



Published by DiscoverSys

Increasing the quality of life of post-shackling patients through multilevel Health promotion of shackling prevention



CrossMark

Arif Widodo,^{1,2*} Yayi Suryo Prabandari,³ Aris Sudiyanto,⁴ Ibrahim Rahmat⁵

ABSTRACT

Introduction: Shackling still poses a significant obstacle to rehabilitate patient with mental disorder and often resorted by family or community. Shackling could have a negative impact toward patient's mental health and often resorted due to lack of information. Therefore, this study aimed to evaluate the effect of multilevel health promotion to shackling prevention (MHPSP) toward the behavioral component of family/caregivers, neighbors, cadres, and health workers (stakeholders) and also evaluating its effect toward patient's quality of life.

Method: This study uses a quasi experimental method with pre-test and post-test model with repeated measures design. The research subjects were 32 post-shackling patients lived in Sukoharjo Regency and 31 from Klaten Regency as well as. MHPSP was given to 32 caregivers and stakeholders who come from Sukoharjo Regency as a

treatment group and psychoeducation only to 31 caregivers of control group from Klaten Regency. Quality of life measurements were carried out before treatment and four months after giving MHPSP.

Result: The result showed that MHPSP significantly enhance the behavioral component of the family/caregivers as well as neighbors, cadres and health workers ($p < 0.05$). Furthermore, patient quality of life was significantly improved in the treatment group (MHPSP) compared to the control.

Conclusion: It can be concluded that MHPSP could significantly enhance the behavioral aspects of the families, neighbors, and health workers toward post-shackled PMD patients and significantly improved their quality of life. Therefore, MHPSP is needed to be implemented not only to the patient but also to the people that directly interact with them.

Keyword: *Multilevel health promotion, post-shackling patients, behavior, patient's quality of life.*

Cite this Article: Widodo, A., Prabandari, Y.S., Sudiyanto, A., Rahmat, I. 2019. Increasing the quality of life of post-shackling patients through multilevel Health promotion of shackling prevention. *Bali Medical Journal* 8(2): 444-451. DOI:10.15562/bmj.v8i2.1470

¹Student in Doctoral program – Faculty of Medicine Public Health and Nursing – Gadjah Mada University – Yogyakarta – Indonesia

²Lecturer in Nursing Study Program – Health Science Faculty - Muhammadiyah University of Surakarta, Indonesia

³Lecturer in Magister Public Health Program – Faculty of Medicine, Public Health, and Nursing – Gadjah Mada University – Yogyakarta – Indonesia

⁴Lecturer in Medicine Faculty – Sebelas Maret University of Surakarta - Indonesia

⁵Lecturer in School of Nursing, Faculty of Medicine, Public Health, and Nursing – Gadjah Mada University – Yogyakarta – Indonesia.

*Correspondence to: Arif Widodo, Student in Doctoral program, Faculty of Medicine Public Health and Nursing, Gadjah Mada University, Yogyakarta-Indonesia
arif.widodofik@gmail.com

INTRODUCTION

Shackling usually pursued as the last approach to restrain person with mental disorder (PMD) often to prevent any harm to other family members.¹⁻³ Several reasons that commonly found among families or communities of the shackled PMD are the inefficiency of the treatment or deteriorating condition, financial issue regarding treatment cost, and the mental hospital that often located far away from the location of PMD. In addition, difficulties to surveillance the PMD or the tantrum tendency of the PMD are also included as main reasons of the family to resort shackling.⁴

In Indonesia, the prevalence of shackling among PMDs are still considerably high which often resorted by family or community members. On the other hand, a regulation about mental health has been devised in Mental Health Act No. 18 of 2014 but it is not yet optimally implemented. Furthermore, the law on human rights is also not yet integrated into the policies and procedures. Therefore, the risk of human rights violations is still considerably high especially for vulnerable population such as PMDs.⁵ Although the officials have acknowledged that shackling is a kind of human

rights violation, the government continues to have difficulty in eradicating this practice and many of the cases goes unreported.

According to the World Health Organization (WHO), the quality of life (QoL) is an individual's perception of the position of life in a system of values and culture in which they live, and it is related to their goals, hopes, standards and concerns. Family and community social support are needed to improve their QoL.⁶

The participation of the family as a patient's caregiver is an important area of nursing and mental health promotion is a mandatory education to be given to them. Some studies showed that mental health education in families has a positive impact in reducing recurrent rates of mental disorders.^{7,8} There is also evidence that improvement in community mental health proved to be a superior to the hospital care.⁹ Several studies have shown that community involvement has proven to be more effective in treating the PMD.^{10,11} Therefore, this study aimed to analyze the effect of multilevel health promotion for shackling prevention (MHPSP) toward behavioral components of the

Received: 2018-12-25

Accepted: 2019-01-29

Published: 2019-08-01

families or caregivers and stakeholders as well as its effect toward post-shackling patient's QoL in Sukoharjo District and Klaten Regency, Yogyakarta, Indonesia.

METHODS

Study Design and Sampling

This study used quasi experimental methods with nonequivalent control group and repeated measured pre-test and post-test design.^{16,17} The population of this research was 37 families of post-shackling patients who lived in Sukoharjo District and treated in the RSJD "Dr. Arif Zainudin" Surakarta, and 34 families and post-shackling patients who lived in Klaten District and treated in the RSJD "Dr. RM Soejarwadi" Klaten in 2012-2015. Overall, 32 post-shackling patients and their families from Sukoharjo Regency and 31 post-shackling patients and families from Klaten Regency were included in this study. Sampling was carried out by using purposive sampling technique with inclusion criteria:

- 1 The recorded post-shackling patients in Surakarta and Klaten Mental Hospital who lived in Sukoharjo or Klaten Regency.
- 2 Lived with their family (at least with wife/husband, father, mother, sister, brother and child) as a caregiver.
- 3 Always admitted to outpatient/control in the last three months.
- 4 Willing to be a participant.
- 5 Signed informed consent forms.

Training Program

MHPSP was given twice, first by having private family discussion with question and answer as well as intervention for preventions of relapse, and the second was by using brochures, posters, booklets, and films to promote greater awareness. In the treatment group applied in Sukoharjo Regency for the second intervention, the treatment was a collaborative training between families, and stakeholders where their homes were close to those with PMD. Meanwhile in the control group, the intervention was given only to 31 families/caregivers in Klaten District. The QoL was measured before treatment and 4 months after treatment.

RESULTS

32 caregivers in families of post-shackled patients from Sukoharjo Regency as a treatment group, and 31 caregivers of post-shackled patients from Klaten Regency were involved in this study as

treatment and control group, respectively. Initially, homogeneity test (Levene's Test) were conducted to examined the characteristics of respondents. Table 1 and 2 summarized the result of homogeneity test between the control and treatment group.

According to Table 1, more than half of post-shackling patients were male aged between 20-40 years and mostly had elementary education. Most patients were treated for 5 - 10 years as PMD with more than half of the respondents were shackled for 1-3 years and 3-5 years. The sample baseline characteristics were considered homogeneous because no significant differences were found in comparative analysis between treatment and control group.

At the level of the family/ caregiver, more than half of them are female caregivers aged between 41-65 years and had high school education. Most of them are housewives and the parents of the patients (Table 2). No significant differences were found in the family's baseline characteristics and the variances were considered to be homogeneous.

The Effect of health promotion to behavioral changes of the caregivers

Before conducting a different test, all research data variables were first tested for normality by using the Kolomogorov Smirnov. The results of the data normality test showed that all research data variables were normally distributed. The paired sample t-test was used to assess the difference in average values during pre-test, post-test 1, and post-test 2, while independent t-test was used to assess the average values between the two groups in every observation.

Table 3 shows the results of the statistical tests on the initial observation of all components of family behavior in the two groups. According to the result of the independent t-test on observations at post-test 1 and post-test 2, it appears that almost all components of behavior are homogeneous. The mean values of the behavioral component at post-test 1 and post-test 2 were not different, except at post-test 2 on subjective norms and at post-test 1 as well as at intention of post-test 2. When post-test 1 was tested, the mean subjective norm values of the two groups were different, and when post test 2 was tested, the mean subjective norm values of the treatment group were better than the control group. Furthermore, when the post-test 1 and 2 were compared, the mean value of the intention of the treatment group was better than in the control group.

The effect of the interventions was analyzed twice by using repeated Anova tests. It showed that there were significant differences in the mean values

Table 1 Homogeneity test of post shackling patients baseline characteristics

No	Characteristics	The Groups				N= 63	%	p value	
		Intervention (n = 32)		Control (n = 31)					
		N	%	N	%				
1.	Gender	Man	15	47	18	42	33	52	0.475
		Woman	17	53	13	58	30	48	
2.	Age	a. 20-40 ^y	25	78	17	55	42	67	0.224
		b. 41-65 ^y	5	16	13	42	18	28	
		c. > 65 ^y	2	6	1	3	3	4	
3.	Education	a. no school	3	9	3	10	6	10	0.127
		b. Elementary	16	50	9	29	25	40	
		c. YHS	9	28	7	23	16	25	
		d. SHS	4	13	12	39	16	25	
4.	Length of stay in hospital	a. 1-5 ^y	1	3	4	13	5	8	0.062
		b. 5-10 ^y	12	38	8	26	20	32	
		b. 10-15 ^y	7	22	5	16	12	19	
		d. 15-20 ^y	9	28	7	23	16	25	
		e. 20 ^y	3	9	7	23	10	16	
5.	Length of Shackled Period	a. 0-1 ^y	0	0	2	7	2	3	0.204
		b. 1-3 ^y	10	31	13	42	23	36.5	
		c. 3-5 ^y	13	41	10	32	23	36.5	
		d. 5 ^y	9	28	6	19	15	24	

Source : Data of analysis results

*JHS = Junior high school

** SHS = Senior high school

Table 2 Homogeneity test of patient's family baseline characteristics

No	Characteristics	The Groups				N= 63	%	p value	
		Intervention (n = 32)		Control (n = 31)					
		N	%	N	%				
1.	Gender	Man	3	9	20	64	23	36	0.001
		Woman	29	91	11	36	40	64	
2.	Age	a. 20-40 ^y	6	19	11	36	17	27	0.966
		b. 41-65 ^y	26	81	15	48	41	65	
		c. > 65 ^y	0	0	5	16	5	8	
3.	Education	a. No School	0	0	4	13	4	6	0.257
		b. didn't finish on primary school	0	0	1	3	1	2	
		c. Elementary	6	19	5	16	11	17	
		d. JHS*	6	19	8	26	14	22	
		e. SHS**	18	56	12	39	30	48	
		f. Diploma	2	6	1	3	3	5	

Table 2 Continue

No	Characteristics	The Groups						p value	
		Intervention (n = 32)		Control (n = 31)		N= 63	%		
		N	%	N	%				
4.	Works	a. housewife	17	53	14	45	31	49	0.927
		b. private	7	22	10	32	17	27	
		c farmer	3	9	2	7	5	8	
		d seller	1	3	3	10	4	6	
		e village civil staff	3	9	0	0	3	5	
		f labour	1	3	2	7	3	5	
5.	Patients relatives	a. parents	17	53	10	32	27	43	0.296
		b. Child	3	9	4	13	7	11	
		c. brother/sister	10	31	16	52	26	41	
		d. housband/wife	0	0	1	3	1	2	
		e. brother/sister inlaw	2	6	0	0	2	3	

Source : Data of analysis results

Table 3 The result of the comparison of behavioral components measurements before and after treatment.

Behavioral components	Groups	Pre-test	Post-test 1	Post-test 2	Different test inter-repetead intervention (p)
		The average value & deviation	The average value & deviation	The average value & deviation	
Knowledge	Intervention	16.63±1.45	18.13±2.69	20.03±1.67	0.001
	Control	17.32±3.78	18,03±2.84	19.68±2.22	0.010
Post-hoc p-value		0.335	0.896	0.478	
Attitude	Intervention	59.13±5.19	62.38±4.15	66.78±4.27	0.001
	Control	57.77±6,02	62.06±7.37	65.52±3.83	0.001
Post-hoc p-value		0.343	0.767	0.221	
Behavioral tendencies	Intervention	55.75±6.07	58.72±3.62	58.75±4.02	0.016
	Control	54.42±6.47	59.00±6.83	58.03±5.72	0.014
Post-hoc p-value		0.403	0.838	0.566	
Subjective norms	Intervention	76.56±6.64	80.03±.31	80.31±4.29	0.005
	Control	73.00±8.22	78.58±4.39	76.93±6.42	0.004
Post-hoc p-value		0.063	0.144	0.017	
Self Efficacy	Intervention	77.62±7.01	82.28±7.75	82.84±7.30	0.010
	Control	76.45±11.01	81.97±8.97	82.0±6.36	0.015
Post-hoc p-value		0.615	0.869	0.627	
Intention	Intervention	64.03±5.29	79.50±8.27	82.22±4.18	0.001
	Control	64.52±6.99	73.03±12.51	76.52±13.02	0.001
Post-hoc p-value		0.757	0.018	0.022	
Family social support	Intervention	54.21±7.70	60.90±6.25	62.53±4.76	0.001
	Control	53.13±11.25	58.42±5.63	58.87±6.92	0.013
Post-hoc p-value		0.655	0.114	0.017	

Table 4 Differences in mean values of knowledge, attitudes, and tendencies to behave in patient post-shackling patients before and after intervention

Responden (level stakeholders)	Behavioral components	The average value & deviation			p value (between..and...)		
		Pre-test	Post-test 1	Post-test 2	Pre-test & Post-test 1	Pre-test & Post-test 2	Post-test 1 & Post-test 2
Neighbour	Knowledge	20.12±1.81	20.59±1.66	20.78±1.81	0.001	0.001	0.110
	Attitude	63.03±5.91	65.56±5.15	66.25±5.43	0.001	0.001	0.740
	Behaviour	56.91±8.23	59.37±6.91	59.93±7.52	0.021	0.001	0.110
Cadres	Knowledge	19.22±1.83	20.09±1.69	20.16±1.66	0.001	0.001	0.536
	Attitude	58.75±3.78	61.28±4.64	61.50±5.45	0.001	0.001	0.862
	Behaviour	53.34±5.76	57.72±6.05	60.41±4.47	0.132	0.057	0.800
Health Staff	Knowledge	20.91±1.22	21.81±1.49	21.94±1.36	0.008	0.001	0.536
	Attitude	63.56±5.70	66.44±5.30	67.50±5.04	0.011	0.001	0.164
	Behaviour	59.50±3.69	62.41±4.11	62.96±3.47	0.001	0.001	0.277

Table 5 The average of quality of life scores before and after MHPSP interventions between the treatment and control groups

Group	Quality of Life		Significance between Pre- and Post-test (p)
	Pre-test	Post-test	
	Mean±deviation	Mean±deviation	
Intervention	67.37±13.71	73.87±15.32	0.021
Control	65.26±9.72	66.84±10.14	0.014
Two group comparison (p)	0.481	0.036	

of the behavioral component of caregiver behavior between pre-test, post-test 1, and post-test 2. The average value of the caregiver behavior component between pre-test, post-test 1, and post-test 2 had increased significantly in a better direction. MHPSP helped to increase the behavior component in the treatment and psycho-education groups regarding the mental health in the control group (Table 3).

Effect of health promotion on change in knowledge, attitudes, and behavioral tendencies of stakeholders

There were respondents who represent certain levels in the treatment group, such as the level of neighbors/community leaders, cadre levels, and the level of health workers (stakeholders). The difference in average values of knowledge, attitudes, and behavioral tendencies in stakeholders during pre-test, post-test 1 and post-test 2 can be seen in Table 4.

According to the Table 4, the result can be interpreted as follows:

1. Knowledge, attitudes, and behavioral tendencies of neighbors/community leaders statistically increased between pre-test and post-test 1. The average values of knowledge, attitudes,

and neighboring behavioral tendencies also increased between pre-test and post-test 2. However, no differences were found in knowledge, attitudes, and behavioral tendencies of patient's neighbors between post-test 1 and post-test 2.

2. Knowledge and attitudes of health cadres also increased both between pre-test and post-test 1 and pre-test and post-test 2, but the average value of behavioral trends in pre-test and post-test 1 and in pre-test test and post-test 2 are similar. However, between post-test 1 and post-test 2, no differences were found in the cadres' knowledge, attitudes, and behavior. The average value of knowledge and attitude of health cadres who have home in near to post-shackling patients, were significantly different in pre-test and post-test 1 and in pre-test and post-test 2, but not for knowledge, attitudes, and behavior between post-test 1 and post-test 2.
3. Knowledge and the behavioral tendency of health personnel, such as nurses on duty at the public health care and midwives, increase in both pre-test and post-test 1, and in pre-test and post-test 2. However, there were no differences in knowledge, attitudes, and behavior in

post-test 1 and post-test 2. The average value of knowledge, attitudes, and trends in the behavior of health workers are different in pre-test and post-test 1, no differences were found between post-test 1 and post-test 2.

The effect of MHPSP in the quality of life of post-shackling patients

To evaluate the difference in scores of quality of life between the two groups, the independent samples test was used and the result is depicted in Table 5. According to the result, it appears that the quality of life in the two groups were comparable before intervention. However, after intervention (MHPSP in treatment group and psycho-education in control group), the average of quality of life score was significantly higher in treatment group. To note, all groups had increased quality of life score but the treatment group had significantly higher increase.

DISCUSSION

Shackling still poses significant health and social problem for PMD in Indonesia. Shackling is predicted to be quite high especially in rural areas and tends to be under reported. Close family members or community are often resort shackling to restrain the patients to avoid harming themselves and people around them. The most often reason of resorting shackling is the inability of the families to sought medication due to economic or geographical reasons. The other reason is lack of knowledge on how to manage PMD and how long the drugs will take affects.^{1-4,18}

In our study, MHPSP was given to the family members to improve their knowledge and skill in supporting the therapy of PMD. However, no difference was found in the knowledge of family members in intervention and control groups at post-test 1 and post-test 2. Both groups have knowledge that is statistically the same at post-test 1 and post-test 2. Our findings is in concordances with other studies which stated that psycho-education therapy to family member tend to have intermediary effect in improving families knowledge to treat PMD better.¹⁹ The results of this study are also supported by other studies which explain that family psycho-education therapy increases family knowledge in recognizing problems and how to select proper health services.²¹

The increase of the average value of the family attitudes in the two groups in terms of acceptance, treatment and prevention of recurrence in schizophrenics also affected family beliefs, trusts, and even emotions. These effects were partly due to the shackling free films and the delivery of material

by facilitators which can be directly accessed and copied by respondents and affected their believe and emotion. These belief, trust, and emotion are the basis for forming a better attitude.²¹ The emotional effect of the film was reported because some of the caregivers were break in tears when watching the film and conscience toward previous violence to PMD was the main reason for such response. This finding is supported by Xia et.al, that the psycho-education model in families and schizophrenic patients can gradually increase knowledge, attitudes, and skills of the caregivers to better treat the patients.²²

Health promotion aims to change a person's behavior and lifestyle. The tendency of good family behavior has a function as a social support for sufferers in reducing a person's stress, specialized for schizophrenics. Knowledge, attitudes, and tendencies of family behavior that experience a change towards a better direction after joining MHPSP will have an impact on increasing parenting and family support for post-shackling patients in which it will reduce the recurrence frequency of schizophrenics and decrease the possibility of patients being returned to their shackles. It also enables the improvement of the QoL of patients after shackling.

Increase of awareness about subjective norms is also had a profound effect on treatment outcomes. One of the direct determinants of personal intentions is subjective norms that are related to behavior. Normative beliefs that determine one's subjective norms often state that other people are considered to be important by the individual. Community members tend to be doing those norms independent on their agreement to such norms especially if such behaviors are supported by community leaders, health cadres, and health workers. Ultimately, the adoptions of the norms will improve the behavior of the caregivers or family members toward PMD.²³

The other aspect of the attitude that determine how family and community view the PMD is self-efficacy. Self-efficacy tend to be more prominent in higher educated people but also affected by individual experiences, social persuasion and physiological or emotional state.²⁴ The results of this study demonstrate that MHPSP and psycho-education improved family's self-efficacy regarding the prevention of recurrence and shackling in Sukoharjo and Klaten Districts.

This study also proved that through MHPSP and psycho-education intervention, the intention of the family to humanely treat the PMD was improved. Similiar finding also reported by Artega *et al.* (2018) who examined the effect of health promotion toward family intention toward pregnant women. They found an improvement in family

intention towards pregnant women after getting a health promotion.²⁵

MHPSP and psycho-education also have positive effect in increasing intention in both groups. According to study based on the popular Health Belief Model, intention is the best predictor of behavior. Intention acts as a function of beliefs and other information about a person's tendency to behave, which typically will display certain behaviors. Intention regulates behavior and changes it into actions depending on specific situations and conditions.²⁶

The results of this study also proved that MHPSP could enhance family social support to family members who suffer from mental disorders. Ariani et.al (2014) supports our finding by stating that provision of health education enhances family social support for mental patients.²⁷ Another study conducted by Sakellari (2014) examined the impact of health education on the perceptions of parents about mental disorders. It concluded that the provision of health education proved to influence the change in parents' social support for mental disorders and the severity of the diseases suffered by their children as well as increased the overall quality of life of their children.²⁸

MHPSP also has been proven to have a beneficial effect on improving the quality of life of mental patients after shackling. The results of this study are supported by Ojio *et al.* (2015) who examined the effect of health education on improving mental health in middle school students, who experienced psychological disorders in schools.²⁹ It demonstrated a positive effect on improving the severity of the mental disease of the patients. Another study was conducted by Thomas (2016) and Irannezhad also supported our findings that the health education resulted in significant improvement in mental health compared to pre-test.^{30,31}

CONCLUSION

The conclusion of this study is that MHPSP intervention given both in the treatment and psycho-education group as well as to the families of post-shackling patients, have comparable result in improving the quality of life of post-shackling patients. However, patient's quality of life who received MHPSP is better than the standard psycho-education group.

ACKNOWLEDGMENT

The writers acknowledge the contribution of Indonesia Ministry of Research and Technology in funding the main author educational expenses, the rector of Universitas Muhammadiyah Surakarta for

supporting the education of the main author and the managements of doctoral program of Faculty of Medicine, Public Health, and Nursing – Gadjah Mada University – Yogyakarta – Indonesia as well as Sukoharjo and Klaten district governments for providing a permission for this study in their areas.

CONFLICT OF INTEREST

All authors declared that there is no conflict of interest regarding the publication of this article.

FUNDING

This study is funded by Indonesia Ministry of Research and Technology as part of the educational scholarship received by the main author.

ATHOR CONTRIBUTION

All author contributed equally in writing this articles.

REFENCES

1. Tyas, T.H., Pasung Family experience of dealing with "the deviant" in Bireuen, Nanggroe Aceh Darussalam, Indonesia, *Thesis*, Amsterdam Master's in Medical Anthropology Faculty of Social and Behavioral Science University of Amsterdam, 2008
2. Puteh, I., Marthoenis, M. & Minas, H., Aceh Free Pasung: Releasing the mentally ill from physical restraint. *International Journal of Mental Health Systems*, 2011, 5(1), p.10.
3. Colucci, E. Breaking The Chains, Human Right Violations Againts People with Mental Illness, *Thesis*, Faculty of Humanities, School of Social Science, Granada Center for Visual Anthropology, University of Manchester, 2013
4. Lestari, W. & Wardhani, E., Stigma and Management on People with Severe Mental Disorders with "Pasung" (Physical Restraint). *Pusat Humaniora Kebijakan Kesehatan dan Pemberdayaan Masyarakat*, 2014, pp.157–166.
5. Nurjannah, I. *et al.*, Human rights of the mentally ill in Indonesia. *International Nursing Review*, Available at: [http://onlinelibrary.wiley.com/doi/10.1111/inr.12153/2015;62\(2\):153-161](http://onlinelibrary.wiley.com/doi/10.1111/inr.12153/2015;62(2):153-161).
6. Bobes, J. & A-Portilla, P.G., Quality of life measures in schizophrenia. *European Psychiatry*, 2005; 20 Suppl 3, pp.S313–S317.
7. Sudiyanto, A., Pendidikan Kesehatan Jiwa Keluarga untuk Mencegah Kekambuhan Penderita Gangguan Afektif Berat, *Disertasi*. Universitas Gadjah Mada, Yogyakarta. 1998.
8. Widodo, A., Djumadi, Perbandingan Efektivitas Antara Metode Ceramah Modul, Dengan Ceramah Video Film dalam Memberikan Pendidikan Kesehatan Jiwa Bagi Keluarga Penderita Skizofrenia. *Varidika - FKIP University Muhammadiyah of Surakarta*, ISSN 0852-0976. 2004 Des;2(16):160-167
9. Malone D, Marriott S, Newton-Howes G, Simmonds S, Tyrer P. Community mental health teams (CMHTs) for people with severe mental illnesses and disordered personality. *Cochrane Database of Systematic Reviews* 2007, Issue 3. Art. No.: CD000270. DOI: [10.1002/14651858.CD000270.pub2](https://doi.org/10.1002/14651858.CD000270.pub2).
10. Black, B. & Rose, S. *Advocacy and Empowerment ; Mental Health Care in the Community*, Routledge, USA-Canada, ISBN 02-20320013-16, 2002.

11. Stacciarini, J.-M.R. *et al.*, Review: Community-based participatory research approach to address mental health in minority populations. *Community mental health journal*, 2011 47(5), pp.489–97.
12. Green, L.W., & Kreuter, M.W., . *Health Program Planning : An Educational and Ecological Approach* 4th.ed. ed., New York : Mc Graw Hill. 2005
13. Fertman, C.I. & Allensworth, D.D.,. *Health Promotion Programs : From Thoery to Practice*, ISBN : 978-0-470-24155-4(pbk), San Fransisco: Jossey Bass. USA, A Willy Imprint. 2010
14. Glanz, K., Rimer, B.K. & Viswanath, K.,. *Health Behaviour and Health Education*, fourth edition, ISBN:978-0-7879-9614-7, Published by Jossey-Bass, San Fransisco-USA. 2008
15. Vandiver, V.L., . *Integrating Health Promotion and Mental Health*, ISBN:978-0-19-516772-6, Oxford University Press, USA, 2009.
16. Sugiyono., *Metode Penelitian Kuantitatif Kualitatif dan R&D*, 23th edition, ISBN: 979-8433-64-0, Bandung: Alfa-Beta. 2015
17. Murti, B. *Prinsip dan Metode Riset Epidemiologi I*, Surakarta: Program Studi Ilmu Kesehatan Masyarakat, Program Pascasarjana, Universitas Sebelas Maret. 2016
18. Suharto, B.,. *Budaya Pasung dan Dampak Yuridis-Sosiologis (Studi Tentang Upaya Pelepasan Pasung dan Pencegahannya di Kabupaten Wonogiri)*. *Indonesian Journal on Medical Science*, ISSN: 2443-1249 (Print) 2623-0038 (Online,)vol:1 no 2 - J. Available at: imjsbm.org. 2014
19. Sharif, F., Shaygan, M. & Mani, A.,. Effect of a psycho-educational intervention for family members on caregiver burdens and psychiatric symptoms in patients with schizophrenia in Shiraz, Iran. *BMC Psychiatry*, 12:48, 2012
20. Suerni, T., Keliat, B.A. & C.D, N.H., Penerapan Terapi Kognitif dan Psikoedukasi Keluarga pada Klien Harga Diri Rendah di ruang Yudistira, RSJ “dr.H.Marzoeki Mahdi” Bogor. *Keperawatan Jiwa*, 1(2), 2013 pp.161–169.
21. Azwar S., 2003. *Sikap Manusia Teori dan Pengukurannya*, 15th edition, ISBN : 979-8581-59-8, Jakarta: Rineka Cipta. 2011
22. Xia J, Merinder LB, Belgamwar MR. Psychoeducation for schizophrenia. *Cochrane Database of Systematic Reviews*, Issue 6. Art. No.: CD002831. DOI: [10.1002/14651858.CD002831.pub2](https://doi.org/10.1002/14651858.CD002831.pub2), 2011.
23. Bartholomew, Parcell, Kok, G. *Planning Health Promotion Programs : an Intervention Mapping Approach Planning Health Promotion Programs*, ISBN-13 978-07879-7899-0, Published by Jossey-Bass, San Fransisco-USA., 2006
24. Masraroh, L. Efektivitas bimbingan kelompok Teknik Modeling untuk Meningkatkan Self Efficacy Akademik Siswa: Studi Eksperimen Kuasi di Kelas X Sekolah Menengah Atas Laboratorium Unversitas Pendidikan Indonesia Bandung *Doctoral Dissertation*, Universitas Pendidikan Indonesia. 2012
25. Arteaga, S., Caton, L. & Gomez, A.M.,. Planned, unplanned and in-between: the meaning and context of pregnancy planning for young people. *Contraception*, 99(1), pp.16–21. Available at: <https://doi.org/10.1016/j.contraception.2018.08.012>. 2018
26. Ajzen, I., *Attitudes, Personality and Behavior (Second Edition)*, 2005
27. Ariani, ND. Pengaruh Pendidikan Kesehatan Tentang Gangguan Jiwa Terhadap Dukungan Sosial Pada Keluarga. *Jurnal Keperawatan*. Yogyakarta: Program Studi Ilmu Keperawatan Fakultas Kedokteran Dan Ilmu Kesehatan Universitas Muhammadiyah Yogyakarta. 2014
28. Sakellari, E. Exploring The Impact Of Mental Health Education On Adolescents’ Perceptions About Mental Health And Mental Illness (Improving community health). *Article of Research*. Turkey: Doctoral Programme in Nursing Science. Department of Nursing Science. Faculty of Medicine. University of Turkey. 2014
29. Ojio, Y. Effects of school-based mental health literacy education for secondary school students to be delivered by school teachers: A preliminary study. *Psychiatry and Clinical Neurosciences* 2015; 69: 572–579 doi: [10.1111/pcn.12320](https://doi.org/10.1111/pcn.12320). Department of Physical and Health Education, Secondary School attached to the Faculty of Education, The University of Tokyo, and Department of Psychiatry and Behavioral Science, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan. 2015
30. Thomas, B. Improving the physical health of people with mental health problems: Actions for mental health nurses. *Nursing Article*. Nursing, Midwifery and Allied Health Professions Policy Unit, Quality Division, Strategy and External Relations Directorate 32400. 2016
31. Irannezhad S. Effectiveness of life-skills training on the mental health of 2nd grade female High School students in Bam-Iran. *Bali Medical Journal*. 2017;6(3):583+. doi: [10.15562/bmj.v6i3.635](https://doi.org/10.15562/bmj.v6i3.635). 2017



This work is licensed under a Creative Commons Attribution