ORIGINAL ARTICLE

Physical Therapy Journal of Indonesia (*PTJI*) 2025, Volume 6, Number 2: 260-265
E-ISSN : 2722-6034 ; P-ISSN : 2722-0125

Enhancing self-concept in patients with mental disorders through deep breathing exercises and community mental health nursing training: A quasi-experimental study

Ibrahim Rahmat[1,*], Mohammad Hendra Setia Lesmana[1], Soewadi[2], Mohammad Hakimi[3], Kiki Amanda Fatmawati[4]

[1]Department of Mental Health and Community Nursing, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia
[2]Department of Psychiatric, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia
[3]Department of Obstetrics and Gynecology, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia
[4]Nursing Science Study Program, Faculty of Health Sciences, Universitas Esa Unggul, Jakarta, Indonesia

*Corresponding author:
Ibrahim Rahmat, Department of Mental Health and Community Nursing, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia;
ibrahim.rahmat@ugm.ac.id

Received: 2025-04-22
Accepted: 2025-08-19
Published: 2025-11-28

ABSTRACT

Background: Patients with mental diseases with low self-concept are more likely to engage in maladaptive behavior, isolate themselves, and relapse. This study aimed to examine the effectiveness of deep breathing exercise and community mental health nursing (CMHN) training in improving the self-concept quality of patients with mental disorders.
Methods: The study used a quantitative quasi-experimental approach with a non-equivalent control group. A total of 235 individuals were randomly selected from ten primary health facilities in Bantul, Yogyakarta, including 120 in the intervention group (combination of deep breathing exercises and CMHN training) and 115 in the control group (self-directed study only). Eligible participants were cooperative patients with mental disorders in the maintenance or health promotion phase, while those unwilling to follow the training protocol were excluded. Self-concept served as the dependent variable, measured using a self-concept questionnaire. Data were analyzed using paired t-tests in SPSS, with statistical significance set at $p < 0.05$.
Results: The intervention group showed a significant increase in mean self-concept scores, from 105.2 pretest to 110.0 posttest ($p = 0.004$), while no significant change was observed in the control group ($p = 0.092$).
Conclusion: Integrating deep breathing exercises with CMHN training improves the self-concept of individuals with mental illnesses during the maintenance and health promotion stages.

Keywords: community mental health nursing, deep breathing exercise, mental disorders, self-concept, quasi-experimental.
Cite This Article: Rahmat, I., Lesmana, M.H.S., Soewadi., Hakimi, M., Fatmawati, K.A. 2025. Enhancing self-concept in patients with mental disorders through deep breathing exercises and community mental health nursing training: A quasi-experimental study. *Physical Therapy Journal of Indonesia* 6(2): 260-265. DOI: 10.51559/ptji.v6i2.336

INTRODUCTION

Mental health is an important aspect of total well-being since it reflects a person's ability to cope with stress, achieve personal growth, and contribute to society.[1] Despite this, mental health diseases are still a major worldwide and national concern. Globally, approximately 13% of people suffer from mental problems.[2] In Indonesia, the incidence of families with people exhibiting symptoms of psychotic illnesses or schizophrenia is 4.0 per mille, with the Special Region of Yogyakarta having the highest rate of 9.3 per mille.[3] Bantul had the second-highest number of serious mental disorder cases, with 2,784 in 2022.[4]

Mental illness has a significant impact on individuals, families, and society. Families caring for people with mental illnesses frequently face emotional distress and a tremendous caregiving burden, which disturbs family unity.[5,6] The stigma of mental illness can further alienate individuals and their families, exacerbating despondency and impeding treatment.[7] Individuals with mental problems frequently have a negative self-image, which is influenced by variables such as early trauma, social rejection, and internalized stigma.[8-10] Self-concept refers to one's thoughts, beliefs, and attitudes toward oneself, which influence interpersonal interactions. Its primary components are self-image, self-esteem, ideal self, self-role, and personal identity.[11] People with mental illnesses and poor self-esteem frequently feel self-doubt, problems accepting and caring for oneself, excessive self-reflection, and difficulties in coherently conveying their life stories.[8]

A low self-concept can lead to maladaptive behaviors, social isolation, and an increased risk of relapse.[9,10,12] Moreover, reduced self-efficacy often makes patients feel less confident in managing their health, which interferes with self-care and decreases treatment adherence. Strengthening self-concept is therefore crucial to prevent these negative outcomes and promote recovery.[13]

Deep breathing has developed as a low-cost, easily accessible intrapersonal method for improving self-concept and promoting healing in people with mental illnesses. Slow, controlled techniques like diaphragmatic breathing and cyclic sighing have been demonstrated to alleviate anxiety, boost mood, and diminish physiological arousal, all of which promote emotional regulation.[14] One randomized controlled research

found that just five minutes of cyclic sighing per day dramatically enhanced mood and reduced respiratory rate when compared to mindfulness meditation.[14] Slow breathing improves parasympathetic activity (as seen by increased heart rate variability) while decreasing sympathetic dominance, which is associated with emotional stability and calm.[15] Beyond its physiological effects, deep breathing promotes self-awareness, mindfulness, and a sense of control over bodily reactions, allowing people to lessen reactivity and establish a coherent, compassionate self-narrative that boosts self-esteem and identity.[16-18]

Community mental health nursing (CMHN) is critical in helping people recover from mental illnesses by providing recovery-oriented case management and personalized interventions.[19] These approaches improve self-esteem, encourage collaborative care across health centers and home settings, and assist patients in readjusting to their social surroundings, thereby minimizing isolation and stigma. Furthermore, CMHN increases life skills and work productivity while also instilling self-confidence and self-esteem, both of which are necessary for successful rehabilitation and reintegration into society.[20]

Several research have looked into the implementation of CMHN programs in mental health services.[22-24] However, most have concentrated solely on CMHN or deep breathing exercises. Research on their integration to improve self-concept is still restricted, notably in primary healthcare settings in Bantul, Yogyakarta. This integration is critical since self-concept is essential for rehabilitation. Combining emotional regulation tools with community-based treatments provides a more comprehensive strategy, which has yet to be broadly adopted. As a result, the purpose of this study was to determine the efficacy of combining deep breathing exercises with CMHN training in improving the self-concept of patients with mental problems in Bantul's primary health clinics.

METHODS

The study used a quantitative quasi-experimental approach with a non-equivalent control group. The independent factors were the integration of deep breathing exercises and community mental health nursing training, while the dependent variable was patients' self-concept with mental diseases.

The study was carried out in 10 primary health centers in Bantul, which were divided into intervention and control groups based on geographical location. The intervention group included Sedayu I, Jetis I, Sewon II, Banguntapan I, and Dlingo I health centers, whereas the control group included Kasihan I, Piyungan I, Pandak I, Pundong, and Kretek centers. Data were collected between June and November 2023.

A total of 235 patients with mental problems took part, with 120 assigned to the intervention group and 115 to the control group. Participants met the inclusion criteria by being in the maintenance or health promotion stages and indicating a willingness to cooperate. Those who refused to follow the procedures were excluded.

There were two phases of the investigation. The initial phase included deep breathing exercise training derived from Perciavalle et al.[25] The second part included CMHN training following Keliat et al.[26] criteria, led by a qualified team. Both treatments were presented to nurses and community mental health cadres (CMHCs) at the ten participating centers in order to integrate them into routine mental health care.

Participants completed a pretest to assess their baseline self-concept, followed by a three-month intervention session that included deep breathing exercises and CMHN application. Posttest assessments were then used to assess self-concept changes. In the control group, nurses and CMHCs received no formal instruction but were given the deep breathing and CMHN modules for self-study. Throughout the trial, individuals received standard nursing care (treatment as usual). Control individuals also performed pre- and post-test evaluations to compare with the intervention group. Both groups were treated similarly, with the exception that the intervention group got direct CMHN training and self-concept evaluation guidance.

The tool utilized was a self-concept assessment questionnaire.[27] The product-moment correlation technique was used to verify validity, and coefficients ranging from 0.34 to 0.93 confirmed that all items were valid. The Cronbach's Alpha reliability test yielded a result of 0.91, suggesting good internal consistency. Bivariate analyses were conducted using paired-sample t-tests to compare pre- and posttest results for each component as well as overall self-concept. Statistical analyses were performed using SPSS, with p-values < 0.05 deemed significant.

The Medical and Health Research Ethics Committee (MHREC), Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, approved this study (reference: KE/FK/0637/EC/2023). Following an explanation of the study's objectives and methods, all participants supplied signed informed consent. Confidentiality and anonymity were tightly enforced.

RESULTS

A total of 235 participants were recruited, including 120 in the intervention and 115 in the control group. There were no dropouts from either the pretest or posttest evaluations. **Table 1** shows the participants' characteristics. The age distribution was similar across groups, with the majority of individuals aged 26-30 years (35.0% vs. 36.5%) and 31-35 years (20.8% vs. 20.9%). There was little participation in the youngest (15-20 years) and oldest (41-45 years) age categories. The gender distribution was balanced, with slightly more men in both the intervention (52.5%) and control groups (55.7%). The majority of participants identified as Muslim (90.8% vs. 93.9%), with a small minority as Christian/Catholic or Protestant.

Educational levels were comparable between groups. The majority had completed senior high school (35.0% vs. 34.8%), followed by junior high (25.0% vs. 25.2%) and elementary school (24.2% vs. 23.5%). A few people indicated no formal education (12.5% vs. 13.9%). In terms of employment, the majority were either unemployed (35.8% vs. 33.1%) or agricultural laborers (30.8% vs. 37.4%), with farmers accounting for 23.3% and

21.7%. Entrepreneurs made up 9.2% of the intervention group and 7.8% of the control group. One civil servant was recognized in the intervention group, but none in the control group. There were no significant sociodemographic differences between the groups, demonstrating baseline equivalency (**Table 1**).

Table 2 displays the mean total self-concept ratings prior to and following the intervention. In the intervention group, the mean score rose considerably from 105.2 to 110.0 (p=0.004), indicating a boost in self-esteem. Although the control group's mean score increased, the difference was not statistically significant (p=0.092). Component-wise increases were seen in self-image (23.42 to 24.10), ideal self (18.43 to 19.38), self-esteem (20.67 to 20.87), and personal identity (22.10 to 22.95).

Table 3 provides a more in-depth review of each self-concept component. Using paired sample t-tests, mean scores increased across all components in both groups, but only some exhibited significant improvements (p<0.05). In the intervention group, self-image improved considerably from 23.7 to 24.6 (p=0.033), and self-role from 21.3 to 23.1 (p=0.003). Increases in ideal self (17.9 to 18.2), self-esteem (20.6 to 21.5), and personal identity (21.8 to 22.6) were not statistically significant.

In the control group, only the personal identification component increased significantly, from 22.0 to 23.1 (p=0.005). Other components, self-image, ideal self, self-esteem, and self-role showed minor but non-significant gains.

Table 1. Participants' characteristics

Characteristics	Intervention group (N=120)		Control group (N=115)	
	n	%	n	%
Age				
15–20	8	6.7	8	7.0
21–25	18	15.0	16	13.9
26–30	42	35.0	42	36.5
31–35	25	20.8	24	20.9
36–40	16	13.3	16	13.9
41–45	11	9.2	9	7.8
Gender				
Male	63	52.5	64	55.65
Female	57	47.5	51	44.35
Religion				
Islam	109	90.8	108	93.9
Christian/Catholic	8	6.7	4	3.5
Protestant	3	2.5	3	2.6
Education Level				
Diploma	4	3.3	3	2.6
Senior high school	42	35.0	40	34.8
Junior high school	30	25.0	29	25.2
Elementary school	29	24.2	27	23.5
Uneducated	15	12.5	16	13.9
Occupation				
Civil servant	1	0.9	0	0.0
Entrepreneur	11	9.2	9	7.8
Farmer	28	23.3	25	21.7
Farm laborer	37	30.8	43	37.4
Unemployed	43	35.8	38	33.1

N, number of participants

Table 2. Differences in the mean total scores of self-concept in the pretest and posttest

Group	n	Pretest	Posttest	*P*-value
		Mean±SD	Mean±SD	
Intervention	120	105.2±11.8	110.0±9.7	0.004
Control	115	106.6±13.7	110.4±11.2	0.092

N, number of participants; SD, standard deviation.

Table 3. Differences in the mean scores of each self-concept component in the pretest and posttest

Self-concept component	Intervention group (n=120)			Control group (n=115)		
	Pretest Mean±SD	Posttest Mean±SD	*P*-value	Pretest Mean±SD	Posttest Mean±SD	*P*-value
Self-image	23.7 ± 3.8	24.6 ± 3.5	0.033	23.4 ± 3.7	24.10 ± 3.2	0.075
Ideal self	17.9 ± 2.7	18.2 ± 2.7	0.381	18.4 ± 2.6	19.38 ± 2.9	0.060
Self-esteem	20.6 ± 3.3	21.5 ± 3.5	0.107	20.7 ± 3.9	20.87 ± 3.6	0.391
Self-role	21.3 ± 4.8	23.1 ± 3.5	0.003	22.1 ± 4.6	22.95 ± 3.6	0.165
Personal identity	21.8 ± 3.4	22.6 ± 2.5	0.057	22.0 ± 3.1	23.1 ± 2.6	0.005

N, number of participants; SD, standard deviation.

DISCUSSION

The total self-concept component showed statistically significant improvement in the intervention group but not in the control group. This data indicates that the intervention effectively improved participants' self-concept, but no significant improvement occurred in the control group. This improvement is consistent with prior research demonstrating that specialized mental health nursing interventions administered by skilled nurses can promote social engagement and personal achievement, hence enhancing self-concept in individuals with mental disorders.[28] A supporting case study found that CMHN therapies improve self-concept by acknowledging patients' strengths, offering support, teaching skills, establishing positive relationships, and providing ongoing assistance.[29] In contrast, nurses in the control group, despite receiving the CMHN module for self-study, did not benefit from the comprehensive knowledge or skill development provided by simulation-based training, which may explain the lack of improvement in their patients' self-concept.

The intervention group had significantly higher mean scores for self-image and self-role components, but the control group had no meaningful change. This shows that CMHN training and the application of self-concept assessment procedures significantly improved participants' self-image and self-role. Previous research has also shown that nurse training can effectively influence patients' beliefs and attitudes concerning their conditions, resulting in improved body image.[30] CMHN training provides nurses with psychoeducational and cognitive-behavioral skills to address body image problems and build supportive interactions, resulting in more positive self-perceptions for their patients.[31]

Previous research has shown that people with mental diseases, notably bipolar disorder, improve their self-role after receiving nurse training.[32] Recovery-oriented mental health treatments prioritize active patient participation in care. CMHN training helps nurses to assist patients in setting personal objectives, advocating for themselves, and strengthening their own involvement in managing their diseases.[33] These changes are facilitated by a trusting nurse-patient relationship, candid discussions about patient requirements, and patient empowerment in self-monitoring.[32]

The study of ideal self and self-esteem components found no significant improvement in either the intervention or control groups. This contrasts with prior research, which found that nurses who got training and performed movement therapy successfully improved the ideal self and self-esteem of women with mental illnesses.[34] The disparity could be due to differences in participant characteristics that were not examined in this study. Furthermore, other research indicates that factors other than nursing interventions may influence schizophrenia patients' self-esteem.[29]

Childhood experiences, interpersonal relationships, and self-perception all have an impact on how people with mental illnesses develop their ideal selves.[35] Variations in personal features, psychological circumstances, and the form of the condition all contribute to low self-esteem and impede the development of the ideal self.[36] Furthermore, cultural and economic conditions, parental upbringing and beliefs, social comparison, and broader global developments all influence the development of one's ideal self.[37] Self-stigma[38,39], discrimination[40], familial relationships, emotional abuse, and past life experiences all have an impact on those with mental disorders' self-esteem.[41] Social connections, cultural beliefs, life phases, psychological states, and personal efforts to think optimistically or seek help are all key factors in preserving self-esteem.[42]

The control group showed a significant improvement in the personal identification component, whereas the intervention group did not. This could be because, while the control group did not receive CMHN training as an intervention, the nurses and community health workers (CHWs) did use the CMHN module for self-directed study. Previous study demonstrates that both simulation-based training (intervention group) and self-directed online learning (control group) can improve nurses' knowledge, potentially facilitating the delivery of good mental health nursing care.[43] Furthermore, while CMHN implementation by certified nurses can improve the personal identity of patients with mental disorders, other factors such as stressors, traumatic experiences, self-recognition difficulties, disrupted life roles, social relationship challenges, and physical conditions can all have an impact on personal identity.[44,45]

Nurses training in Community Mental Health Nursing (CMHN) get a better awareness of psychosocial dynamics, allowing them to assist patients in recognising their strengths, setting life objectives, and developing a positive self-image.[46] They also learn important therapeutic skills like movement therapy, psychoeducation, and ways for building good nurse-patient interactions.[46,47] A strong therapeutic relationship promotes acceptance, understanding, and trust, making care more tailored and responsive to individual requirements. As a result, it improves patients' self-esteem by boosting self-confidence, encouraging independent decision-making, and reassuring them that their needs are important, ultimately aiding rehabilitation and enhancing general mental health.[48,49]

Integrating deep breathing during CMHN improves patients' self-esteem by lowering stress and improving emotional regulation.[50,51] Deep breathing reduces cortisol levels, allowing patients to feel calmer and more in control of their emotions, resulting in increased self-confidence and a good self-image. Deep breathing on its own improves self-control and self-efficacy, both of which are important components of a good self-concept.[51,52] As a result, deep breathing therapies can assist people with mental illnesses improve their self-esteem by managing stress and restoring emotional balance.[53]

Trained nurses play an important role in educating families and communities, minimizing stigma, and creating an inclusive environment that promotes the healthy development of patients' self-esteem.[46] Individuals with mental diseases benefit from having a strong self-concept because it allows them to better understand themselves, participate more effectively in treatment and recovery, and

develop stronger connections, thereby improving their mental health and well-being.[50]

The study has several limitations. First, the quasi-experimental methodology, rather than a randomized controlled study, may have created selection bias, limiting the findings' generalizability. Second, patients' self-concepts were studied as a single group without taking into consideration variances in mental diagnoses, despite the fact that self-concept varies depending on the nature and severity of the ailment. Finally, other factors beyond the study's control, such as social support, interpersonal interactions, and environmental impacts, may have influenced the findings.

CONCLUSION

This study emphasizes the importance of self-concept in the care of people with mental illnesses. The results indicate that deep breathing exercises and CMHN training can improve self-concept during the maintenance and health promotion periods. The researchers advocate for the continued use of these therapies in clinical practice. Future research should use randomized controlled trial designs to eliminate selection bias and increase the validity of the findings. It would also be useful to investigate how self-concept changes across psychiatric disorders, as each condition's distinct qualities and experiences may influence individual reactions to interventions. Future research should also take into account broader contextual aspects such as social support, interpersonal connections, and environmental conditions, all of which influence self-concept, emotional well-being, and therapeutic effectiveness.

ACKNOWLEDGMENTS

The authors sincerely thank all study participants.

AUTHOR CONTRIBUTIONS

IR, S, and MH contributed to the concept and approach. IR oversaw data curation, formal analysis, project administration, and supervision. IR, S, and MH conducted the inquiry, using resources contributed by IR, MHSL, S, and MH. IR, S, and MH validated the data, while IR and MHSL visualized the results. IR and MHSL developed the original document, which was then reviewed and edited by IR, MHSL, and KAF.

CONFLICT OF INTERESTS

The authors report no conflicts of interest concerning this study.

ETHICAL CONSIDERATIONS

This study received ethical approval from the Medical and Health Research Ethics Committee, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada (Ref: KE/FK/0637/EC/2023). All participants were informed about the study's objectives and procedures, and written informed consent was obtained prior to participation. Confidentiality was maintained, and all data were anonymized to protect participants' identities.

FUNDING

None.

REFERENCES

1. Gautam S, Jain A, Chaudhary J, Gautam M, Gaur M, Grover S. Concept of mental health and mental well-being, its determinants and coping strategies. Indian J Psychiatry. 2024; 66(2): 231–44
2. Castaldelli-Maia JM, Bhugra D. Analysis of global prevalence of mental and substance use disorders within countries: focus on sociodemographic characteristics and income levels. International Review of Psychiatry. 2022; 34(1): 6-15.
3. Badan Kebijakan Pengembangan dan Pelayanan Kesehatan, Kementerian Kesehatan Republik Indonesia. Fact Sheet: Survei Kesehatan Indonesia (SKI) 2023. Jakarta: Kementerian Kesehatan RI; 2023.
4. Dinas Kesehatan Provinsi Daerah Istimewa Yogyakarta. Buku Data Kesehatan DIY 2022. Yogyakarta: Dinas Kesehatan Provinsi DIY; 2023.
5. Masmoudi R, Abid W, Salem EB, et al. Resilience and burden in family caregivers of patients with severe mental disorders. European Psychiatry. 2024; 67(1): 604-605.
6. Subudhi C, Biswal R, Pathak A. Multidimensional impact of mental illness on tribal families in India. Taiwanese Journal of Psychiatry. 2022; 36(2): 82-87.
7. Fekadu W, Craig TK, Hanlon C, Mayston R, Fekadu A. Distributed impact of severe mental health conditions in rural Ethiopia, a qualitative study. BMC Psychiatry. 2024; 24(1): 670.
8. Cicero DC, Martin EA, Becker TM, Kerns JG. Decreased self-concept clarity in people with schizophrenia. The Journal of Nervous and Mental Disease. 2016; 204(2): 142-147.
9. El-MohammadY G, Mahmoud AS, El-Sayad S. Loneliness and self concept among psychiatric patients in Port Said psychiatric health hospital. Port Said Scientific Journal of Nursing. 2019; 6(3): 249-266.
10. Cicero DC. Self-concept clarity and psychopathology. Self-concept clarity: Perspectives on assessment, research, and applications: Springer. 2018; 219-242.
11. Stuart GW. Prinsip dan praktik keperawatan kesehatan jiwa Stuart. Edisi Indonesia ke-11. Jakarta: Elsevier Health Sciences; 2022.
12. Fulford D, Holt DJ. Social withdrawal, loneliness, and health in schizophrenia: psychological and neural mechanisms. Schizophr Bull. 2023; 49(5): 1138–49.
13. Roosenschoon BJ, Deen ML, van Weeghel J, Kamperman AM, Mulder CL. Illness (self) management, clinical and functional recovery as determinants of personal recovery in people with severe mental illnesses: a mediation analysis. PLoS One. 2024; 19(11): e0313202.
14. Balban MY, Neri E, Kogon MM, et al. Brief structured respiration practices enhance mood and reduce physiological arousal. Cell Rep Med. 2023; 4(1): 100895.
15. Zaccaro A, Piarulli A, Laurino M, et al. How breath-control can change your life: a systematic review on psycho-physiological correlates of slow breathing. Front Hum Neurosci. 2018; 12: 353.
16. Khng KH. Deep breathing and mindfulness: simple techniques to promote students' self-regulation and well-being from the inside out. In: Frydenberg E, editor. Positive psychology and positive education in Asia: understanding and fostering well-being in schools. Singapore: Springer. 2023; 311–25.
17. Prpa M, Tatar K, Françoise J, Riecke B, Schiphorst T, Pasquier P. Attending to breath: exploring how cues in a virtual environment guide attention to breath and shape experience to support mindfulness. In: Proceedings of the 2018 Designing Interactive Systems Conference. 2018. p. 71–84.
18. Decker JT, Brown JLC, Ashley W, Lipscomb AE. Mindfulness, meditation, and breathing exercises: reduced anxiety for clients and self-care for social work interns. Soc Work Groups. 2019; 42(4): 308–22.
19. Liu WI, Hsieh WL. Community psychiatric mental health nursing: practice and challenges. Hu Li Za Zhi. 2023; 70(4): 7–14.
20. Mousavizadeh SN, Bidgoli MAJ. Recovery-oriented practices in community-based mental health services: a systematic review. Iran J Psychiatry. 2023; 18(3): 332.
21. Keliat BA, Riasmini NM, Daulima NHC, Erawati E. Aplicación del modelo comunitario de enfermería de salud mental entre las personas con esquizofrenia. Enferm Clín (Engl Ed). 2022; 32(2): 131–8.
22. Ismailinar I, Sulaiman S, Simeulu P. Pelatihan Community Mental Health Nursing (CMHN) bagi perawat dapat meningkatkan penanganan masalah kesehatan jiwa di masyarakat. J Keperawatan. 2023; 2(2): 184–90.

23. Nuryani R, Lindasari SW, Sopiah P, Rahmat DY, Nurhuda PM. Optimalisasi kemampuan perawat Community Mental Health Nursing dalam manajemen asuhan keperawatan psikososial pada masa pandemi COVID-19 di Kabupaten Sumedang. PengabdianMu: J Ilm Pengabdian Kpd Masyarakat. 2022; 7(6): 868–74.
24. Hidayati LN, Fahrizal Y, Wardaningsih S. Pencegahan stigma gangguan jiwa dengan pelatihan Community Mental Health Nursing. Aksiologiya: J Pengabdian Kpd Masyarakat. 2023; 7(3): 447–57.
25. Perciavalle V, Blandini M, Fecarotta P, et al. The role of deep breathing on stress. Neurol Sci. 2017; 38(3): 451–8.
26. Keliat BA, Helena N, Nurhaeni H. Keperawatan kesehatan jiwa komunitas. Jakarta: EGC; 2011.
27. Rahmat I. Guidelines for Self Concept Assessment (PPKD): Pedoman Pengkajian Konsep Diri (PPKD). Yogyakarta: Betha Grafika; 2015.
28. Pereira S, Peralta A, Oliveira A, Alves A, Seabra P. Intervenções de enfermagem para o autoconceito da pessoa com doença mental: revisão integrativa da literatura. RevSALUS. 2022; 4(3).
29. Wardani IY. Increasing self-esteem of schizophrenia clients through online clinical practice. J Ilmu Keperawatan Jiwa. 2020.
30. Hardy S. Training practice nurses to improve the physical health of patients with severe mental illness: effects on beliefs and attitudes. Int J Ment Health Nurs. 2012; 21(3): 259–65.
31. Gillen MM, Markey CH. Body image and mental health. In: Encyclopedia of Mental Health. 3rd ed. Vol. 1–3. Amsterdam: Elsevier; 2023. p. 246-56.
32. Van den Heuvel S, Goossens P, Terlouw C, Schoonhoven L, Van Achterberg T. Self-management education for bipolar disorders: a hermeneutic-phenomenological study on the tacit knowledge of mental health nurses. Issues Ment Health Nurs. 2019; 40(11): 942–50.
33. Cleary M, Lees D, Molloy L, Escott P, Sayers J. Recovery-oriented care and leadership in mental health nursing. Issues Ment Health Nurs. 2017; 38(5): 458–60.
34. Choudhary VS, Chaudhary G. Impact of activity therapy on improving self-esteem among women with mental illness. Group. 2015; 5(6).
35. Kyrios M, Moulding R, Bhar SS, Doron G, Nedeljkovic M, Mikulincer M. Future directions in examining the self in psychological disorders. In: The Self in Understanding and Treating Psychological Disorders. New York: Routledge. 2016. p. 233.
36. Chuang SP, Wu JYW, Wang CS. Self-perception of mental illness, and subjective and objective cognitive functioning in people with schizophrenia. Neuropsychiatr Dis Treat. 2019; 15: 967–76.
37. Irtelli F, Durbano F, Marchesi B. The real self and the ideal self. In: Psychoanalysis: A New Overview. London: IntechOpen; 2021.
38. Alqahtani R, Pringle A. The general impact of self-stigma of mental illness on adult patients with depressive disorders: a systematic review. BMC Nurs. 2024; 23(1): 432.
39. Kumar N. Association between internalized stigma and self-esteem among chronic patients with psychiatric disorders. J Psychosoc Wellbeing. 2022; 3(1): 25–32.
40. Kim H, Han K, Won S. Perceived discrimination as a critical factor affecting self-esteem, satisfaction with physical appearance, and depression of racial/ethnic minority adolescents in Korea. Behav Sci. 2023; 13(4): 343.
41. Paixão RF, Patias ND, Dell'Aglio DD. Autoestima e sintomas de transtornos mentais na adolescência: variáveis associadas. Psicol Teor Pesqui. 2019; 34: e34436.
42. Hepper EG. Self-esteem. In: Reference Module in Neuroscience and Biobehavioral Psychology. Amsterdam: Elsevier; 2017. p. 125-39.
43. Rutherford-Hemming T, Kelsey NC, Grenig DL, Feliciano M, Simko L, Henrich CM. Multisite single-blinded randomized control study of transfer and retention of knowledge and skill between nurses using simulation and online self-study module. Simul Healthc. 2016; 11(4): 264–70.
44. Narendorf SC, Arora A, Santa Maria D, et al. Self-identification of mental health problems among young adults experiencing homelessness. Community Ment Health J. 2023; 59(5): 844–54.
45. Kira I. Toward an integrative theory of self-identity and identity stressors and traumas and their mental health dynamics. Psychology. 2019; 10(4): 385.
46. Tomar N. Mental Health Nursing: Healing Minds, Changing Lives. New Delhi: Jaypee Brothers Medical Publishers; 2022.
47. Sassen B. Nursing and recovery approach. In: Improving Person-Centered Innovation of Nursing Care: Leadership for Change. Singapore: Springer; 2023. p. 73–7.
48. Aznar-Huerta A, Cardó Vila G, Vives Abril T, Valera Fernández MR, Leyva Moral JM, Moreno Poyato AR. Unconditional acceptance in the nurse–patient therapeutic relationship as a whole: an exploratory qualitative study in the context of mental health services. Rev Esp Enferm Salud Ment. 2021; 14: 22–9.
49. Coelho J, Moreno Poyato A, Roldán Merino J, Sequeira C, Sampaio F. Perspectives of adult patients with mental health disorders on the relationship with nurses: a focus group study. BMC Nurs. 2024; 23(1): 9.
50. Tekin Ş. Self-concept through the diagnostic looking glass: narratives and mental disorder. Philos Psychol. 2011; 24(3): 357–80.
51. Yosep I, Hikmat R, Mardhiyah A, Zamroni AH, Pranata Y, Saputra RL. Nursing interventions to reduce mental health problems in nursing students: a scoping review. BMC Nurs. 2025; 24(1): 780.
52. Fincham GW, Strauss C, Montero-Marin J, Cavanagh K. Effect of breathwork on stress and mental health: a meta-analysis of randomised controlled trials. Sci Rep. 2023; 13(1): 432.
53. Tavoian D, Craighead DH. Deep breathing exercise at work: potential applications and impact. Front Physiol. 2023; 14: 1–10.