Empathy has a negative directional influence on cyberbullying. In addition, according to Schultze-Krumbholz & Scheithauer (2009), both perpetrators and victims of cyberbullying have lower Empathy than those who are not involved at all in cyberbullying. Even in another study found cyberbullying (Dautenhahn & Woods, 2003). According to Schultze-Krumbholz et.al (2015) empathy is not directly related to changes in cyberbullying behavior, long-term interventions are needed to increase Empathy so that cyberbullying behavior is reduced. Interventions that can be done by providing information about Empathy and cyberbullying, discussions or training to students

The results of the study report that the influence of boys is higher for cyberbullying than girls, with these results whether it can be concluded that cyberbullying is a specific behavior in certain genders. Based on previous studies, the results were varied and categorized into six categorization results, namely: first, there was no gender difference between perpetrators or victims of cyberbullying; second, boys have a high tendency to become perpetrators; third, boys are involved both as perpetrators and victims; fourth, mboys are more likely to be perpetrators than girls but for victims there is no difference in gender; fifth, there is no gender difference between perpetrators but girls are more victims; Sixth, girls are more perpetrators than men. From these categories the results are still varied, although this does not mean that gender analysis is useless, in fact gender is a key factor to be able to understand the phenomenon of cyberbullying, especially to understand aspects related to social pressure on the sexes that make boys and girls are more vulnerable to cyberbullying. It may also be necessary to add a review of other demographic factors such as age, where boys are more likely to be perpetrators in late adolescence while girls are more likely to be perpetrators or victims of cyberbullying in mid-childhood (Connel et al., 2013). Next, it is

necessary to analyze the awareness of each gender towards cyberbullying and the behavioral differences that might influence their response to cyberbullying (Akbaba et al., 2015).

Table 1. Path Analysis Results

Variable		Estimate	SE	Est/SE	Two Tailed P
Endogenous	Exogenous				, was
Cyberbullying	Machiavellianism	.197	.067	2.946	.007
	Narcissist	04	.064	615	.538
	Psychopath	.125	.065	1.923	.055
	Family Support	055	.07	791	.429
	Peers Support	041	.059	0692	.489
	Teacher	069	.049	-1.411	.158
	Empathy	.125	.076	1.653	.098
	Gender	236	.055	-4.272	.000
Empathy	Machiavellianism	.054	.068	.789	.430
	Narcissist	.174	.053	3.268	.001
	Psychopath	.109	.058	1.874	.061
	Family Support	.101	.052	1.951	.051
	Peers Support	.135	.054	2.483	.013
	Teacher	.059	.055	1.079	.281
	Gender	.346	.045	7.650	.000

Description: significant at 5% level (.05)

Conclusion

This study aims to determine Empathy as a mediator of the influence of dark triad personality, social support and demographic factors on cyberbullying although there is no significant effect of Empathy with cyberbullying so that there is no effect of exogenous variables on endogenous variables mediated by Empathy but there are several aspects of exogenous variables that affect cyberbullying or Empathy and even gender has an effect on both. For further research, suggestions from researchers are: it is reconsidered to use Empathy as a mediator of the influence of dark triad personality, social support and demographic factors on cyberbullying behavior, because from the results of the study the effect of Empathy on cyberbullying behavior is not significant so that it affects the indirect effect of other variables on cyberbullying behavior with Empathy as mediator. In addition, the social support variable should also be reconsidered to be used as an influencing variable, because although the study found a significant effect between peer support and Empathy, there was no significant effect between the three dimensions of social support on cyberbullying behavior. The limitation of this study is that there are no restrictions on perpetrators and victims, so that in the future for further research it is necessary to limit the sampling of perpetrators or victims.

Reference

- Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology*. https://doi.org/10.1111/j.1745-9125.1992.tb01093.x
- Akbaba, S., Peker, A., Eroğlu., Y., & Yaman, E. (2015). Cross-gender equivalence of cyber bullying and victimization. *Participatory Educational Research*, 2(2), 59-69. http://dx.doi.org/10.17275/per.15.15.2.2
- Ang, R. P., & Goh, D. H. (2010). Cyberbullying among adolescents: The role of affective and cognitive empathy, and gender. *Child Psychiatry and Human Development*, 41(4), 387–397. https://doi.org/10.1007/s10578-010-0176-3
- Baron-cohen, S., & Wheelwright, S. (2004). The empathy quotient: An investigation of adults with asperger syndrome or high functioning autism, and normal sex differences. *Journal of autism and developmental disorders*, 34(2), 163–175. https://doi.org/10.1023/b:jadd.0000022607.19833.00
- Blair, R. J. R. (2005). Responding to the emotions of others: Dissociating forms of empathy through the study of typical and psychiatric populations. *Consciousness and Cognition*, 14(4), 698–718. https://doi.org/10.1016/j.concog.2005.06.004
- Blötner, C., Steinmayr, R., & Bergold, S. (2021). Malicious mind readers? A meta-analysis on machiavellianism and cognitive and affective empathy. *Personality and Individual Differences*, 181. https://doi.org/10.1016/j.paid.2021.111023
- Brewer, G., & Kerslake, J. (2015). Computers in human behavior cyberbullying, self-esteem, empathy and loneliness. *Computers in Human Behavior*, 48, 255–260. https://doi.org/10.1016/j.chb.2015.01.073
- Calvete, E., Orue, I., Estévez, A., Villardón, L., & Padilla, P. (2010). Cyberbullying in adolescents: modalities and aggressors' profile. *Computers in Human Behavior*, 26(5), 1128–1135. https://doi.org/10.1016/j.chb.2010.03.017
- Caravita, S. C. S., Di Blasio, P., & Salmivalli, C. (2009). Unique and interactive effects of empathy and social status on involvement in bullying. *Social Development*, 18(1), 140–163. https://doi.org/10.1111/j.1467-9507.2008.00465.x
- Connell, N. M., Schell-Busey, N. M., Pearce, A. N., & Negro, P. (2014). Badgrlz? Exploring Sex differences in cyberbullying behaviors. *Youth Violence and Juvenile Justice*, 12(3), 209-228. 10.1177/1541204013503889
- Cotton, K. (2002). *Developing empathy in childern and youth.* http://www.nwrel.org/scpd/sirs/7/cu13/html.
- Davis, M.H. (1980) A Multidimensional Approach to Individual Differences in Empathy. JSAS Catalog of Selected Documents in Psychology, 10, 85.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. https://doi.org/10.1037//0022-3514.44.1.113
- Dautenhahn, K., & Woods, S. (2003). Possible connections between bullying behaviour, empathy and imitation. *Procs 2nd Int Symp on Imitation in Animals and Artifacts*, 68-77.
- Del Rey, R., Lazuras, L., Casas, J. A., Barkoukis, V., Ortega-Ruiz, R., & Tsorbatzoudis, H. (2016). Does empathy predict (cyber) bullying perpetration, and how do age, gender and nationality affect this relationship?. *Learning and Individual Differences*, 45, 275–281. https://doi.org/10.1016/j.lindif.2015.11.021
- Fanti, K. A., Demetriou, A. G., & Hawa, V. V. (2012). A longitudinal study of cyberbullying: Examining risk and protective factors. *European Journal of Developmental Psychology*, 9(2), 168–181. https://doi.org/10.1080/17405629.2011.643169
- Freis, S. D., & Gurung, R. A. R. (2013). A facebook analysis of helping behavior in online bullying. *Psychology of Popular Media Culture*, 2(1), 11–19. https://doi.org/10.1037/a0030239

- García-Martín, M. Á., Hombrados-Mendieta, I., & Gómez-Jacinto, L. (2016). A multidimensional approach to social support: The questionnaire on the frequency of and satisfaction with social support (qfsss). *Anales de Psicología*, 32(2), 501. https://doi.org/10.6018/analesps.32.2.201941
- Geel, M. Van Goemans, A., Toprak, F., & Vedder, P. (2016). Which personality traits are related to traditional bullying and cyberbullying? A study with the big five, dark triad and sadism. *PAID*. https://doi.org/10.1016/j.paid.2016.10.063
- Goodboy, A. K., & Martin, M. M. (2015). The personality profile of a cyberbully: Examining the dark triad. *Computers in Human Behavior*, 49, 1–4. https://doi.org/10.1016/j.chb.2015.02.052
- Handono, S. G., Laeheem, K., & Sittichai, R. (2019). Factors related with cyberbullying among the youth of Jakarta, Indonesia. *Children and Youth Services Review*, 99, 235–239. https://doi.org/10.1016/j.childyouth.2019.02.012
- Hellfeldt, K., López-Romero, L., & Andershed, H. (2020). Cyberbullying and psychological well-being in young adolescence: The potential protective mediation effects of social support from family, friends, and teachers. *International Journal of Environmental Research and Public Health*, 17(1). https://doi.org/10.3390/ijerph17010045
- Hinduja, S., & Patchin, J. W. (2008). Cyberbullying: An exploratory analysis of factors related to offending and victimization. *Deviant Behavior*, 29(2), 129–156. https://doi.org/10.1080/01639620701457816
- Hinduja, S., & Patchin, J. W. (2013). Social influences on cyberbullying behaviors among middle and high school students. *Journal of Youth and Adolescence*, 42(5), 711–722. https://doi.org/10.1007/s10964-012-9902-4
- Jonason, P. K., & Webster, G. D. (2010). The dirty dozen: A concise measure of the dark triad. *Psychological Assessment*, 22(2), 420–432. https://doi.org/10.1037/a0019265
- Jonason, P. K., Jones, A., & Lyons, M. (2013). Creatures of the night: Chronotypes and the Dark Triad traits. *Personality and Individuals Differences*, 1-4. http://dx.doi.org/10.1016/j.paid.2013.05.001
- Jones, D. N., & Paulhus, D. L. (2011). The role of impulsivity in the dark triad of personality. *Personality and Individual Differences*, 51(5), 679–682. https://doi.org/10.1016/j.paid.2011.04.011
- Jones, D. N., & Paulhus, D. L. (2014). Introducing the short dark triad (sd3): A brief measure of dark personality traits. *Assessment*, 21(1), 28–41. https://doi.org/10.1177/1073191113514105
- Jones, D. N., & Figueredo, A. J. (2013). The core of darkness: Uncovering the heart of the dark triad. *European Journal of Personality*, 27(6), 521–531. https://doi.org/10.1002/per.1893
- Kircaburun, K., Jonason, P. K., & Griffiths, M. D. (2018). The dark tetrad traits and problematic social media use: The mediating role of cyberbullying and cyberstalking. *Personality and Individual Differences*, 135, 264–269. https://doi.org/10.1016/j.paid.2018.07.034
- Kowalski, R. M., & Limber, S. P. (2013). Psychological, physical, and academic correlates of cyberbullying and traditional bullying. *Journal of Adolescent Health*, 53(1), S13–S20. https://doi.org/10.1016/j.jadohealth.2012.09.018
- Lapidot-Lefler, N., & Dolev-Cohen, M. (2015). Comparing cyberbullying and school bullying among school students: Prevalence, gender, and grade level differences. *Social Psychology of Education*, 18(1), 1–16. https://doi.org/10.1007/s11218-014-9280-8
- Lee, C., & Shin, N. (2017). Prevalence of cyberbullying and predictors of cyberbullying perpetration among korean adolescents. *Computers in Human Behavior*, 68, 352–358. https://doi.org/10.1016/j.chb.2016.11.047
- Li, C. K. W., Holt, T. J., Bossler, A. M., & May, D. C. (2016). Examining the mediating effects of social learning on the low self-control cyberbullying relationship in a youth sample. *Deviant Behavior*, 37(2), 126–138. https://doi.org/10.1080/01639625.2014.1004023
- Li, Q. (2006). Cyberbullying in schools: A research of gender differences. *School Psychology International*, 27(2), 157–170. https://doi.org/10.1177/0143034306064547

- Lundy, B. L. (2007). Service learning in life-span developmental psychology: Higher exam scores and increased empathy. *Teaching of Psychology*, 34(1), 23–27. https://doi.org/10.1080/00986280709336644
- Lyons, M. (2019). The dark triad of personality: Narcissism, machiavellianism, and psychopathy in everyday life. 36, 1–219. https://doi.org/10.1016/C2017-0-01262-4
- Maples, J. L., Lamkin, J., & Miller, J. D. (2014). A test of two brief measures of the dark triad: The dirty dozen and short dark triad. *Psychological Assessment*, 26(1), 326–331. https://doi.org/10.1037/a0035084
- Miklikowska M. (2017). Development of anti-immigrant attitudes in adolescence: The role of parents, peers, intergroup friendships, and empathy. *British journal of psychology (London, England : 1953)*, 108(3), 626–648. https://doi.org/10.1111/bjop.12236
- Milic Babic, M., & Dowling, M. (2015). Social support, the presence of barriers and ideas for the future from students with disabilities in the higher education system in croatia. *Disability and Society*, 30(4), 614–629. https://doi.org/10.1080/09687599.2015.1037949
- Mulyana, M. (2020). Social media and student online aggression: A case study at madrasah aliyah negeri (man) 2 Bogor City, west java. *EAI*. https://doi.org/10.4108/eai.8-10-2019.2294517
- Nazriani, D., & Zahreni, S. (2017). Adolescent cyberbullying in Indonesia: differentiation between bullies and victim (icosop 2016). *Advances in Social Science, Education and Humanities Research*. 81, 505–508. https://doi.org/10.2991/icosop-16.2017.68
- Oliver, D., Connelly, J. B., Victor, C. R., Shaw, F. E., Whitehead, A., Genc, Y., Vanoli, A., Martin, F. C., & Gosney, M. A. (2007). Strategies to prevent falls and fractures in hospitals and care homes and effect of cognitive impairment: Systematic review and meta-analyses. *BMJ (Clinical research ed.)*, 334(7584), 82. https://doi.org/10.1136/bmj.39049.706493.55
- Park, K. H., Kim, D. H., Kim, S. K., Yi, Y. H., Jeong, J. H., Chae, J., Hwang, J., & Roh, H. R. (2015). The relationships between empathy, stress and social support among medical students. *International Journal of Medical Education*, 6, 103–108. https://doi.org/10.5116/ijme.55e6.0d44
- Patchin, J. W., & Hinduja, S. (2010). Cyberbullying and self-esteem. *Journal of School Health*, 80(12), 614–621. https://doi.org/10.1111/j.1746-1561.2010.00548.x
- Patchin, J. W., & Hinduja, S. (2011). *Traditional and nontraditional bullying among youth: A test of general strain theory*. https://doi.org/10.1177/0044118X10366951
- Peterson, J., & Densley, J. (2017). Cyber violence: What do we know and where do we go from here? *Aggression and Violent Behavior*, 34, 193–200. https://doi.org/10.1016/j.avb.2017.01.012
- Petrides, K. V., Vernon, P. A., Schermer, J. A., & Veselka, L. (2011). Trait emotional intelligence and the dark triad traits of personality. *Twin Research and Human Genetics*, 14(1), 35–41. https://doi.org/10.1375/twin.14.1.35
- Piquero, A. R., MacIntosh, R., & Hickman, M. (2000). Does self-control affect survey response? Applying exploratory, confirmatory, and item response theory analysis to grasmick et al.'s self-control scale. *Criminology*, 38(3), 897–930. https://doi.org/10.1111/j.1745-9125.2000.tb00910.x
- Sakellariou, T., Carroll, A., & Houghton, S. (2012). Rates of cyber victimization and bullying among male australian primary and high school students. *School Psychology International*, 33(5), 533–549. https://doi.org/10.1177/0143034311430374
- Schultze-Krumbholz, A., & Scheithauer, H. (2009). Social-behavioral correlates of cyberbullying in a german student sample. *Zeitschrift für Psychologie/Journal of Psychology*, 217(4), 224–226. https://doi.org/10.1027/0044-3409.217.4.224
- Schultze-Krumbholz, A., Schultze, M., Zagorscak, P., Wölfer, R., & Scheithauer, H. (2016). Feeling cybervictims' pain-rhe effect of empathy training on cyberbullying. *Aggressive behavior*, 42(2), 147–156. https://doi.org/10.1002/ab.21613
- Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing social support: The

- social support questionnaire. *Journal of Personality and Social Psychology*, 44(1), 127–139. https://doi.org/10.1037//0022-3514.44.1.127
- Sarason, I. G., & Sarason, B. R. (2009). Social support: Mapping the construct. *Journal of Social and Personal Relationships*, 26(1), 113–120. https://doi.org/10.1177/0265407509105526
- Slonje, R., & Smith, P. K. (2008). Cyberbullying: Another main type of bullying?. *Scandinavian Journal of Psychology*, 49(2), 147–154. https://doi.org/10.1111/j.1467-9450.2007.00611.x
- Steffgen, G., König, A., Pfetsch, J., & Melzer, A. (2011). Are cyberbullies less empathic? Adolescents' cyberbullying behavior and empathic responsiveness. *Cyberpsychology, Behavior, and Social Networking*, 14(11), 643–648. https://doi.org/10.1089/cyber.2010.0445
- Sticca, F., Ruggieri, S., Alsaker, F., & Perren, S. (2013). Longitudinal risk factors for cyberbullying in adolescence. *Journal of Comunnity & Applied Social Psychology*. 67, 52–67. https://doi.org/10.1002/casp
- Topcu, Ç., & Erdur-Baker, Ö. (2012). Affective and cognitive empathy as mediators of gender differences in cyber and traditional bullying. *School Psychology International*, 33(5), 550–561. https://doi.org/10.1177/0143034312446882
- Tudkuea, T., & Laeheem, K. (2014). Development of indicators of cyberbullying among youths in songkhla province. *Asian Social Science*, 10(14), 74–80. https://doi.org/10.5539/ass.v10n14p74
- Van Lissa, C. J., Hawk, S. T., & Meeus, W. H. J. (2017). The effects of affective and cognitive empathy on adolescents' behavior and outcomes in conflicts with mothers. *Journal of Experimental Child Psychology*, 158, 32–45. https://doi.org/10.1016/j.jecp.2017.01.002
- Vernon, P. A., Villani, V. C., Vickers, L. C., & Harris, J. A. (2008). A behavioral genetic investigation of the dark triad and the big 5. *Personality and Individual Differences*, 44(2), 445–452. https://doi.org/10.1016/j.paid.2007.09.007
- Veselka, L., Giammarco, E. A., & Vernon, P. A. (2014). The dark triad and the seven deadly sins. *Personality and Individual Differences*, 67, 75–80. https://doi.org/10.1016/j.paid.2014.01.055
- Wade, A., & Beran, T. (2011). Cyberbullying: The new era of bullying. *Canadian Journal of School Psychology*, 26(1), 44–61. https://doi.org/10.1177/0829573510396318
- Willard, N. (2007. (2007). Educator's guide to cyberbullying and cyberthreats. Cyberbullying and Cyberthreats: Responding to the Challenge of Online Social Aggression, Threats, and Distress.
- Williams, K. R., & Guerra, N. G. (2007). Prevalence and Predictors of internet bullying. *Journal of Adolescent Health*, 41(6 SUPPL.), 14–21. https://doi.org/10.1016/j.jadohealth.2007.08.018
- Wright, M. F., Huang, Z., Wachs, S., Aoyama, I., Kamble, S., Soudi, S., Li, Z., Lei, L., & Shu, C. (2020). Associations between cyberbullying perpetration and the dark triad of personality traits: The moderating effect of country of origin and gender. *Asia Pacific Journal of Social Work and Development*, 00(00), 242–256. https://doi.org/10.1080/02185385.2020.1788979
- Yuan, G., Liu, Z., & An, Y. (2020). Machiavellianism, mindfulness and cyberbullying among chinese junior high school students: The mediating role of empathy. *Journal of Aggression, Maltreatment and Trauma*, 29(9), 1047–1058. https://doi.org/10.1080/10926771.2019.1667467
- Yubero, S., Ovejero, A., Navarro, R., & Larra, E. (2016). Loneliness, parent-child communication and cyberbullying victimization among spanish youths. *Computers in Human Behavior.* 65, 1–8. https://doi.org/10.1016/j.chb.2016.08.015
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52*(1), 30–41. https://doi.org/10.1207/s15327752jpa5201_2