



The Relationship Between Peer Support and the Incidence and Dimensions of Burnout Among Medical Students

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ABSTRACT

Introduction: Burnout is a psychological condition characterized by chronic stress that persists over a long period as a response to ongoing stressors. Burnout can lead to decreased academic performance, increased risk of dropout, and even suicide. Peer support may enhance self-confidence, reduce social pressure, and provide emotional stability, ultimately helping reduce the risk of burnout.

Objective: This study examines the relationship between peer support and burnout among medical students at Sultan Ageng Tirtayasa University (Untirta).

Methods: The research design employed was a cross-sectional design, utilizing the simple random sampling technique for data collection. The subjects were preclinical medical students from the 2021, 2022, 2023, and 2024 cohorts. Sampling was conducted using a simple random sampling technique. Data on peer support were collected using the Social Provision Scale (SPS), while burnout data were obtained through the Maslach Burnout Inventory–Student Survey (MBI-SS). The data were analyzed using univariate and bivariate analyses.

Results: The results showed that the prevalence of burnout among students was 14.6%. Based on the dimensions of burnout, the majority of students reported high levels of exhaustion (58.4%), moderate levels of cynicism (47.2%), and low efficacy (100%). Regarding peer support, 96.6% of students reported high levels of peer support. Fisher's exact test yielded a p-value of 0.381.

Conclusions: This study concludes that there is no significant relationship between peer support and burnout among medical students at the University.

Introduction

Burnout is a psychological condition characterized by chronic stress that persists over a prolonged period in response to various stressors (Maslach & Leiter, 2016). This condition can affect anyone, including university students. Academic demands, pressure, and heavy responsibilities often mark student life. These demands,

combined with expectations from oneself and others, become significant sources of stress that may lead to burnout (Hwang & Kim, 2022). Burnout resulting from prolonged academic pressure can lead to physical and mental exhaustion, decreased motivation for learning activities, and a detachment from the surrounding

environment and academic tasks (Fariborz et al., 2019).

Medical students, in particular, show a relatively high prevalence of burnout. A meta-analysis by Frajerman et al. (2019) covering 24 studies reported a global burnout prevalence of 44.2% among medical students. Another study by Chin et al. (2016) in Malaysia found that the prevalence of burnout increased with academic year progression, from 63.5% in the first year to 73.1% in the fourth year. In Indonesia, Simatupang & Widjaja (2021) reported that 62.1% of medical students at Tanumanegara University experienced burnout, while at Syarif Hidayatullah State Islamic University Jakarta, the prevalence was 11%. Despite the variations in prevalence rates, burnout remains a serious issue as it can reduce academic performance and negatively impact students' mental health in the long term (Linnenbrink & Pintrich, 2002). Burnout may even lead to a higher risk of college dropout (Arlinkasari & Akmal, 2017) and contribute to the development of depression, substance abuse, and suicidal ideation (Amir et al., 2018).

One of the factors that plays a role in preventing or reducing burnout is peer support. Students in the developmental phase of emerging adulthood spend a significant amount of time with their peers (Santrock, 2011). Support from fellow

students includes academic assistance, emotional support, companionship, and sharing experiences (Hidayah, 2018). Positive peer relationships can provide a sense of acceptance, emotional closeness, and a safe space for openness (Astuti et al., 2024). Peer support is believed to enhance self-confidence, reduce pressure, and provide emotional stability in facing academic burdens, thereby playing a role in lowering burnout levels. This is supported by studies from Rozsy (2018) at the University of Jember and Puspitasari & Sholihah (2022) at the Annuriyah Islamic Boarding School, who both found a significant negative relationship between peer support and burnout. Conversely, a study by Ali et al. (2018) in Pakistan found no significant relationship, while research by Bai et al. (2020) showed that negative peer interactions could lead to increased burnout. These findings indicate inconsistencies that warrant further investigation.

Based on this background, the present study examines the relationship between peer support and burnout among medical students. The findings are expected to contribute to burnout prevention efforts and inform educational institutions in designing effective social support strategies.

Methods

This quantitative study uses a cross-sectional approach involving 89 active preclinical medical students from the 2021, 2022, 2023, and 2024 cohorts at Sultan Ageng Tirtayasa University. The sampling technique used was simple random sampling from a population of 93 students. The inclusion criteria were active medical program students at Sultan Ageng Tirtayasa University. In contrast, the exclusion criteria included students who did not complete the questionnaire, those who had been medically diagnosed with psychological disorders, and students who were currently taking sedative medications.

The instrument used to measure burnout was the Maslach Burnout Inventory–Student Survey (MBI-SS), developed by Schaufeli et al. (2002), which consists of 15 items covering exhaustion, cynicism, and efficacy. The scale was a 7-point Likert scale, ranging from 0 (never) to 6 (every day). Respondents were categorized as experiencing burnout if they had a score of >14 on exhaustion, >6 on cynicism, and ≤ 22 on efficacy, based on criteria by Schaufeli et al. (2002). The researcher used the Indonesian-translated version of the MBI-SS by Maharani (2019), demonstrating validity values ranging from 0.478 to 0.870 and a reliability coefficient of 0.932.

Meanwhile, peer support was measured using the Social Provision Scale (SPS)

developed by Cutrona & Russell (1987). The researcher utilized the version translated into Indonesian by Inayah (2015), which has been proven to possess acceptable validity and reliability levels. This instrument comprises 29 items, including 18 positive and 11 negative statements, covering six support components. The scale uses a 4-point Likert format, namely: (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree. The results were categorized as high peer support if the total score was ≥ 72.5 and low peer support if the score was < 72.5 .

Data were analyzed using univariate analysis to examine the frequency distribution of respondent characteristics and key variables, and bivariate analysis using Fisher's exact test to determine the relationship between peer support and burnout levels.

Results and Discussion

Of the 174 medical students, 89 met the inclusion criteria and were included in this study. The questionnaires were distributed online via Google Forms, which were shared by student representatives of each cohort through their respective group chats.

Table 1. shows that most respondents were female, with the number of female students being approximately three times higher than that of male students. Regarding year of study, the most significant

proportion of respondents came from the 2021 cohort, with 28 students (31.5%). Furthermore, Table 2 indicates that most students (96.6%) reported high peer support.

Subsequently, Table 3 reveals that most respondents (85.4%) did not experience burnout. Lastly, Table 4 presents the distribution across the three dimensions of burnout, showing that most respondents experienced a high level of exhaustion (58.4%), a moderate level of cynicism

(47.2%), and a low level of efficacy (100%).

In Table 5, a statistical test was conducted using the Chi-square test to examine the relationship between two variables, namely peer support and burnout. However, the assumptions for the Chi-square test were not met; therefore, Fisher's Exact Test was used as an alternative. Based on Fisher's Exact Test, a p-value of 0.381 was obtained. This result indicates no significant relationship between peer support and the incidence of burnout.

Table 1. Demographic Characteristics of Respondents

Characteristics	n	%
Gender		
Female	66	74.2%
Male	23	25.8%
Year of Study		
2021	28	31.5%
2022	27	30.3%
2023	15	16.9%
2024	19	21.3%

Table 2. Overview of Peer Support

Peer Support	n	%
High	86	96.6%
Low	3	3.4%

Table 3. Overview of Burnout

Burnout	n	%
Yes	13	14.6%
No	76	85.4%

Table 4. The Distribution of Burnout Dimensions

Burnout Dimensions	n	%
<i>Exhaustion</i>		
High	52	58.4%
Moderate	16	18%
Low	21	23.6%
<i>Cynicism</i>		
High	16	18%
Moderate	42	47.2%
Low	31	34.8%
<i>Efficacy</i>		
High	0	0%
Moderate	0	0%
Low	89	100%

Table 5. The Relationship Between Peer Support and the Incidence of Burnout

		Burnout		Total	P value
		Yes	No		
Peer Support	Low	1 (33,3%)	2 (66,7%)	3 (100%)	0.381
	High	12 (14%)	74 (86%)	86 (100%)	
Total		13 (14,6%)	76 (85,4%)	89 (100%)	

Based on the research findings, the prevalence of burnout among medical students at Sultan Ageng Tirtayasa University was 14.6%, after combining the three dimensions of burnout. This result is comparable to the study conducted by Silva et al. (2022), which reported a burnout prevalence of 12.2% among medical students in Brazil. The similarity in findings may be attributed to the comparable characteristics of the respondents, pre-clinical medical students from semesters 1 to 8, and the use of the same measurement instrument, the Maslach Burnout Inventory–Student Survey (MBI-SS).

The relatively low prevalence of burnout among Sultan Ageng Tirtayasa University students may be attributed to the fact that the respondents were still in the pre-clinical phase and had not yet been exposed to the pressures of the clinical stage or internship (co-assistantship), which typically involves a heavier workload. This aligns with the opinion of Maslach & Leiter (2016), who stated that workload is one of the primary triggers of burnout. Additionally, it is possible that students experienced academic stress but were able to employ effective coping strategies, thereby preventing the

stress from escalating into complete burnout (De Hert, 2020).

In contrast, a meta-analysis conducted by Frajerman et al. (2019), which analyzed 24 studies among medical students worldwide, reported a significantly higher prevalence of burnout at 44.2% [CI: 33.4–55.0]. This discrepancy may be due to the larger sample size and the use of different measurement tools, such as the Maslach Burnout Inventory (MBI) and the Copenhagen Burnout Inventory (CBI).

Several key factors contribute to burnout among medical students, including a demanding curriculum, academic competition, exam-related stress, and high educational costs. The management style of the educational institution can also influence students' stress levels (Frajerman et al., 2019). Furthermore, active learning strategies such as Problem-Based Learning (PBL) may contribute to burnout, especially when implemented without clear curricular guidance or educator expectations (Boni et al., 2018). It is essential to recognize that burnout is a multifaceted condition, and each individual may experience and respond to it differently (Azeez et al., 2024).

Moreover, this study found that 58.4% of students experienced high levels of exhaustion. This may be due to intense academic demands and insufficient rest. This finding is consistent with a study by Almaki et al. (2017) in Saudi Arabia, which

reported a high exhaustion rate of 58.6%, attributed to intense competition during medical school admissions and residency placements. High levels of exhaustion can negatively impact the learning process, reduce the quality of healthcare services, increase the risk of medical errors, and decrease empathy towards patients.

A longitudinal study by Kachel et al. (2020) revealed an increase in cynicism among medical students. This condition is associated with high academic pressure, a lack of social support, hierarchical educational structures, and a hidden curriculum that emphasizes performative rather than collaborative values. In the present study, most students exhibited a moderate level of cynicism, accounting for 47.2%. Meanwhile, a survey by Putri et al. (2021) on medical students in Mataram found a high level of cynicism (56.3%), which may be attributed to the intense and demanding daily academic workload faced by medical students.

In such circumstances, cynicism may emerge as a self-protective mechanism to reduce stress by creating emotional distance or psychological withdrawal from the learning environment (Maslach & Leiter, 2016). One manifestation of cynical attitudes can be observed in academic disengagement, where students perceive assignments as formalities. As a result, they tend to procrastinate on completing tasks

until close to the deadline due to poor time management and a lack of emotional engagement and perceived meaning in the learning process itself.

In this study, the prevalence of low efficacy was 100%. This finding is consistent with studies by Santoso (2022) and Budiman et al. (2024) in Indonesia, which reported low efficacy rates of 97.8% and 97.4%, respectively. The high prevalence of low efficacy in this study may be attributed to the continuous academic pressure and high expectations that medical students face. These findings align with Khosravi's (2023) study, which stated that failure to meet idealistic expectations during medical education can trigger psychological distress and reduce self-efficacy. The study explains that many students who enter medical school are strongly motivated to become ideal doctors. However, the learning process proves to be highly demanding, competitive, and exhausting. When the efforts made do not align with the outcomes achieved, students may develop feelings of failure, incompetence, and low productivity.

Furthermore, this study found that most respondents perceived high levels of peer support, with 96.6% categorized as having high peer support. This high percentage indicates that medical students at Sultan Ageng Tirtayasa University perceive strong peer support in coping with complex

academic pressures. Peer support, including emotional, informational, and instrumental support, can arise from close social relationships within the campus environment. Research by Sulistiawijaya (2023) noted that similar learning environments encourage the development of close friendships among students. As students adjust, they tend to form friendships based on shared values, goals, and backgrounds, which strengthens their perception of peer support (Sawiji et al., 2022).

However, the very high proportion of students who reported high levels of peer support (96.6%) may indicate a potential ceiling effect. This occurs when the lack of variability in responses on the independent variable restricts the statistical ability to detect significant relationships. The consistency in perceived peer support could also be shaped by tendencies toward socially desirable responses or by cultural norms that prioritize collectivism and interpersonal harmony. These factors could have led students to report more positively on self-report measures, masking actual differences in peer support levels.

Several factors may explain the high level of peer support among medical students at Sultan Ageng Tirtayasa University. The relatively small number of students per cohort, approximately 50 individuals, allows for more intensive

interaction and closer peer relationships. In addition, learning methods such as Small Group Discussions also contribute to strengthening student relationships, as these methods encourage students to interact and discuss academic material and other topics (Sasmita & Rustika, 2015). Outside academic activities, student involvement in organizations provides further opportunities to build social networks and strengthen peer relationships. Furthermore, the perception of social support is known to be influenced by the size, closeness, and frequency of interaction within an individual's social network (Sarafino & Smith, 2011). Thus, the more frequent and meaningful student interactions, the greater the likelihood of forming strong peer support.

Fisher's exact test analysis found that peer support did not have a significant relationship with burnout among medical students ($p\text{-value} > 0.05$). This result suggests that the level of peer social support received does not directly influence students' tendency to experience burnout.

This finding may also be interpreted through the transactional model of stress and coping, as proposed by Lazarus and Folkman (1986), which conceptualizes stress as the result of an individual's cognitive appraisal of stressors and the coping strategies they employ. Even when peer support is present, it may not reduce burnout if students appraise academic

demands as overwhelming and rely more on internal coping mechanisms than on external support. This finding aligns with research by Apriliani (2023), which reported that peer support did not have a significant effect on burnout among university students. One possible explanation is that peer relationships may be more superficial and lack strong emotional bonds. Similarly, Najiha et al. (2023) found that peer support had no significant association with stress among medical students. These findings suggest that despite the availability of peer support, students may still experience high academic pressure, which is more strongly influenced by other factors such as academic competition or lack of support from other sources like family or faculty (Hidayat & Darmawanti, 2022).

In addition, research by Räisänen et al. (2020) indicated that peer support is not always the primary protective factor in reducing burnout. Burnout is more strongly influenced by individual factors such as self-regulation or psychological resilience. Medical students tend to rely more on independent study strategies and personal coping mechanisms to manage academic stress, rather than seeking peer support. This may be due to intense academic competition, the perception that others are also struggling with similar pressures, or concerns about appearing weak when

relying on others (Posselt & Lipson, 2016). Consequently, although peer support is available, not all students use it optimally as a coping resource for managing burnout.

Moreover, the quality of peer support may also influence these findings. Although students may report receiving peer support quantitatively, such support may not be functional or effective in alleviating academic stress (Hefner & Eisenberg, 2009). For example, if peers are also experiencing high levels of stress or burnout, they may be unable to provide adequate emotional or practical support.

On the other hand, social support may not always be perceived as helpful, particularly when the type of support does not match the individual's needs. For instance, a person may need emotional support but instead receives instrumental support, or vice versa, resulting in the assistance being perceived as ineffective or even psychologically burdensome (Sarafino & Smith, 2011). In the context of medical students, individuals may prefer to seek support from authority figures such as lecturers, mentors, or family members, who are perceived as more capable of providing relevant guidance or solutions (Kim et al., 2018). Therefore, peer support may not be the primary source students rely on when facing the heavy demands of medical education.

This study has several limitations. First, it employed a cross-sectional design, which does not allow for causal inference; only associative relationships can be analyzed. Second, the sample was limited to pre-clinical medical students at Sultan Ageng Tirtayasa University.

Conclusion

The analysis indicated no significant relationship between peer support and burnout. Nevertheless, implementing interventions to address burnout remains essential. It is recommended that institutions implement confidential academic and psychological support services, provide stress management training for both students and educators, and create a healthy, supportive learning environment to reduce the risk of burnout. Future research is advised with a broader sample, including students in the clinical phase, to gain a more comprehensive understanding of the issue.

References

- Ali, M., Liaqat, A., Sethi, M. R., & Irfan, M. (2018). Effect of social support on burnout in medical students. *Journal of Postgraduate Medical Institute*, 32(3), 266–270.
- Almalki, S. A., Almojali, A. I., Allothman, A. S., Masuadi, E. M., & Alaqueel, M. K. (2017). Burnout and its association with

- extracurricular activities among medical students in Saudi Arabia. *International Journal of Medical Education*, 8, 144–150.
<https://doi.org/10.5116/ijme.58e3.ca8a>
- Amir, M., Dahye, K., Duane, C., & Wendy L, W. (2018). Medical Student and Resident Burnout: A Review of Causes, Effects, and Prevention. *Journal of Family Medicine and Disease Prevention*, 4(4).
<https://doi.org/10.23937/2469-5793/1510094>
- Apriliani, A. (2023). Pengaruh resiliensi, sabar dan peer support terhadap academic burnout pada mahasiswa semester akhir.
- Arlinkasari, F., & Akmal, S. Z. (2017). Hubungan antara School Engagement, Academic Self-Efficacy dan Academic Burnout pada Mahasiswa. *Humanitas (Jurnal Psikologi)*, 1(2), 81.
<https://doi.org/10.28932/humanitas.v1i2.418>
- Astuti, F., Sapriya, & Jupri. (2024). Peran Teman Sebaya Dalam Mengembangkan Kecerdasan Sosial Peserta Didik (Studi Deskriptif Kualitatif di Kelas VII D SMP Negeri 29 Bandung). *Jurnal Ilmiah Wahana Pendidikan*, 10(6), 369–379.
- Azeez, F. K., Khan, M., Almalki, M., Mehmood, A., & Shanawaz, M. (2024). Prevalence of burnout syndrome and coping factors among the staff of emergency department at the hospitals of Jazan, Saudi Arabia. *Signa Vitae*, 20(11), 82–90.
<https://doi.org/10.22514/sv.2024.148>
- Bai, Q., Liu, S., & Kishimoto, T. (2020). School Incivility and Academic Burnout: The Mediating Role of Perceived Peer Support and the Moderating Role of Future Academic Self-Salience. *Frontiers in Psychology*, 10.
<https://doi.org/10.3389/fpsyg.2019.03016>
- Boni, R. A. dos S., Paiva, C. E., de Oliveira, M. A., Lucchetti, G., Fregnani, J. H. T. G., & Paiva, B. S. R. (2018). Burnout among medical students during the first years of undergraduate school: Prevalence and associated factors. *PLOS ONE*, 13(3), e0191746.
<https://doi.org/10.1371/journal.pone.0191746>
- Budiman, M. R., Syah, M. N., Rachmadhiani, I. D., & Rohmawaty, E. (2024). Prevalensi Burnout dan Faktor yang Berasosiasi dengan Burnout Pada Mahasiswa Kedokteran UNPAS. *Journal Of Social Science Research*, 4(3), 11469–11482.
- Chin, R. W. A., Chua, Y. Y., Chu, M. N., Mahadi, N. F., Yusoff, M. S. B., Wong, M. S., & Lee, Y. Y. (2016). Prevalence of Burnout among Medical Students at Universiti Sains Malaysia. *Education in*

- Medicine Journal, 8(3).
<https://doi.org/10.5959/eimj.v8i3.454>
- De Hert, S. (2020). Burnout in Healthcare Workers: Prevalence, Impact and Preventive Strategies. *Local and Regional Anesthesia*, Volume 13, 171–183.
<https://doi.org/10.2147/LRA.S240564>
- Fariborz, N., Hadi, J., & Ali, T. N. (2019). Students' academic stress, stress response and academic burnout: Mediating role of self-efficacy. *Pertanika Journal of Social Sciences and Humanities*, 27(4), 2441–2454.
- Folkman, S., & Lazarus, R. S. (1986). Stress processes and depressive symptomatology. *Journal of Abnormal Psychology*, 95(2), 107.
- Frajerman, A., Morvan, Y., Krebs, M.-O., Gorwood, P., & Chaumette, B. (2019). Burnout in medical students before residency: A systematic review and meta-analysis. *European Psychiatry*, 55, 36–42.
<https://doi.org/10.1016/j.eurpsy.2018.08.006>
- Hefner, J., & Eisenberg, D. (2009). Social support and mental health among college students. *American Journal of Orthopsychiatry*, 79(4), 491–499.
<https://doi.org/10.1037/a0016918>
- Hidayah, M. (2018). Hubungan Dukungan Teman Sebaya dan Stres Akademik pada Siswa SMA Boarding School.
- Hidayat, E., & Darmawanti, I. (2022). Hubungan antara Dukungan Sosial dengan Stres Akademik pada Mahasiswa di Masa Pandemi Covid-19. *Character: Jurnal Penelitian Psikologi*, 8(9).
- Hwang, E., & Kim, J. (2022). Factors Affecting Academic Burnout in Nursing Students According to Clinical Practice Experience. *BMC Medical Education*, 22(1), 346.
<https://doi.org/10.1186/s12909-022-03422-7>
- Kachel, T., Huber, A., Strecker, C., Höge, T., & Höfer, S. (2020). Development of Cynicism in Medical Students: Exploring the Role of Signature Character Strengths and Well-Being. *Frontiers in Psychology*, 11.
<https://doi.org/10.3389/fpsyg.2020.00328>
- Khosravi, M. (2023). Factors affecting medical students' academic burnout: a moderation analysis. *Italian Journal of Medicine*, 17(3).
<https://doi.org/10.4081/itjm.2023.1659>
- Kim, B., Jee, S., Lee, J., An, S., & Lee, S. M. (2018). Relationships between social support and student burnout: A meta-analytic approach. *Stress and Health*, 34(1), 127–134.
<https://doi.org/10.1002/smi.2771>
- Linnenbrink, E. A., & Pintrich, P. R. (2002). Motivation as an enabler for

- academic success. *School Psychology Review*, 31(3), 313–327.
- Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111.
<https://doi.org/10.1002/wps.20311>
- Najiha, A., Khairiah, S., Noor, M. S., Noorsifa, & Fujiati. (2023). Hubungan Dukungan Teman Sebaya Dengan Tingkat Stres Pada Mahasiswa PSKPS FK ULM Angkatan 2019. *Homeostasis*, 7(1), 11–18.
- Posselt, J. R., & Lipson, S. K. (2016). Competition, Anxiety, and Depression in the College Classroom: Variations by Student Identity and Field of Study. *Journal of College Student Development*, 57(8), 973–989.
<https://doi.org/10.1353/csd.2016.0094>
- Puspitasari, E. R., & Sholihah, K. U. (2022). The Relationship between Peer Social Support and Academic Burnout for Students at the Annuriyah Islamic Boarding School, Demak. *Picis*, 1(1), 323–331.
- Putri, B. V. F. M., Amalia, E., & Sari, D. P. (2021). Hubungan antara burnout dan kualitas tidur dengan prestasi akademik mahasiswa kedokteran universitas Mataram. *Prosiding Saintek*, 3, 282–292.
- Räisänen, M., Postareff, L., Mattsson, M., & Lindblom-Ylänne, S. (2020). Study-related exhaustion: First-year students' use of self-regulation of learning and peer learning and perceived value of peer support. *Active Learning in Higher Education*, 21(3), 173–188.
<https://doi.org/10.1177/1469787418798517>
- Rozsy, M. F. (2018). Hubungan antara dukungan emosional teman sebaya dengan burnout pada Mahasiswa Program Studi Sarjana Keperawatan Fakultas Kperawatan Universitas Jember.
- Santoso, A. P. (2022). Hubungan Kejadian Burnout pada Mahasiswa Fakultas Kedokteran Universitas Islam Indonesia dengan Prestasi Akademik pada Kondisi Adaptasi Baru Masa Pandemi Covid-19. *FK UII*.
- Santrock, J. W. (2011). *Life span development* (1st ed.). Erlangga.
- Sarafino, E. P., & Smith, T. W. (2011). *Health Psychology: Biopsychosocial Interactions* (7th ed.). John Wiley & Son.
- Sasmita, I. A. G. H. D., & Rustika, I. M. (2015). Peran Efikasi Diri dan Dukungan Sosial Teman Sebaya Terhadap Penyesuaian Diri Mahasiswa Tahun Pertama Program Studi Pendidikan Dokter Fakultas Kedokteran Universitas Udayana. *Jurnal Psikologi Udayana*, 2(2), 280–289.
- Sawiji, Putra, G. A., & Agustin, I. M. (2022). *Fenomenologi Circle Pergaulan*

- pada Mahasiswa Tingkat Akhir. *Jurnal Keperawatan Jiwa (JKJ): Persatuan Perawat Nasional Indonesia*, 10(1), 81–90.
- Silva, E. R. C., Gois, F. de J., Alves, N. M. S., Floriano, A. L. N., & Pimentel, D. (2022). Prevalência da Síndrome de Burnout entre estudantes de medicina e fatores sociodemográficos associados. *Research, Society and Development*, 11(15), e53111536928. <https://doi.org/10.33448/rsd-v11i15.36928>
- Simatupang, E. P. C., & Widjaja, Y. (2021). Hubungan persepsi mahasiswa tentang lingkungan pembelajaran dengan kejadian burnout di Fakultas Kedokteran Universitas Tarumanagara tahap akademik. *Tarumanagara Medical Journal*, 3(2), 291–303. <https://doi.org/10.24912/tmj.v4i1.13720>
- Sulistiawijaya, S. (2023). Hubungan dukungan sosial teman sebaya dan self-efficacy dengan resiliensi akademik pada mahasiswa. In FIK UI.