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Original Research

Differences in Psychological Well-Being Between Healthcare Professionals and Health Science Students Participating in a Psychological Well-Being Training Program

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ABSTRACT

Background: Psychological well-being (PWB) refers to an individual's ability to accept oneself, establish positive relationships with others, demonstrate autonomy in decision-making, manage environmental demands, maintain a clear sense of purpose in life, and continuously experience personal growth. In the healthcare context, PWB is essential because it is closely related to the quality of healthcare services and the effectiveness of the educational process among health science students. Differences in professional experience and developmental stages between healthcare professionals and students may lead to variations in their PWB profiles. This study aimed to analyze differences in PWB healthcare professionals and health science students who participated in a PWB training program. **Methods:** This study employed a quantitative approach using a cross-sectional comparative design. The participants consisted of 194 individuals, including 105 active healthcare professionals and 89 health science students who participated in a PWB training program organized by the Health Division of the Regional Board of the Muhammadiyah Student Association in Central Java. PWB was assessed using a questionnaire adapted from the instrument developed by Kartika (2014) and grounded in Ryff's PWB model, which encompasses six core dimensions for evaluating PWB among healthcare professionals and health science students. Data were analyzed using the Mann–Whitney U test to examine differences between the two groups. **Results:** The results showed that most indicators of PWB differed significantly between healthcare professionals and health science students, particularly in the dimensions of self-acceptance, autonomy, and environmental mastery. **Conclusion:** There are significant differences in PWB profiles between healthcare professionals and health science students. These findings highlight the importance of developing PWB training programs that consider the specific needs and characteristics of each group so that mental health interventions can more effectively support healthcare service quality and educational processes in the health sector.

Keywords: Psychological well-being; healthcare professionals; health science students; training program

1. INTRODUCTION

Psychological well-being (PWB) refers to a condition in which individuals demonstrate the ability to accept themselves, establish positive relationships with others, maintain autonomy in decision-making, effectively manage their environment, possess a clear sense of purpose in life, and continuously pursue personal growth.[1,2] In the context of healthcare professionals and health science students, achieving such a state is not merely an individual necessity but also a crucial prerequisite for delivering high-quality healthcare services and facilitating effective learning processes within health education.

Data from the Indonesia Health Survey (SKI) 2023 indicate that psychological well-being disturbances, particularly depression, affect approximately 1.4% of the population in Indonesia, with the highest prevalence observed among young individuals aged 15–24 years, reaching 2.0%.[3] This age group represents the majority of university students, suggesting that they may experience substantial academic pressure that increases the risk of academic burnout.[4] In contrast, psychological well-being among healthcare professionals in Indonesia has been reported to fall within a moderate category, with a prevalence of approximately 30.88%.[2]

Healthcare professionals face complex occupational pressures, including heavy workloads, frequent exposure to patients' suffering, and the constant demand for accurate clinical decision-making. These conditions may undermine several dimensions of psychological well-being (PWB), particularly self-acceptance and environmental mastery.[5] Meanwhile, health science students are also exposed to various stressors, such as academic pressure, concerns about future career prospects, and the need to adapt to a highly competitive educational environment. Health science students may experience academic burnout as they must simultaneously manage academic, emotional, and professional demands. In addition to intensive academic workloads, they are required to undertake clinical training that carries substantial levels of responsibility.[4] Previous studies have shown that health science students are at a significant risk of experiencing burnout, anxiety disorders, and reduced psychological well-being due to the cumulative stress encountered during their educational journey.[6,7]

The psychological well-being (PWB) model developed by Carol Ryff conceptualizes six complementary dimensions, including self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. These six dimensions are not independent constructs but are interrelated in shaping an individual's overall psychological health. Within the context of healthcare professions and health education, each dimension may be affected differently depending on the specific roles, responsibilities, and life experiences associated with each group.[1,8]

Psychological well-being (PWB) training programs have been developed to support mental health among vulnerable populations, including individuals in the healthcare sector. Interventions based on self-compassion, mindfulness, and emotional regulation have been shown to produce positive effects on the psychological well-being of both nursing students and actively practicing healthcare professionals.[9,10] However, most of these programs are designed in a generic manner and do not adequately consider potential differences in psychological well-being profiles between health science students and healthcare professionals.

This study aimed to examine the differences in psychological well-being between healthcare professionals and health science students who participated in a psychological well-being (PWB) training program. In addition, this study sought to describe the psychological well-being profiles of training participants from both groups in order to provide a basis for developing more targeted mental health interventions or training programs tailored to the specific needs of healthcare professionals and health science students. The findings of this study are expected to contribute to efforts aimed at improving the psychological well-being of healthcare professionals and health science students, thereby supporting the enhancement of healthcare service quality and the effectiveness of educational processes in the health sector.

2. METHODS

2.1 Study Design

This study employed a quantitative approach using a cross-sectional comparative design. This design allows for the identification of differences in psychological well-being (PWB) profiles between two distinct groups at a single point in time, specifically during the implementation of the psychological well-being training program.

2.2 Participants

Participants in this study were recruited from individuals who attended a psychological well-being (PWB) training program organized by the Health Division of the Regional Board of the Muhammadiyah Student Association (IMM) in Central Java. A total of 247 individuals participated in the training program. However, only 194 participants voluntarily agreed to participate in the study and completed the research questionnaire in full, allowing their responses to be included in the data analysis. Among the participants, 105 were active healthcare professionals involved in healthcare services, including medical laboratory technologists, pharmacy technicians, nurses, environmental health officers, physicians, and other healthcare practitioners. The remaining 89 participants were students currently pursuing education in health-related fields. The inclusion criteria for this study included participants' willingness to participate voluntarily, being either active healthcare professionals engaged in healthcare services or students enrolled in health science programs, and participation in the PWB training program. Participants who did not complete the questionnaire or did not meet these criteria were excluded from the data analysis.

2.3 Instrument

The instrument used in this study was a Psychological Well-Being (PWB) questionnaire developed based on the instrument introduced by Kartika (2014)[11] and adapted to measure psychological well-being among healthcare professionals and health science students according to Ryff's six-dimensional model. The questionnaire consisted of 23 statement items, all of which were negatively worded (reversed items). Therefore, higher scores on each item indicate lower levels of psychological well-being within the corresponding dimension.

Responses were measured using a four-point Likert scale ranging from 1 (strongly disagree), 2 (disagree), 3 (agree), to 4 (strongly agree). The distribution of items across the PWB dimensions was as follows: self-acceptance (A1, A9, A15, A18), autonomy (A2, A7, A13, A19), environmental mastery (A3, A4, A8, A20), purpose in life (A5, A11, A12, A17, A23), personal growth (A6, A21), and positive relations with others (A10, A14, A16, A22).

2.4 Validity and Reliability Testing

Prior to conducting the main analysis, the instrument was tested for validity and reliability. Item validity was assessed using corrected item–total correlation, with a minimum threshold value of $r = 0.30$ to determine whether an item was considered valid. Instrument reliability was evaluated using Cronbach's alpha coefficient, with a minimum acceptable value of 0.70 indicating adequate internal consistency.[12] The results of the analysis showed that all items met the established criteria for validity and reliability.

2.5 Data Analysis

Data analysis was conducted using descriptive and inferential statistical approaches. Descriptive statistics were used to summarize the psychological well-being scores of healthcare professionals and health science students using mean ± standard deviation (SD). To examine differences between the two groups, the Mann–Whitney U test was employed. This nonparametric test is appropriate for comparing two independent groups when the assumption of normality is not met. The test was selected because the data were obtained from an ordinal Likert scale.

The level of statistical significance was set at $\alpha = 0.05$ ($p < 0.05$). All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS). The grouping variable in this analysis was the respondents' status as either healthcare professionals or health science students.

2.6 Ethics Practices

This research protocol has been approved by the Health Research Ethics Committee of Muhammadiyah University of Purwokerto, with registration number KEPK/UMP/348/V/2026. All participants provided informed and voluntary consent before completing the questionnaire.

3. RESULTS

3.1 Characteristics of the Participants

Table 1 shows that 105 healthcare professionals and 89 and health science students completed the PWB questionnaire

3.2 Validity and Reliability Testing

The validity test of the instrument was conducted on 23 items of the psychological well-being (PWB) scale

using corrected item–total correlation analysis, with a minimum threshold value of r = 0.30 as the validity criterion. The results indicated that most items had correlation values exceeding the specified threshold and were therefore considered valid. However, several items did not meet the validity criterion. These included item A7 ("I am responsible for the decisions I have made"), A8 ("I am able to manage my work well while handling personal finances or other matters"), A11 ("I have a clear direction and purpose in life"), A12 ("I enjoy planning for my future and working to make it a reality"), A20 ("I am able to manage multiple responsibilities in my daily life"), and A21 ("I believe that I am capable of developing myself over time"). As these items did not meet the validity requirements, they were excluded from subsequent analyses.

Based on the reliability test results presented in Table 2, the psychological well-being scale used in this study demonstrated satisfactory reliability, with a Cronbach's Alpha value of 0.861. Reliability testing was conducted to assess the internal consistency of the psychological well-being scale used in this study. The reliability analysis was performed using Cronbach's Alpha coefficient across all 23 questionnaire items. The analysis yielded a Cronbach's Alpha value of 0.861, which exceeds the commonly accepted minimum threshold of 0.70 for acceptable reliability. This result indicates that the instrument has a high level of internal consistency, suggesting that the questionnaire items consistently measure the construct of psychological well-being. Therefore, the psychological well-being scale used in this study can be considered reliable and appropriate for data collection in this research.

Table 1. Characteristics of the participants

Characteristics	Category	Healthcare professionals (n=105)	Health Science students (n=89)
Educational / professional background	Medical laboratory of technology	20 (19.5%)	89 (100%)
	Pharmacy technician	19 (18.10%)	
	Nurse	12 (11.43%)	
	Environmental health officer	10 (9.52%)	
	Doctor / radiographer / pharmacist / others	44 (41.90%)	

Table 2. Reliability test results

Cronbach's alpha	N of items
0.861	23

3.3 Differences in Psychological Well-Being: Healthcare Professionals vs. Health Science Students

Based on the results presented in Table 3, the comparison of psychological well-being (PWB) between healthcare professionals and health science students was analyzed using mean ± standard deviation and the Mann–Whitney U test. Overall, the mean scores for health science students were higher than those for healthcare professionals across most questionnaire items. Considering that all items in the questionnaire were reversed statements, higher mean scores indicate relatively lower levels of psychological well-being. These findings suggest that health science students tend to experience higher levels of psychological pressure compared to healthcare professionals across several aspects of psychological well-being.

The Mann–Whitney U test results for all 17 PWB questionnaire items are presented in Table 3. Of the total items analyzed, 15 items showed statistically significant differences ($p < 0.05$) between healthcare professionals and health science students. Only two items, A22 ($p = 0.522$) and A23 ($p = 0.095$), did not show statistically significant differences between the two groups.

3.4 Differences Across Psychological Well-Being Dimensions

The self-acceptance dimension included items A1, A9, A15, and A18. All items within this dimension showed statistically significant differences between healthcare professionals and health science students, with Z values ranging from −2.895 to −6.153. Item A9 ("In many ways, I often feel disappointed with myself") demonstrated the largest Z value ($Z = -6.153$, $p < 0.001$), indicating a substantial difference in self-evaluation tendencies between the two groups. In the autonomy dimension, which included items A2, A13, and A19,

Table 3. Mean ± SD and Mann–Whitney U test results for differences in psychological well-being between healthcare professionals and health science students

Code	Item statement	Z	Healthcare professionals (Mean ± SD)	Health science students (Mean ± SD)	Asymp. sig. (2-tailed)
A1	I am still troubled by my past experiences	-5.316	1.92 ± 0.08	2.53 ± 0.08	0.000*
A2	I find it difficult to express controversial opinions	-4.892	2.24 ± 0.08	2.8 ± 0.07	0.000*
A3	The demands of daily life often burden me	-3.300	2.3 ± 0.08	2.66 ± 0.08	0.001*
A4	I have difficulty managing my life	-6.138	2 ± 0.07	2.7 ± 0.07	0.000*
A5	I live my life for the present and do not really think about the future	-2.021	1.86 ± 0.07	2.06 ± 0.08	0.043*
A6	I easily give up when asked to make improvements or changes in my life	-3.685	1.78 ± 0.07	2.16 ± 0.08	0.000*
A9	In many ways, I often feel disappointed with myself	-6.153	2.17 ± 0.07	2.85 ± 0.07	0.000*
A10	I feel frustrated when trying to maintain close relationships	-2.599	1.96 ± 0.07	2.21 ± 0.08	0.009*
A13	I tend to worry about what other people think about me	-5.833	2.25 ± 0.08	2.98 ± 0.09	0.000*
A14	I do not fit in with people around me but still need them	-2.371	2.2 ± 0.08	2.46 ± 0.08	0.018*
A15	Compared to others, I find it more difficult to accept myself	-5.140	1.95 ± 0.07	2.54 ± 0.08	0.000*
A16	I often feel lonely because I only have a few close friends	-5.084	1.96 ± 0.07	2.57 ± 0.08	0.000*
A17	My daily activities often seem trivial and unimportant to me	-2.633	1.90 ± 0.06	2.16 ± 0.07	0.008*
A18	I feel that many people have a better life than I do	-2.895	2.4 ± 0.08	2.72 ± 0.07	0.004*
A19	I am easily influenced by people with strong opinions	-3.080	2.14 ± 0.06	2.46 ± 0.08	0.002*
A22	I do not have many warm and trusting relationships with others	-0.641	2.3 ± 0.08	2.37 ± 0.08	0.522
A23	I do not feel enthusiastic about what I am trying to achieve	-1.667	1.89 ± 0.08	2.06 ± 0.08	0.095

*$p < 0.05$ indicates statistical significance

significant differences were also observed across all items. The largest difference was found in item A13 ("I tend to worry about what other people think about me"), with a Z value of −5.833 ($p < 0.001$), suggesting a considerable disparity between the groups in terms of perceived independence in decision-making and susceptibility to social evaluation.

The environmental mastery dimension, represented by items A3 and A4, likewise showed significant differences across all items. Item A4 ("I have difficulty managing my life") exhibited a Z value of −6.138 ($p < 0.001$), reflecting notable differences in the capacity to manage daily responsibilities and life demands between healthcare professionals and health science students. For the purpose in life dimension, which included items A5, A17, and A23, most items demonstrated significant differences between the two groups, except for item A23 ("I do not feel enthusiastic about what I am trying to achieve"), which did not reach statistical significance ($p = 0.095$). The personal growth dimension, represented by item A6, also showed a significant difference ($Z = -3.685$, $p < 0.001$). Meanwhile, in the positive relations with others dimension, which consisted of items A10, A14, A16, and A22, three items showed significant differences. However, item A22 ("I do not have many warm and trusting relationships with others") did not show a statistically

significant difference between healthcare professionals and health science students (Z = −0.641, p = 0.522).

4. DISCUSSION

This study found that the psychological well-being profiles of healthcare professionals and health science students who participated in the PWB training program differed significantly across most of the measured dimensions. These findings support the argument that differences in professional developmental stages and life experiences between the two groups contribute to distinct and non-uniform patterns of psychological well-being.[13] Such differences should be understood within their specific contextual backgrounds to ensure that psychological well-being training programs can be designed and implemented more effectively and tailored to the needs of each group.

Table 3 shows that the student group consistently reported higher mean scores than healthcare professionals across most questionnaire items. Considering that all items in the questionnaire were reversed statements, higher mean scores indicate relatively lower levels of psychological well-being. For example, in item A9 related to feelings of disappointment with oneself, students reported a mean score of 2.85 ± 0.07, whereas healthcare professionals reported a mean score of 2.17 ± 0.07. A similar pattern was observed for item A4 concerning difficulties in managing daily life, with students reporting a mean score of 2.70 ± 0.07 compared to 2.00 ± 0.07 among healthcare professionals. In addition, item A13, which measures concern about others' evaluations, showed a higher mean score among students (2.98 ± 0.09) than among healthcare professionals (2.25 ± 0.08). These differences in mean values suggest that health science students tend to experience higher levels of psychological pressure across several aspects of psychological well-being compared to healthcare professionals. Furthermore, the relatively small standard deviation values observed in both groups indicate limited variability in participants' responses, suggesting that the pattern of differences observed is relatively consistent across respondents.

The most prominent differences were observed in the self-acceptance dimension, particularly in items measuring feelings of disappointment toward oneself (A9, Z = −6.153) and difficulties in accepting one's personal condition (A15, Z = −5.140). Healthcare professionals, who generally possess greater work experience, may be more capable of integrating negative experiences as part of their professional journey. Consequently, their level of self-acceptance tends to differ from that of students, who are still in the process of developing their professional identity. Previous studies involving physiotherapists and nurses have also demonstrated that strengthening self-acceptance can significantly enhance overall psychological well-being.[14,15]

The environmental mastery dimension also demonstrated consistent and substantial differences between the two groups. Item A4, which reflects the ability to manage daily life responsibilities, showed a highly significant result (Z = −6.138). This finding may be explained by the fact that healthcare professionals are typically accustomed to operating within complex work systems, managing time in a structured manner, and making decisions under pressure on a routine basis. In contrast, students who are still adapting to clinical education systems and academic demands may experience greater difficulties in achieving effective environmental mastery.[16]

In the autonomy dimension, item A13, which measures concerns about others' evaluations, showed a particularly large difference (Z = −5.833). Health science students are generally in a developmental stage in which external validation such as feedback from lecturers, clinical supervisors, and peers—plays a significant role in shaping their professional identity. This situation may increase their vulnerability to social pressure and external judgments. In contrast, experienced healthcare professionals typically demonstrate more established autonomy in decision-making processes.[17] Previous research among nursing students has also confirmed that the autonomy dimension is strongly influenced by hierarchical structures within educational systems.[18]

In the purpose in life dimension, it is noteworthy that item A23 ("I do not feel enthusiastic about what I am trying to achieve") did not show a statistically significant difference between the two groups (p = 0.095). This finding suggests that both healthcare professionals and health science students may experience similar challenges in terms of meaning-making and intrinsic motivation related to their life goals. This phenomenon is consistent with previous findings indicating that a diminished sense of purpose is a cross-group issue commonly observed among healthcare-related populations, often associated with burnout and emotional exhaustion.[19] Consequently, training programs that emphasize strengthening the

purpose in life dimension such as through value clarification and meaning-making techniques may serve as relevant intervention strategies applicable to both groups.

A similar finding was observed for item A22 related to the warmth of social relationships ($p = 0.522$), indicating that feelings of lacking warm and trusting relationships were experienced relatively equally by both groups. This condition suggests that challenges in establishing genuine social relationships may not depend on differences in professional status but rather represent a more universal issue within healthcare environments. In this context, psychological well-being training programs that emphasize relational competence and self-compassion may have the potential to positively benefit all participants regardless of their professional or educational status.[20]

Overall, the differences in psychological well-being profiles identified in this study highlight the importance of developing training strategies that are responsive to the distinct characteristics of healthcare professionals and health science students. Programs aimed at enhancing psychological well-being among healthcare professionals through self-compassion–based interventions have been reported to be effective in reducing emotional burden and strengthening psychological resilience.[21] In contrast, for health science students, approaches that integrate emotional regulation training, reinforcement of academic purpose, and social support have been shown to produce more favorable outcomes.[22,23] Therefore, training programs that accommodate the specific needs of each group while maintaining shared sessions on universally relevant topics such as strengthening life purpose and social relationships may serve as a more comprehensive intervention model.

This study has several limitations that should be acknowledged. The cross-sectional design limits the ability to draw causal conclusions, making it difficult to determine whether the observed differences were a result of the training program or reflected pre-existing differences between the groups. Therefore, future studies are recommended to employ a pretest–posttest design with a control group to better evaluate the causal effects of psychological well-being interventions.

5. CONCLUSION

The results of this study indicate significant differences in psychological well-being between healthcare professionals and health science students who participated in the PWB training program. A total of 15 out of 17 questionnaire items demonstrated statistically significant differences ($p < 0.05$), encompassing the dimensions of self-acceptance, autonomy, environmental mastery, personal growth, purpose in life, and most aspects of positive relations with others. Only two items those related to the warmth of social relationships and enthusiasm toward life achievements did not show significant differences, suggesting the presence of shared fundamental needs between the two groups.

These findings provide important implications for the development of psychological well-being training programs in the healthcare field. Effective programs should consider the differing PWB profiles of healthcare professionals and students by providing group-specific modules while maintaining joint sessions on areas where both groups share similar needs. Future research employing longitudinal designs and mixed-methods approaches is recommended to gain a deeper understanding of the dynamics of psychological well-being changes within the context of training interventions.

Ethical Approval

This research protocol has been approved by the Health Research Ethics Committee of Muhammadiyah University of Purwokerto, with registration number KEPK/UMP/348/V/2026.

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Competing Interests

All the authors declare that there are no conflicts of interest.

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Underlying Data

Derived data supporting the findings of this study are available from the corresponding author on request.

REFERENCES

1. Ryff CD. Psychological well-being revisited: Advances in the science and practice of eudaimonia. Psychotherapy and Psychosomatics. 2014;83(1):10–28. https://doi.org/10.1159/000353263
2. Fauziah AR. How is the psychological well-being of healthcare workers in Indonesia during the pandemic? Psikoborneo: Jurnal Ilmiah Psikologi. 2022;10(3):530–537. http://dx.doi.org/10.30872/psikoborneo.v10i3.8470
3. Ministry of Health of the Republic of Indonesia. Indonesia Health Profile 2023. Jakarta: Ministry of Health of the Republic of Indonesia; 2024.
4. Utami PM, Somantri I, Rifa'atul Fitri SU. Burnout Akademik Mahasiswa Keperawatan Tingkat Akhir dalam Konteks Pendidikan Tinggi: Scoping Review Faktor Risiko dan Protektif. Jurnal Ners. 2016;10(1):2126–2129. https://doi.org/10.31004/jn.v10i1.51882
5. Egawati S, Aryani L. The relationship between workload and job stress among healthcare workers during the pandemic. Persepsi: Jurnal Riset Mahasiswa Psikologi 2022;1(1):47-54.
6. Wahdini AI. Burnout and coping strategies among medical students: A literature review. Berkala Ilmiah Kedokteran dan Kesehatan Masyarakat 2025;3(1):142–155. https://doi.org/10.20885/bikkm.vol3.iss1.art14
7. Deviany NF, Syakurah RA. Analysis of perceptions and mental health service needs among university students. Nutrix Journal 2025;9(1):22-37. https://doi.org/10.37771/nj.v9i1.1266
8. Daud KR, Bestari D. A literature study on the effects of stressors on healthcare service performance quality. Jurnal Praba : Jurnal Rumpun Kesehatan Umum. 2023;1(4):10-17. https://doi.org/10.62027/praba.v1i4.18
9. Carmona-Gutiérrez A, Ruiz-Fernández MD, Ortega-Galán ÁM, Henríquez D, Castillo-Mansilla D. Effects on psychological well-being of a self-compassion training program in student nurses. Teaching and Learning in Nursing2025;20(4):e1049–e1056. https://doi.org/10.1016/j.teln.2025.04.026
10. Dharmayanti PA, Lestari LPS. Mindfulness techniques to improve psychological well-being. In: Proceedings of the National Seminar on Community Service (SENADIMAS) 2025;10.
11. Kartikasari ND. The relationship between religiosity and psychological well-being among patients with type 2 diabetes mellitus. Surakarta: Universitas Muhammadiyah Surakarta; 2014.
12. Demirel Y, Gulsen M. The effect of expressing emotions on the psychological well-being of individuals suffering from chronic musculoskeletal diseases. New Emirates Medical Journal. 2024;5. https://doi.org/10.2174/0250688205666230908111730
13. Marujo HÁ. Positive psychology's role in the training of health professionals: Looking into the future. In: Active Learning for Digital Transformation in Healthcare Education, Training and Research.Cambridge: Academic Press; 2023. https://doi.org/10.1016/B978-0-443-15248-1.00011-4
14. Rizkila A, Ernawati S, Rachmawati A. The relationship between gratitude and psychological well-being among physiotherapists. Jurnal Ilmu Keperawatan 2023;16(1):50-55. https://doi.org/10.47942/jiki.v16i1.1256
15. Yusronuddin AL, Tatiyani T. The relationship between self-compassion and social support with psychological well-being among nurses at Dr. Sitanala General Hospital. Jurnal Psikologi Kreatif Inovatif. 2022;2(3):118-124. https://doi.org/10.37817/psikologikreatifinovatif.v2i3.2135
16. Entrata P, Nicomedes CJ. Emotional intelligence and perceived social support as predictors of psychological well-being among nurses in hospitals in Metro Manila: Basis for a psychological wellness program. Archives of Psychiatric Nursing. 2024;49:140–148. https://doi.org/10.1016/j.apnu.2024.02.012
17. Sadila M, Purwaningsih E, Mardalia D. The influence of job stress levels, mental health, and psychological well-being on human resource quality. Permana: Jurnal Perpajakan, Manajemen, dan Akuntansi. 2025;16(2):1224–1240. https://doi.org/10.24905/permana.v16i2.720
18. Calderón-Cruz B, García-Sánchez U, González-Oya JL, Prieto-Campo Á. Factors related to well-being and psychological health in nursing students: A cross-sectional survey. International Journal of Nursing Studies Advances. 2025;9:100421. https://doi.org/10.1016/j.ijnsa.2025.100421
19. Marwanto R. Exploring work engagement in enhancing flourishing among healthcare workers at PKU Muhammadiyah Sruweng Hospital. Jurnal Impresi Indonesia 2022;1(8):883-900. https://doi.org/10.58344/jii.v1i8.356
20. Güvener YÖ. The effect of laughter therapy on self-efficacy and psychological well-being in nursing students. Archives of Psychiatric Nursing. 2024;52:121–127. https://doi.org/10.1016/j.apnu.2024.07.021
21. Elisadevi N, Sulastri TS, Dasi I. The role of gratitude in improving psychological well-being among healthcare workers during crisis situations. Jurnal Rumpun Ilmu Kesehatan 2025;4(1):30-51. https://doi.org/10.55606/jurrikes.v4i1.4372
22. Eraydin C, Alpar SE. The effect of laughter therapy on nursing students' anxiety, life satisfaction, and psychological well-being during the COVID-19 pandemic: A randomized controlled study. Advances in Integrative Medicine. 2022;9(3):173–179. https://doi.org/10.1016/j.aimed.2022.06.006
23. Park JH, Kim JY, Kim HO. Effects of a group poetry therapy program on stress, anxiety, ego-resilience, and psychological well-being of nursing students. Archives of Psychiatric Nursing. 2022;41:144–152. https://doi.org/10.1016/j.apnu.2022.07.027