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# Psychoeducational Methods for Patients with Schizophrenia: A Literature Review

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#### **Abstract**

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Introduction: Schizophrenia is the most burdensome mental disorder and contribute the greatest cost to the treatment compared to other mental illnesses. Psychoeducation is an effective therapy program for patient with Schizophrenia to promote well-being and improve psychopathological status. This literature review is to describe the contents of psychoeducational interventions and its outcomes on Schizophrenic patients.

**Method:** In this descriptive literature review, PubMed and CINAHL healthcare databases are chosen to search for relevant studies with keywords "psychoeducation" and "schizophrenia". Inclusion and exclusion criteria are set based on the basis of PICO framework. All studies would be scanned to form an extracted table with the key characteristics of the studies. The data would be analysed based on the principle of inductive content analysis and content analysis to answer the research questions.

**Results:** Content analysis made from five research articles were chosen to form. The main contents of interventions include add and correct knowledge, psychological support and skill training. The outcomes of psychoeducation are financial improvements, increase quality of life and psychological enhancements.

**Conclusion**: There are different interventions used in psychoeducation to patients with Schizophrenia combined with antipsychotic medication treatment, with the main aims are to correct and complete their knowledge about the disease, practicing essential skills and improve cognitive condition... It brings more effective outcomes than standard treatment by antipsychotic drugs alone.



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## Abstract

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#### 1 Introduction

Improving self-management of patient is essential in promoting the well-being and decrease the burden of mental health problems. It is significantly important because mental illness is common worldwide. In Finland, sick allowances of mental illnesses increased 93% from 1990 to 2003. The cost for treatment of mental problems has increased remarkably, while Schizophrenia is the greatest burdensome disorder and contributes the most to the cost of treatment among other mental illnesses. As a result, acting to reduce the cost of mental illness in generally and Schizophrenia in particularly is essential (Hätönen, 2010). Nurses play a vital role in education delivery. Nurses must be effective, efficient patient educators because patients need to understand appropriately how to care for themselves to fulfill their self-care needs and outcomes of treatment after discharge. To achieve that role, nurses should be supported, equipped and educated by continuing education program (Sherman, 2016).

Psychoeducation is effective in supporting the daily coping and self-management of patient with mental disorders. In order to perform an effective psychoeducation for psychiatric clinical care, various methods have been evolved, researched and evaluated (Hätönen, 2010). Psychoeducational intervention is a standard therapy program in acute and post-acute phases of patients with Schizophrenia according to guidelines of American Psychiatric Association and German Society for Psychiatry, Psychotherapy and Neurology. It increases the level of treatment compliance, reduce the rate of relapse and improve the psychopathological status (Bäuml et al, 2006).

The purpose of this literature review is to describe the contents of psychoeducational interventions and its outcomes for patient with Schizophrenia.

## 2 Main concepts

## 2.1 Schizophrenia

Schizophrenia is a chronic brain disorder, which includes hallucinations, delusions, difficulties in thinking and concentration. Causes and symptoms of Schizophrenia vary remarkably between individuals. People with Schizophrenic disorders are unable to differentiate what is real or unreal. The psychotic symptoms may be increased by not taking prescribed medicines, alcohol and drug abuse or being involved in stressful situations (American Psychiatric Association, 2017).

There are several main consequences of Schizophrenia on both physical and psychological factors of human-being, which are: mortality, social disability, social stigma, social cost and impact on caregivers. Related to mortality, death and suicide rates of people with Schizophrenia are notable higher than that of people in general population (at least double and 12 times higher respectively). Mortality for cardiovascular diseases increases because of antipsychotic drugs, unhealthy life-style and restricted access to healthcare services. In Schizophrenia, social disability can be affected in various areas such as selfcare, occupational performances, social connections (with spouse, family members, friends) and social activities (leisure, interaction within community). Social stigma on Schizophrenia patient is shown in multiple ways (discrimination, increased mistreatment, reduced chance to marriage), which affects patient's personality and harm the sense of self. The person with Schizophrenia may feel restricted to get treatment because of the fear of being labelled as mental disorder. Schizophrenia patient also brings distress to relatives or caregivers because of economic burden, emotional reactions (guilt, fear of the future), stress of coping with disturbing behavior or awkward interpersonal behavior (WHO, 1998).

However, Schizophrenia is a treatable disease. There are different approaches to care for Schizophrenia patient, which require a team with particular competent healthcare professionals such as psychiatrist, pharmacist, social workers, occupational therapist and specialized mental health nurses. Treatment for Schizophrenia includes antipsychotics recommended as initial treatment, which are used to block the chemical effect of dopamine in brain to reduce anxiousness, aggressiveness, hallucinations and delusions; psychological treatment (cognitive behavioral therapy, family therapy, arts therapy) (National Health Service, 2016).

#### 2.2 Psychoeducation

The term "psychoeducation" first was noted in the article "Psychotherapy and re-education" written by John E. Doley in The Journal of Abnormal Psychology, published in 1911.

It had not been used until 30 years after that by Brian E. Tomlinson in the book "The psychoeducational clinic". The development of psychoeducation into its current popularization is attributed to an American researcher C. M. Anderson in 1980 in the context of treatment of Schizophrenia (Wikipedia, 2018).

Regarding to psychiatric patients, the term "psychoeducation" is used instead of "patient education". The goal of "patient education" used to influence behaviour change by asking patients enormous changes in life to prevent diseases and promote health, for example, diabetic patients are asked to lose or maintain weight, control the intake of fat and cholesterol, self-monitoring of blood glucose by insulin injection and regularly exercise. While "psychoeducation" usually used to describe the behavioural therapeutic concept for patients with serious mental illness, which includes 4 elements: 1) briefing patient about their illness, 2) problem solving training, 3) communication training, 4) self-assertiveness training. The main point of psychoeducational interventions is to support patient in maintaining their health and coping with their illness. The goal of it is to help patient to gain essential knowledge related to their health condition through gradual learning process (Hätönen, 2010). By receiving psychoeducation, patients should be empowered to understand and accept their illness and cope with it effectivey. Toward all of the patients with Schizophrenia and their families, psychoeducation should be made valid and accessible in the form of an obligatory exercise program (Bäuml, 2006).

## 3 Purpose, Aim, Research Questions

The purpose of this descriptive literature review was to describe the interventions and its outcomes in psychoeducation towards Schizophrenia patients, while the aim is applying the effective methods in clinical nursing.

The research questions are:

- 1. What were the contents of interventions used in psychoeducation for patients with Schizophrenia?
- 2. What were the outcomes of psychoeducation for patients with Schizophrenia?

#### 4 Method

This research uses a descriptive literature review, which is one of the four methods used to conduct a literature review. It focuses on revealing an interpretable pattern from existing literature. Descriptive review is a systematic procedure including comprehensive literature search to collect relevant papers, filtering and identify patterns and trends among papers (Yang et al, 2012). Descriptive review has remarkable advantages such as effective to analyse non-quantified topics or issues, has opportunities to integrate qualitative and quantitative methods of data collection, less time-consuming than quantitative research and has possibility to observe the phenomenon in natural and stable environments (Research Methodology).

#### 4.1 Data Collection

## 4.1.1 Search Strategy

The search strategy was choosing reliable healthcare databases to search for information: CINAHL, PubMED. The limited targets were: "psychoeducation", "schizophrenia". Time was limited from 2010 to 2018. Language of literature is English.

#### 4.1.2 Inclusion and Exclusion Criteria

Inclusion and exclusion criteria are used to set the boundaries for literature review. In this research, the basis of PICO framework is used to determine whether specific literature could be included (Table 1). To be comprised, literature must have quantitative or qualitative studies about any types of psychoeducation applied on patients with Schizophrenia or both of patients and their significant others; studies can have comparison between psychoeducation with standard, other education methods or no comparison at all. The research must be reviewed by peers or experts. Literature, which is not fulfilled these aspects, would be excluded.

Table 1. Inclusion Criteria

Patient or problems to be addressed	Adult patients with Schizophrenic disorder or patients and their significant others
Inventions, treatments or tests to be considered	Any types of psychoeducation

Control or comparison intervention treatments	Standard or other education method or no comparison at all		
Outcome of interest	Any outcomes		
Study	Quantitative and qualitative studies		
P: Publication	Peer-reviewed/expert-reviewed original research publication		

## 4.1.3 Selection Process

The selection process of literature is described in Figure 1. The inclusion and exclusion criteria are applied in selection process. After the keywords and limitations have been put into electronic database, the total number of literature found is 70. After the titles of literature have been scanned and unrelated titles are found and excluded, the number has reduced significantly to 15. Then, the abstract of the literature would be read whether it includes inclusion criteria, 10 literatures selected on the basis of abstract. Finally, the full-text of literature would be scanned whether it complies with the inclusion criteria, validity appraisal and ethical considerations. The literature satisfies these factors are 5.

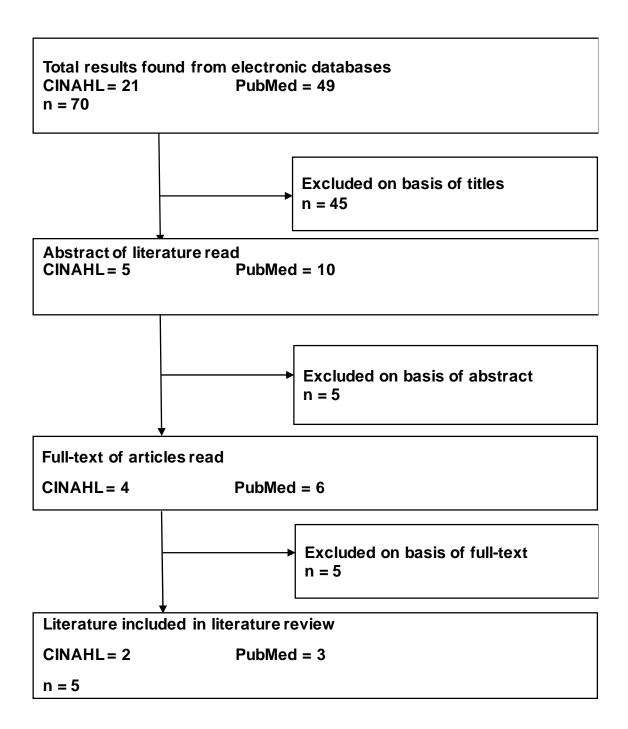


Figure 1. Selection Process. The abbreviation "n" represents the "total number" of the literature for each phase of process.

## 4.1.4 Data Extraction

After the selection process has been done, the summary table can be used to sum up the key characteristics of the research method used in selected literature. The table contains headings with author's names, types of study, study setting, study purpose and conclusion to conclude the key findings (Appendix 1). This could make the review process easily to handle and avoid mistakes and confusions. After selection process, there are only 5 studies fulfilling the inclusion criteria.

Appendix 1 is the summarization of the contents from 5 studies.

## 4.2 Data Analysis

The principle of inductive content analysis is applied in the analysis process. In inductive content analysis, the particular selected data are collected, observed, interpreted and combined to create a new common pattern or theory (Elo et al, 2007).

Table 2 (Appendix 1) is investigated to find main points from all of the selected literature for eliciting the patterns and answer the research questions. Table 3 contains units which represent the main points of particular sections.

Table 3. Representative units of particular sections.

Authors/Date	Interven-	Characteristic of intervention	Outcomes
	tion in psy-		
	choeduca-		
	tion		
von Maffei et	"Films"	"educate" about "symptoms", "di-	"positive effect" in
al (2015)		agnosis", "causes", warning	"knowledge", "com-
		signs", "treatment", "influence of	pliance", "insight";
		family and friend"	"cost-saving",
			"time-efficient"
Chien, W. &	"Mindful-	"orientation", "facilitates empow-	"promising ap-
Thompson,	ness-	erment", "meditation", "focused	proach", "significant
D. (2014)	based"	awareness", "schizophrenia	greater improve-
		care", "dealing with symptoms",	ments" in "enhance
		"problem-solving practices", "re-	positive thoughts",
		lapse prevention strategies",	"relieve guilty feel-
		"community support resources,	ings"
		"future plans"	

Uchino et al	"vide-	"correcting inaccurate ideas"	"increase
(2012)	otapes"		knowledge", "re-
			duce self-stigma"
lvezić et al	"group dis-	"restoring hope", "interpersonal	"decrease self-
(2017)	cussion"	learning", "lectures" about "symp-	stigma", "positive
		toms", "treatment", "relapse pre-	trend in empower-
		vention plan", "stigma-stereotype	ment"
		awareness", "coping with stigma	
		and discrimination"	
Hasan et al	"booklet" &	"symptom", "treatment", "im-	"more effective",
(2015)	"follow-up	portance of family support", "un-	"improve patient's
	phone	derstanding of antipsychotics and	knowledge and
	calls" for	medication compliances", "re-	psychological out-
	"patients	lapse signs recognition"	comes", "positive
	and care-		impact on health
	givers"		and wellbeing", "en-
			hanced confidence"

Analysis process starts from interpreting the units. The units in "characteristics of intervention" section would be interpreted to compress into different categories. For example, in the psychoeducation using films (von Maffei et al, 2015) and videotapes (Uchino et al, 2012) as intervention, the units are "educate" about "symptoms", "diagnosis", "causes", "warning signs", "treatment", "influence of family and friend", "correcting inaccurate ideas", which belong to the nature of Schizophrenia. Therefore, the category for it could be "add and correct knowledge". Similarly, other units as "facilitates empowerment", "focused awareness", "awareness exercises", "stigma-stereotype awareness" would be interpreted to compress into "psychological support" category; and "dealing with symptoms", "problem-solving practice", "coping with stigma and discrimination", "relapse sign's recognition" are compressed into "skill training" category. Figure 2 would show the contents of interventional methods used in psychoeducation.

Regards to "outcome" section, there are units with approximately alike feature, for example "positive effect in knowledge" and "increase knowledge", thus either of it can represent for the other. This analysis process is performed also for the rest of other units to avoid repeating features. The units are interpreted and compressed into different categories, because "positive effect" in "knowledge", "insight", "reduce self-stigma", "enhance positive thoughts" and "relieve guilty feelings" belongs to "psychological enhancements"; while "increase treatment compliance", "cost-saving", "time-efficient" belong to "financial improvements"; and "positive trend in empowerment", "positive impacts in health and well-being" belong to "increase quality of life".

#### 5 Result

There were several interventions, which could be applied in psychoeducation: films (von Maffei et al, 2015) and videotapes (Uchino et al, 2012), group discussion (Ivezić et al, 2017), booklet with follow-up phone call (Hasan et al, 2015) and mindfulness-based practice (Chien & Thompson, 2014). All of these psychoeducational methods were used in combination with psychotic medications.

The method using films, which were produced by professional company, watched by patient on average three time per weeks (von Maffei et al, 2015). Likewise, by watching videotapes about happy Schizophrenic patient, inaccurate ideas about disease and patient's view about relation between Schizophrenia and criminal and violation were corrected, self-stigma related to disease might be decreased (Uchino et al, 2012).

In discussion group method, patients discussed about illness, cognitive techniques and psychodynamic approach to deal the emotional reaction and stigma; patients also disclosed personal experiences (Ivezić et al, 2017).

The method using informative booklets about Schizophrenia, which were sent to patient's home and patient will receive follow-up phone call from healthcare personnel to assure that they understood the contents of booklets (Hasan et al, 2015).

In mindfulness-based psychoeducation, patients practiced meditation, focused awareness, mindful breathing and walking. Additionally, they were motivated to establish self-

empowerment to deal with distressing and negative feelings; to accept their illness; to control their psychotic symptoms and to engage actively in treatment plan (Chien & Thompson, 2014).

## 5.1 Content of psychoeducational interventions

Base on analysis, a graph was constructed with the contents of psychoeducation were formed from three main categories: add and correct knowledge, psychological support and skill training (Figure 2).

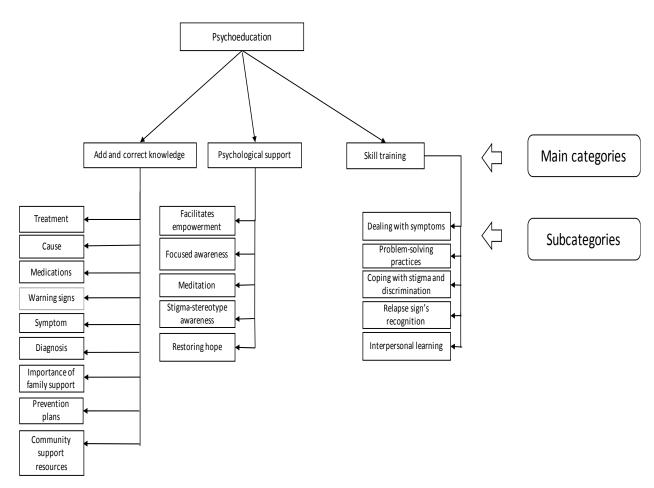


Figure 2. Characteristics of interventions used in psychoeducation

By add and correct knowledge, patient would have more accurate knowledge about Schizophrenic disorder's treatment, causes, warning signs, symptoms, diagnosis, importance of family support, collapse prevention plan and community support resources (von Maffei, 2015). Healthcare professionals could educate patients by using lectures by experts (Ivezić et al, 2017), films (von Maffei et al, 2015), videotapes (Uchino et al, 2012) and group discussion, where patients were unable ask questions and get right answers by experts (Ivezić et al, 2017).

Patients might receive *psychological support* by practicing focused awareness of body sensations, thoughts, feelings; mindful walking; medications by learning how to control breaths; and yoga. The patients could be encouraged by emphasizing the possibility of their recovery, so that patient can restore hope about improvement (Ivezić et al, 2017). Awareness of stigma-stereotype and empowerment are facilitated by selecting self-empowering and constructive perspectives for dealing with stressful or negative thoughts and feelings. For example, by writing daily dairy (Chien & Thompson, 2014) or analysing the published report by National Police Agency to see that there was no relation between Schizophrenia and violence/criminal activities (Uchino et al, 2012).

Besides, patients could receive *skill training* about dealing with symptoms by meeting former patients to hear about their experiences in managing illness; problem-solving skills by discussion and role play; coping with stigma and discrimination by social skill training; recognising relapse signs and communication skills (Ivezić et al, 2017).

## 5.2 Outcomes of psychoeducational methods

Based on the analysis of the data, the main categories of outcomes would be: psychological enhancements, financial improvements and increase quality of life (Figure 3).

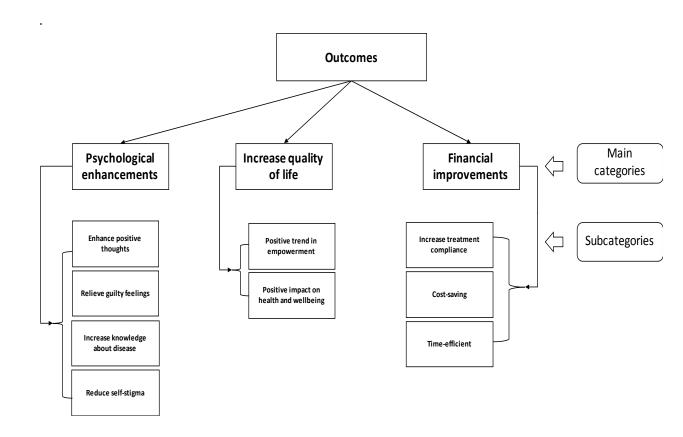


Figure 3. Outcomes of psychoeducational intervention

Studies showed that psychoeducational intervention's outcomes are psychological enhancements, financial improvements and increase quality of life. *Psychological enhancements* indicated in increased patient's knowledge about disease, reduced self-stigma and guilty feelings (Uchino et al, 2012), instead, positive thoughts were enhanced (Chien & Thompson, 2014). They also showed the improvement in self-empowerment and positive impacts in health and wellbeing, which *increase quality of life* (Hasan et al, 2015). Moreover, *financial improvement* is demonstrated through patient's positive outcomes and satisfaction with psychoeducational interventions help saving time and cost for treatment, especially by increasing treatment compliance/adherence, the relapse and hospitalization rate would be reduced and this could lessen the treatment cost for both patient's family and social welfare system (von Maffei et al, 2015).

#### 6 Discussion

#### 6.1 Discussion of the results

The discussion section would be constructed by the statement of the result, strength and limitations of this study, discussion of the result and recommendation and implications for practice (Aveyard, 2014).

The main findings of this literature review are the collection of feasible interventions used in psychoeducation with the aims is supporting psychological condition of Schizophrenic patients (add and correct knowledge, psychological support and skill training); and indicate its outcome on patient's condition with financial improvements, increase quality of life and psychological enhancements.

The result of this review has a significant meaning in nursing professional practice. As mentioned in the introduction section, clinical nurses should be effective, efficient educators, thus the evidence-based knowledge about the interventional methods used in education and its outcomes on patient's condition are absolutely crucial and necessary. Psychoeducation include 4 elements: 1) briefing patients about their illness, 2) problem solving training, 3) communication training, 4) self-assertiveness training (Hätönen, 2010). Briefing patients about their illness can be accomplished by add and correct knowledge about the nature of Schizophrenia, for example, by using films, video tapes or sending informative booklets. Problem solving training can be learned, for instance, by meeting with former patients with Schizophrenia to hear about their experiences in managing illness and performing role play. Patients may practice communication training by participating in group discussion and disclose their experiences. Patients are able to improve self-assertiveness by receiving psychological support to facilitate self-empowerments and restore hope as well as become aware of stigma-stereotype. Through this review, the interventional methods with the same contents could be applied in professional practice in the future. In other words, it is possible that the psychoeducation programme performed to patients in clinical practices can have all of those contents, which satisfy 4 elements of psychoeducation. For instance, nurses can use film or videotapes combined with group discussion or mindfulness-based practice. The suitable interventions should be set depending on the need or physical and psychological condition of patients.

#### 6.2 Validity

This descriptive literature review includes selected literature examined by peer and expert from reliable databases. Published times are significantly new, the selection process is conducted thoroughly by applying inclusion and exclusion criteria, the papers are scanned carefully to extract information, validity criteria and ethical issue are considered properly. Additionally, the selected literature in this descriptive review is established systematically, which have: a research question, a method section, a result section and a discussion and conclusion, as well as abstract and summary. The research questions are not similar to that of other literature. However, this review still has several limitations because as a novice researcher, the approach to the identification, analysis and bringing the studies together might not be rigorous as much as that of experienced researchers; time for performing is limited and financial situation does not allow to retrieve more literature, which requests payment.

Study methods in the selected literature of this review are valid, which are naturalistic study and methods of quantitative research (randomised-controlled trial, quasi-experimental pre-post design). Studies are set with wider sample, sample is representative, appropriate data collection and data are analysed statistically (Aveyard, 2014).

#### 6.3 Ethical issue

This review is following the Responsible Conduct of Research (RCR) guideline set by Finnish Advisory Board on Research Integrity (TENK) to be ethically acceptable. Presenting of this review and evaluating the research results are undertaken with integrity, meticulousness and accuracy; method used in collecting and evaluating data is descriptive literature review, which complies with scientific criteria. Other researcher' work and achievement are respected by citing their publication appropriately and giving their achievement the credits; planning, conducting research and reporting research results follow the standard of scientific knowledge; there are no financial issues, conflicts of interest to members of research project.

#### 7 Conclusion

By literature review, the psychoeducational interventions used for Schizophrenic patients, which have the main goals of contents are add and correct knowledge, psychological support and skill training. The outcomes of psychoeducational interventions combined with antipsychotics are more effective in improving patient's quality of life, financial issues and psychological status than standard treatment with antipsychotics alone.

However, more specific details of contents of psychoeducational methods should be showed, so that the practical probability of the methods could be assessed. In conclusion, to help Schizophrenic patients reach positive outcomes of healthcare treatment, the psychoeducational intervention programme should be performed along with antipsychotic medication. The performance of psychoeducational methods must be structured, comprehensive and approved by trustworthy and well-founded organization.

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## Appendices

# Appendix 1:

Table 2. Summarization of selected literature

Authors/Year	Time	Study type	Study setting	Study purpose	Main findings/Conclusion
	range				
von Maffei et	150	Pilot study	Six films (around 17-minute length)	Investigate the feasibility	Using film to educate patients
al (2015)	days	using a	about symptoms, diagnosis, causes,	of short, time- and cost-ef-	about Schizophrenia and Schizoaf-
		quasi-ex-	warning signs, treatments of schizo-	ficient tools for psychoedu-	fective disorder is a cost-saving
		perimental	phrenia and about influence of family	cation. Measure the pa-	and time-efficient approach, which
		pre-post	and friend are shown to 113 partici-	tient's knowledge about	were well received by the vast ma-
		design	pants from a psychiatric hospital in	their illness before and af-	jority of participants. Positive ef-
			Germany with schizophrenia disor-	ter intervention. Measure	fects were shown on knowledge,
			ders in the presence of nursing staff	the duration of compli-	compliance, insight into illness and
				ance, readmissions, side-	quality of life.
				effects, quality of life after	
				intervention	
Chien, W. &	2 years	A multisite	Total number of 107 out-patients with	To measure psychiatric	Mind-fullness based psychoeduca-
Thompson, D.		randomised	Schizophrenia from three out-patient	symptom severity, psycho-	tion appears to be a promising ap-
(2014)		controlled	clinics in Hong Kong. 36 patients re-	social functioning, social	proach to treatment for patient with
		trial	ceive 6-month mindfulness based	support, insight into ill-	Schizophrenia because of signifi-
			psychoeducation, 35 patients receive	ness/treatment, frequency	

			6-month conventional psychoeduca-	and duration of readmis-	cant greater improvements are re-
			tion and 35 patients receive routine	sions to hospitals	ported in psychiatric symptoms,
			care alone.		psychosocial functioning com-
					pared to other psychoeducation
					programs.
Uchino et al	6	Random-	Fifty-six (n=56) out-patients with	To correct comment and	Increasing knowledge about Schiz-
(2012)	weeks	ised Con-	Schizophrenia and Schizoaffective	inaccurate ideas of pa-	ophrenia and its treatment might
		trolled Trial	disorder are chosen. 29 patients at-	tients about Schizophrenia	play an important role in reducing
			tend the psychoeducation program	and to correct the patient's	self-stigma associated with this
			and 27 patients receive standard care	view about correlation be-	disease.
			without psychoeducation. The group	tween Schizophrenia and	
			receives education by watching a TV	criminal activities.	
			news about the life of young happy		
			girl with Schizophrenia		
lvezić et al	Over 3	Naturalistic	80 patients with Schizophrenia are di-	To test the effect of psy-	Group psychoeducation did not in-
(2017)	months	study	vided into 2 group (control group and	choeducational interven-	fluence the perception of discrimi-
			experimental group). The experi-	tion on self-stigma, em-	nation but it decreases the level of
			mental group receives 12 sessions of	powerment and perceived	self-stigma and shows a positive
			psychoeducation. Both groups re-	discrimination	trend in empowerment to all partic-
			ceive also standard treatment. Psy-		ipants.
			choeducation programme stimulates		

				discussion about various topics as bi-		
				opsychosocial model, stress-vulnera-		
				bility theory, symptoms, treatment, re-		
				lapse prevention plan, stigma-stereo-		
				type awareness, coping with stigma		
				and discrimination, etc		
Hasan	et al	12	Random-	121 dyads of patients with Schizo-	To compare the result of	Psychoeducation combined with
(2015)		months	ised con-	phrenia or schizophrenic disorder	usual treatment with usual	usual treatment are more effective
			trolled trial	with their caregivers participating in	treatment combined with	than usual treatment alone at im-
				usual treatment combined with 12-	psychoeducation interven-	proving participant's knowledge
				week psychoeducation intervention	tion toward patient and	and psychological outcomes
				programme, which includes six book-	their primary caregivers	
				lets with follow-up phone calls to en-		
				sure that they read and understand		
				the booklets. The goal of the psy-		
				choeducation includes: understand-		
				ing the nature, symptoms, causes,		
				the importance of family supports to		
				patients; moreover, to improve the		
				understanding of antipsychotic medi-		
				cations and medication compliance,		
				to review relapse signs so that it can		

	be recognised in time, etc The out-	
	come related to knowledge, relapse	
	rate, hospitalization of patients; and	
	burden of care and quality of life to	
	primary caregivers are measured and	
	compared with that of people receiv-	
	ing usual treatment only.	