



The Relationship Between Gender, Age, and Prosocial Behavior in College Students

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Highlights

- There are no significant differences in prosocial behavior based on gender.
- Prosocial behavior is influenced by various factors, including bystanders, attractiveness, victim attribution, role models, time pressure, needs, empathy, mood, gender, and individual traits.
- There is no significant correlation among gender, age, and prosocial behavior in college students.

Abstract

Background: The last events of the pandemic, rapid advancements in technology, the never-ending demands of college student life, and the stress it has caused, may have changed the way the student's tendency to engage in prosocial behavior. Meanwhile, prosocial behavior has proved to increase students' well-being, sense of peace, and happiness, which combat all of that stress. **Study aims:** This study aims examine potential differences in prosocial behavior among college students based on gender and age. **Method:** This research utilizes a quantitative and cross-sectional study. Using convenience sampling, there are 193 participants aged between 19 to 24 years old, consisting of 30 men and 163 women. **Result:** Prosocial Behavior Scale (31 items, $\alpha=0,907$) were used to collect the data, while Mann-Whitney and Kruskal-Wallis were used in the data analysis with the help of SPSS version 22. **Conclusion:** It was found that there is no significant correlation between gender (0.318, $p < 0.05$), age (0.242, $p < 0.05$), and prosocial behavior in college students, this indicates that an individual's decision to engage in the act of helping and benefiting others are not determined by gender and age differences.

Keywords: Prosocial Behavior; Gender; College Students

INTRODUCTION

College students are expected to contribute to the cultivation of their full potential by engaging in a range of activities. Participating in different competitive scenarios and carefully choosing their involvements will undoubtedly enhance their problem-solving abilities. Additionally, academic responsibilities are also important in students' lives. The ultimate goal of every student is to graduate within the designated timeframe while gaining experiences that will support their future. However, college students often face several challenges when it comes to fulfilling their academic obligations. These challenges include a heavy workload with numerous tasks and assignments, a multitude of expectations to meet, difficulties in managing time effectively, and an accumulation of course-related responsibility. According to Barbayannis et al. (2022), these circumstances are likely to result in academic stress among students who struggle to meet these demands.

Self-centered behavior is still prevalent among individuals who regularly engage with others, even in busy metropolitan cities. The abundance and fast-paced nature of stimuli in urban areas can impact prosocial conduct. Observation by Nugraha et al. (2020) shows that students in urban areas engage in selective processes and prioritize the stimuli they encounter, leading to reduced sensitivity towards matters that are unrelated to themselves. This can be seen in student populations, where self-centered behavior becomes apparent in their approach to group assignments. For example, it is quite common to observe instances where students neglect to include a friend who lacks a group or display an unwillingness to share their knowledge and skills. Additionally, when it comes to collaborative work on assigned tasks, they may disregard the agreed-upon time for discussions, leading to obstacles in completing the assignment.

Individuals who face challenges in their daily tasks undoubtedly need support and attention from those in their vicinity. Zhang & Zhao (2020) mentioned that prosocial behavior refers to acts of helping that benefit others without providing immediate benefits to the person performing the helpful action. Engaging in prosocial behavior may even involve certain risks for the individual offering assistance.

During adolescence, one of the crucial developmental tasks is the acquisition of responsible social behavior. According to Luna et al. (2020), social competence encompasses four elements: adaptive behavior, interpersonal behaviors, self-perceived behaviors, and behavior toward homework. Prosocial behavior aligns with the second element, which pertains to how individuals react to the behaviors of others. By demonstrating prosocial behavior, individuals increase their chances of being accepted by their social environment. Carlo and Randall (in Richaud et al., 2012) have identified six categories of prosocial behavior, namely altruistic, compliant, emotional, public, anonymous, and dire prosocial behavior. Prosocial behavior refers to voluntary actions undertaken to benefit others. It encompasses a wide range of actions and intentions aimed at assisting others, regardless of the underlying motives of the helper (Widyastuti, 2014, p. 107).

Despite the prevalent busyness and fast-paced nature of urban environments, there remains a need for compassion and a willingness to engage in acts of assistance. Prosocial behavior plays a vital role in fostering productive coexistence among individuals. Moreover, engaging in prosocial behavior can have positive effects on physical, cognitive, and psychological well-being (Lay & Hoppmann, 2015). Additionally, Wentzel (2015) highlights that prosocial behavior encompasses a wide range of actions such as sharing, cooperating, and aiding one another. It encompasses all forms of voluntary or planned actions that aim to assist others without expecting any form of anything in return.

Based on Brigham (in Dayakisni & Hudaniah, 2015), there are various factors that influence prosocial behavior. These factors can be categorized into situational and internal factors. Situational factors include elements such as bystanders, attractiveness, attributions towards the victim, the presence of role models, time pressure, and the needs of the victim. While internal factors encompass aspects such as mood, personality, gender, place of residence, and parenting styles. Among these factors, parental upbringing is highlighted as a significant influence on shaping an individual's prosocial behavior. It is emphasized that prosocial behavior in children is not inherently developed but acquired through a learning process. Experts further assert that helping behavior does not occur spontaneously but is influenced by various factors, including empathy, mood, prosocial models, attributions regarding victim responsibility, helping people they like, and motivation and morality (Wulandari & Satiningsih, 2018). Additionally, when the environment is crowded with many individuals, the tendency for them to engage in helping behavior decreases. This aligns with the bystander effect theory, which suggests that the likelihood of someone offering assistance diminishes when they are in the presence of others. The presence of a larger number of people correlates with a lower probability of providing aid (Rahmawati & Triningtyas, 2019).

Multiple studies have emphasized the significance of prosocial behavior, especially during the pandemic. Engaging in prosocial behavior helps students steer clear of antisocial and aggressive behaviors while contributing to the development of a positive social environment (Carlo et al., 2014; Ding et al., 2016; Varma et al., 2020). Furthermore, a study has demonstrated a positive association between high emotional intelligence and increased levels of prosocial behavior among students. Additionally, a strong and positive correlation has been observed between emotional intelligence and empathy (Hajibabaei et al., 2018; Noya, 2019; Sembiring et al., 2015).

Prosocial behavior plays a crucial role in socializing individuals within society, enabling them to engage and interact with individuals of diverse personalities. It is considered a defining characteristic of being human (Beatty, 2013, p. 168). A child, as the smallest unit of a family, neighborhood, community, and country, needs to develop prosocial behavior from an early age to become a responsible and functional member of society. Prosocial behavior in children encompasses actions that demonstrate their concern or attention towards others, such as helping, comforting, or simply displaying acts of kindness like smiling (Copeland et al. in Beatty, 2013, p. 169). The display of prosocial behaviors in a child's play environment can serve as an indicator of how they behave within their family setting. It is learned through parenting style rather than spontaneously acquired in children (Hasenfratz & Knafo, 2015). In this case, the family plays an important role in the development of prosocial behavior because the family is the first place where children learn through patterns of observing, imitating, and adopting the attitudes and behaviors shown by their family members. Havighurst (in Huber et al., 2019), highlights the developmental tasks of adolescents, which involve fostering positive social relationships with peers, embracing societal gender roles, and demonstrating socially responsible behavior. Fulfilling these tasks necessitates the development of prosocial behavior among adolescents.

In reality, not all individuals consistently exhibit prosocial behavior. Instead, asocial behavior, characterized by a lack of motivation to engage or interact with others, is often found. The demands of busy daily routines and individual goals tend to prioritize self-interest. It's important to distinguish asocial behavior from antisocial behavior, which involves hostility or disregard for others and societal norms in general. Urban communities frequently undergo notable changes, such as fostering a culture of cooperation to address local issues and actively

participating in community activities. Despite the prevalence of suspicion, prejudice, and egocentrism in society, some individuals selflessly volunteer to help others, known as altruism. This phenomenon has captured the interest of researchers in the social field, as highlighted by Myers (2012).

Based on the above description, societal progress and contemporary circumstances, including the pandemic, technological advancements, and globalization, can potentially impact individuals' inclination toward prosocial behavior. Furthermore, factors like family, friends, and social roles play a role in shaping prosocial behavior. Therefore, the objective of this study is to examine potential differences in prosocial behavior among psychology students at Diponegoro University based on gender and age.

METHOD

Study design

This study uses quantitative and cross-sectional methods and has obtained permission from the Dean of the Faculty with letter number 387/UN7.F11/PP/IX/2022 on September 27, 2022. The data were collected from October 26 to November 10, 2022, as indicated by letter number 338/UN7.F11/PP/XI/2022. The data were collected in the Faculty of Psychology, Diponegoro University.

Participant

There is a total of 193 participants were collected using convenience sampling by contacting the students personally after receiving permission from the dean to conduct research. The participants were aged between 19 to 24 years old and comprised both men ($n=30$) and women ($n=163$). The inclusion criteria required participants to be active psychology college students from classes 2018 and 2019 who have experienced both online and offline learning programs during the pandemic.

Instruments

This study uses a psychological scale as a method of data collection, using the Likert Scale model to measure the attitudes, opinions, or paradigms of individuals or a group of individuals regarding social phenomena. These phenomena will be transformed into indicators and used as the basis for developing items in the form of statements or questions (Sugiyono, 2013). The items' statements are composed of two categories, favorable and unfavorable. The scoring system for favorable items is sequentially from Strongly Agree, Agree, Disagree, and Strongly Disagree is 4-1. Meanwhile, the scoring system for unfavorable items is sequentially from Strongly Agree, Agree, Disagree, and Strongly Disagree is 1-4 (Joshi et al., 2015). The higher total scores represent a higher tendency for college students to engage in Prosocial Behavior Scale (PBS).

PBS ($n=31$, $\alpha=0.907$) was used to measure prosocial behavior in college students and created based on the dimensions of prosocial behavior theory by Brigham which consisted of being cooperative (10 items, e.g., "I remind my friends to encourage them to do their assignments"), helping (7 items, e.g., "I feel compelled to propose a favor to a friend"), being honest (6 items, e.g., "When friends entrusted me to buy goods, I gave them the change with the receipt"), doing charity (8 items, e.g., "I provide financial assistance to friends who are stricken by disaster") (Dayakisni & Hudaniah, 2015).

The validity of the scale was assessed based on expert judgment, while the reliability of the scale was proved by having a reliability coefficient close to 1.00 (Azwar, 2012). The testing of the measuring instrument was conducted to determine the reliability and discrimination of each item in the PBS, carried out from October 5th to 17th, 2022. There were three rounds in the testing process. The initial number of items was 48, and the items were selected by applying a minimum rix of 0.300, resulting in the removal of 17 items. Thus, 31 items were selected for the PBS.

Procedure

If the contacted participants agreed to participate in this research, the students will be sent a Google form link to the PBS to fill. The first page consisted of informed consent, estimated time of completion, and important notice to make sure that the participant's identity provided is correct, to choose the answer that reflects the participant's actual condition, and the data will be kept confidential in accordance to psychological code of ethics. The second page consisted of the participant's identity such as name or initial, class, age, gender, and informed consent to participate in the research. And the last page consisted of instructions to fill out the questionnaire and 31 items of PBS.

Data Analysis

This study aims to examine potential differences in prosocial behavior among college students based on gender and age. The data was analyzed with the help of the Statistical Product and Service Solutions (SPSS) version 22.0.

RESULT

Participant's characteristics

In general, the majority (84.5%) of participants were women, aged between 21 and 22 years. See Table 1 for the participants' characteristics.

Table 1.

The demographic data of participants

Class	Percentage	Gender	Percentage	Age	Percentage
2018	38.3%	Men	15.5%	19-20	40.1%
2019	61.7%	Women	84.5%	21-22	87.5%
				23-24	8.3%

Data analysis

To analyze the data, the researcher conducted normality test, Mann-Whitney test, and Kruskal Wallis test using SPSS version 22. In the normality test, it was found that the distribution of prosocial behavior data is not normal ($p=0.034$). According to Table 2, there is no significant difference found in prosocial behavior between men and women college students.

Table 2.

The demographic data of participants

Gender	n	Mean Rank	U	P
Men	30	87.65	2164.50	0.318
Women	164	98.72		

Notes: Mann-Whitney U-test were applied

While Table 3 shows that there is no significant difference between age and prosocial behavior.

Table 3.*Differences in prosocial behavior based on age*

Age	n	Mean Rank	P (<0.05)
19	1	100.50	0.242
20	7	84.79	
21	84	106.78	
22	85	93.14	
23	15	71.54	
24	2	69.50	

Notes: Kruskal Wallis test were applied

Based on the categorization of prosocial behavior scores using interval formulas, there were 0% of students with very low or low levels of prosocial behavior, 5% (10 students) had moderate levels of prosocial behavior, 31% (60 students) had high levels of prosocial behavior, and 64% (123 students) had very high levels of prosocial behavior, indicating that the majority of the subjects had a very high level of prosocial behavior (64%). Thus, the majority of subjects have a very high level of prosocial behavior (64%).

DISCUSSION

This study's aim is to examine potential differences in prosocial behavior among college students based on gender and age. The initial data collection of the study shows that the most common prosocial behavior performed by the students are helping strangers, helping friends in need, and reminding friends who are at fault. Empirically, students in the psychology department at the university are actively engaged in Student Activity Units (UKM) that promote prosocial behavior. These activities include blood donation drives, clothing drives for donation, volunteering, visitation to orphanages, and distributing free groceries to the community. Some male students exhibit high levels of prosocial behavior and active participation, while others are less involved. The same applies to female students, with varying levels of prosocial behavior. According to Eisenberg and Mussen (in Dayakisni & Hudaniah, 2015) prosocial behavior involves voluntary actions aimed at helping and benefiting others, encompassing sharing, cooperation, donating, helping, honesty, and generosity. Such behavior is commonly observed in daily life and is also taught in moral education.

The majority of participants in the study exhibited a high level of prosocial behavior (64%), and the findings revealed no significant differences in prosocial behavior based on gender and age. These results align with previous studies conducted by Abdullahi & Kumar (2016) and Lamboan (2019). The absence of gender differences in prosocial behavior can be explained by the research of Olsson et al. (2021), which suggests that gender differences in perpetrators and recipients of prosocial behavior are dynamic and contextual. It was found that women will carry out greater prosocial behavior when the recipient is a man, and conversely, men will carry out greater prosocial behavior when the recipient is a woman. Gender is one of the individual characteristics that can influence prosocial behavior toward others. Bale and Epperson (2016) explains that sex is related to chromosomes and hormones produced by human bodies, thus the male's ability to produce sperm and the female's ability to produce eggs. Biologically, females have the capacity for menstruation, pregnancy, and breastfeeding. Prosocial behavior is not spontaneous but is influenced by various factors including bystanders, empathy, helping intention, prosocial reasoning, peer pressure, peer influence, parental influence, school influence, and individual traits (Fadilah & Ansyah, 2022; Lai et al., 2015; Oberle et al., 2022). Zahn-Waxler and Smith (in Renata & Parmitasari, 2016) research indicates that girls tend to display more prosocial

behavior and empathy towards others compared to boys. Girls show a greater orientation towards the needs and well-being of others, this may be influenced by factors such as estrogen hormone in females, which fosters concern for the environment (Suhardin, 2016). Conversely, males, influenced by testosterone hormone, exhibit characteristics such as courageous, enjoy challenges and competition, and engage in the exchange of ideas and concepts (Amin, 2018).

College students, as agents of change, can promote positive values in their environment. Within the age range of 18-22, considered late adolescence, they are tasked with developing intellectual concepts and skills necessary for societal roles. Consequently, students must cultivate prosocial behavior in their communities (Guo, 2017). The study revealed no significant differences in prosocial behavior between genders and across different age groups. This suggests that the prevailing societal conditions have played a role in shaping prosocial behavior among individuals. For instance, globalization and advancements in technology have enabled people to be more aware of events and humanitarian issues worldwide, fostering a global perspective. As a result, fundraising and contributions can now extend beyond local boundaries. The internet provides individuals with access to a wide range of media content that exposes them to various aspects of life, including events that highlight humanitarian values, education, knowledge, art, and culture. Engaging with educational content enables individuals to learn about important positive behaviors, such as prosocial behavior. However, cultivating empathy is crucial for the full development of prosocial behavior. Empathy, as described by Riess (2017), involves experiencing sympathy and concern for others, allowing individuals to understand and share in the suffering of others. Possessing empathy can motivate individuals to help those in need. Dawson et al. (2021) explained that empathy forms the foundation of morality as it directs individuals' attention to potential victims or those who deserve assistance. Additionally, having the ability to empathize allows individuals to understand others' perspectives and embrace specific moral principles.

The difference between this study and previous studies lies in the difference in subjects and the environmental conditions of the subjects. Some studies used medical students as subjects and only placed the environmental condition of the subjects in one of two conditions, namely before or after the pandemic. Meanwhile, this study uses subjects who have experienced learning systems before and after the pandemic. This criterion is by the condition of the 2018 and 2019 student cohorts, where these students have undergone learning before the pandemic (in-person) and after the pandemic (online).

CONCLUSION

In conclusion, this study examined the potential differences in prosocial behavior among college students based on gender and age. The results revealed that the majority of participants displayed a high level of prosocial behavior, and no significant variations were found based on gender or age. These findings support previous research indicating that societal conditions and individual traits have a stronger influence on prosocial behavior than gender or age alone. Developing empathy is crucial for fostering prosocial behavior, as it enables individuals to understand and empathize with others' suffering. College students, as agents of change, play a vital role in promoting positive values in their environment and upholding prosocial behavior in their communities. The study highlights the impact of globalization and technology, which have enabled individuals to be more aware of global events and humanitarian issues, fostering a broader perspective on prosocial behavior. However, further research is needed to explore the specific factors that influence prosocial behavior in different contexts and populations.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interests.

REFERENCE

- Abdullahi, I. A., & Kumar, P. (2016). Gender differences in prosocial behavior. *The International Journal of Indian Psychology*, 3(4), 171-175. <http://dx.doi.org/10.25215/0304.017>
- Amin, M. S. (2018). Perbedaan struktur otak dan perilaku belajar antara pria dan wanita; Eksplanasi dalam sudut pandang neuro sains dan filsafat. *Jurnal Filsafat Indonesia*, 1(1), 38-43.
- Azwar, S. (2012). *Penyusunan Skala Psikologi* 2nd Edition. Pustaka Belajar.
- Barbayannis, G., Bandari, M., Zheng, X., Baquerizo, H., Pecor, K. W., & Ming, X. (2022). Academic stress and mental health in college students: Correlations, affected groups, and covid-19. *Frontiers in. Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.886344>
- Bale, T. L., & Epperson, C. N. (2016). Sex as a biological variable: Who, what, when, why, and how. *Neuropsychopharmacology*, 42(2), 386-396. <https://doi.org/10.1038/npp.2016.215>
- Beaty, J. J. (2013). *Observasi Perkembangan Anak Usia Dini*. Kencana Pranadamedia Group.
- Carlo, G., Mestre, M. V., McGinley, M. M., Tur-Porcar, A., Samper, P., & Opal, D. (2014). The protective role of prosocial behaviors on antisocial behaviors: The mediating effects of deviant peer affiliation. *Journal of Adolescence*, 37(4), 359-366. <https://doi.org/10.1016/j.adolescence.2014.02.009>
- Dawson, K. J., Han, H., & Choi, Y. R. (2021). How are moral foundations associated with empathic traits and moral identity?. *Current Psychology*, 42, 10836-10848. <https://doi.org/10.1007/s12144-021-02372-5>
- Dayakisni & Hudaniah. (2015). *Psikologi Sosial*. University of Muhammadiyah Malang Press.
- Ding, R., Zhou, H., Zhang, B., & Chen, X. (2016). Narcissism and adolescents' prosocial behaviors: The role of public and private situations. *Acta Psychologica Sinica*, 8, 981-988. <http://dx.doi.org/10.3724/SP.J.1041.2016.00981>
- Fadilah, I. N., & Ansyah, E. H. (2022). The relationship between the bystander effect and prosocial behavior in students of the Faculty of Psychology and Educational Sciences at university. *Academia Open*, 7. <https://doi.org/10.21070/ACOPEN.7.2022.5196>
- Guo, Y. (2017). The influence of social support on the prosocial behavior of college students: The mediating effect based on interpersonal trust. *English Language Teaching*, 10(12), 158-163. <http://doi.org/10.5539/elt.v10n12p158>
- Hajibabae, F., Farahani, M. A., Ameri, Z., Salehi, T., & Hosseini, A. F. (2018). The relationship between empathy and emotional intelligence among Iranian nursing students. *International Journal of Medical Education*, 9, 239-243. <https://dx.doi.org/10.5116/ijme.5b83.e2a5>
- Hasenfratz, L., & Knafo, A. (2015). Prosocial behavior, effects of parenting and family structure on. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 244-249). Elsevier.
- Huber, L., Plöner, M., & Schmitz, J. (2019). Behavioral observation of prosocial behavior and social initiative is related to preschoolers' psychological symptoms. *PLoS One*, 14(11). Article e0225274. <https://doi.org/10.1371/journal.pone.0225274>
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, 7(4), 396-403. <https://doi.org/10.9734/BJAST/2015/14975>
- Lai, F. H. Y., Siu, A. M. H., & Shek, D. T. L. (2015). Individual and social predictors of prosocial behavior among Chinese adolescents in Hong Kong. *Frontiers in Pediatrics*, 3(39). <https://doi.org/10.3389/fped.2015.00039>
- Lamboan, J. A. E. (2019). Perbedaan perilaku prososial ditinjau dari jenis kelamin. *Jurnal Psikologi Perseptual*, 4(2), 80-90. <https://doi.org/10.24176/perseptual.v4i2.3393>
- Lay, J. C., & Hoppmann, C. A. (2015). Altruism and prosocial behavior. *Encyclopedia of Geropsychology*. https://doi.org/10.1007/978-981-287-080-3_69-1
- Luna, Guerrero, Rodrigo-Ruiz, Losada, & Cejudo. (2020). Social competence and peer social acceptance: Evaluating effects of an educational intervention in adolescents. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01305>
- Myers, D. G. (2012). *Exploring Social Psychology* (6th ed.). McGraw.
- Noya, A. (2019). Hubungan kecerdasan emosi dan perilaku prososial siswa di SMA Negeri 9 Halmahera Selatan. *Jurnal Penelitian dan Pengembangan Pendidikan*, 2(1), 28-34.

- Nugraha, D. Y., Scholten, A. R., & Daud, M. (2020). The prosocial behavior of college students at the City Park in Makassar. *Advances in Social Science, Education and Humanities Research*, 481, 174-178.
- Oberle, E., Ji, X. R., & Molyneux, T. M. (2022). Pathways from prosocial behavior to emotional health and academic achievement in early adolescence. *The Journal of Early Adolescence*, 43(5). <https://doi.org/10.1177/02724316221113349>
- Olsson, M. I. T., Froehlich, L., Dorrough, A. R., & Martiny, S. E. (2021). The hers and his of prosociality across 10 countries. *British Journal of Social Psychology*, 60(4), 1330-1349. <https://doi.org/10.1111/bjso.12454>
- Rahmawati, N. K. D., & Triningtyas, D. A. (2019). Perilaku prososial ditinjau dari presentasi diri dan bystander effect. *Prosiding SNBK (Seminar Nasional Bimbingan dan Konseling)*, 3(1), 119-123.
- Renata, S., & Parmitasari, L. N. (2016). Perilaku prososial pada mahasiswa ditinjau dari jenis kelamin dan tipe kepribadian. *Psikodimensia*, 15(1), 24-39.
- Richaud, M. C., Mesurado, B., & Cortada, A. K. (2012). Analysis of dimensions of prosocial behavior in an Argentinean sample of children. *Psychological Reports: Mental & Physical Health*, 113(3), 3-10.
- Riess, H. (2017). The science of empathy. *Journal of Patient Experience*, 4(2), 74-77. <https://doi.org/10.1177/2374373517699267>
- Sembiring, M., Milfayetty, S., & Siregar, N. I. (2015). Hubungan kecerdasan emosi dan kecerdasan spiritual dengan perilaku prososial mahasiswa calon katekis. *Jurnal Magister Psikologi UMA*, 7(1), 1-11.
- Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Suhardin, S. (2016). Pengaruh perbedaan jenis kelamin dan pengetahuan tentang konsep dasar ekologi terhadap kepedulian lingkungan. *EDUKASI: Jurnal Penelitian Pendidikan Agama dan Keagamaan*, 14(1). <https://doi.org/10.32729/edukasi.v14i1.15>
- Varma, M. M., Chen, D., Lin, X., Akin, L., & Hu, X. (2020, August 12). Prosocial behavior promotes positive emotion during the COVID-19 pandemic. <https://doi.org/10.31234/osf.io/vdw2e>
- Wentzel K. (2015, May). Prosocial Behaviour and Schooling. In R. E. Tremblay, M. Boivin, R. Peters, (Eds.) *A. Knafo-Noam, Encyclopedia on Early Childhood Development* (pp. 1-7).
- Widyastuti, Y. (2014). *Psikologi Sosial*. Graha Ilmu.
- Wulandari, E., & Satiningsih. (2018). Faktor-faktor yang mempengaruhi perilaku prososial pada siswa kelas XI di MAN 1 Tuban. *Jurnal Penelitian Psikologi*, 5(3), 1-6.
- Zhang, H., & Zhao, H. (2020). Influence of urban residents' life satisfaction on prosocial behavior intentions in the community: A multiple mediation model. *Journal of Community Psychology*, 49(2), 406-418. <https://doi.org/10.1002/jcop.22467>