A Systematic Review on Problem-Solving Training for Community Schizophrenia Patients

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Background and purpose

Problem-solving skill training is an important therapy to promote the psychological functioning for schizophrenia patients, and it affects the ability of the patient to live independently in society as well. In recent years, a number of studies emphasis has been placed on the problem-solving skill of schizophrenia patients. However, inconsistency is still present with regards to the result of using such therapeutic training on schizophrenia patients. Moreover, for fit the cognitive function impairment of schizophrenia patients, the design of these problem-solving interventions comes with various new concepts and features. Nevertheless, there is limited integrated literature pertaining to the problem-solving intervention's design and methodology used for the treatment of community schizophrenia patients, and needless to say on the results of these interventions. Therefore, this study aims to fill the insufficiency by conducting a systematic review on the following: 1. Analysis current design and methodology of problem-solving therapy used for community schizophrenia patients. 2. Analysis the results of problem-solving training used for community schizophrenia patients.

Method

The CHINAHL, MEDLINE, PUBMED, COCHRANE and the Index to the Taiwan Periodical Literature System (from 1984 to June 2014) were searched using the terms "schizophrenia Ti/AB" and "problem solving Ti/AB or problem-solving Ti/AB" and "intervention Ti/AB or training Ti/AB or program Ti/AB. " Some articles were selected and analyzed separately by two co-authors.

We assessed the methodological quality of included trials using the SUMARI(Joanna Briggs Institute, 2012)。Criteria of inclusion literature: (1) Randomized clinical trials, (2) intervention focus on problem-solving, (3) diagnosis of schizophrenia (DSM—IV or DSM—IV TR). (4) language(English or Chinese). Exclusion Criteria: (1) treatments exclusively pharmacological, (2) interventions carried out in inpatient settings, (3) Combined substance use. (4) not intervention study

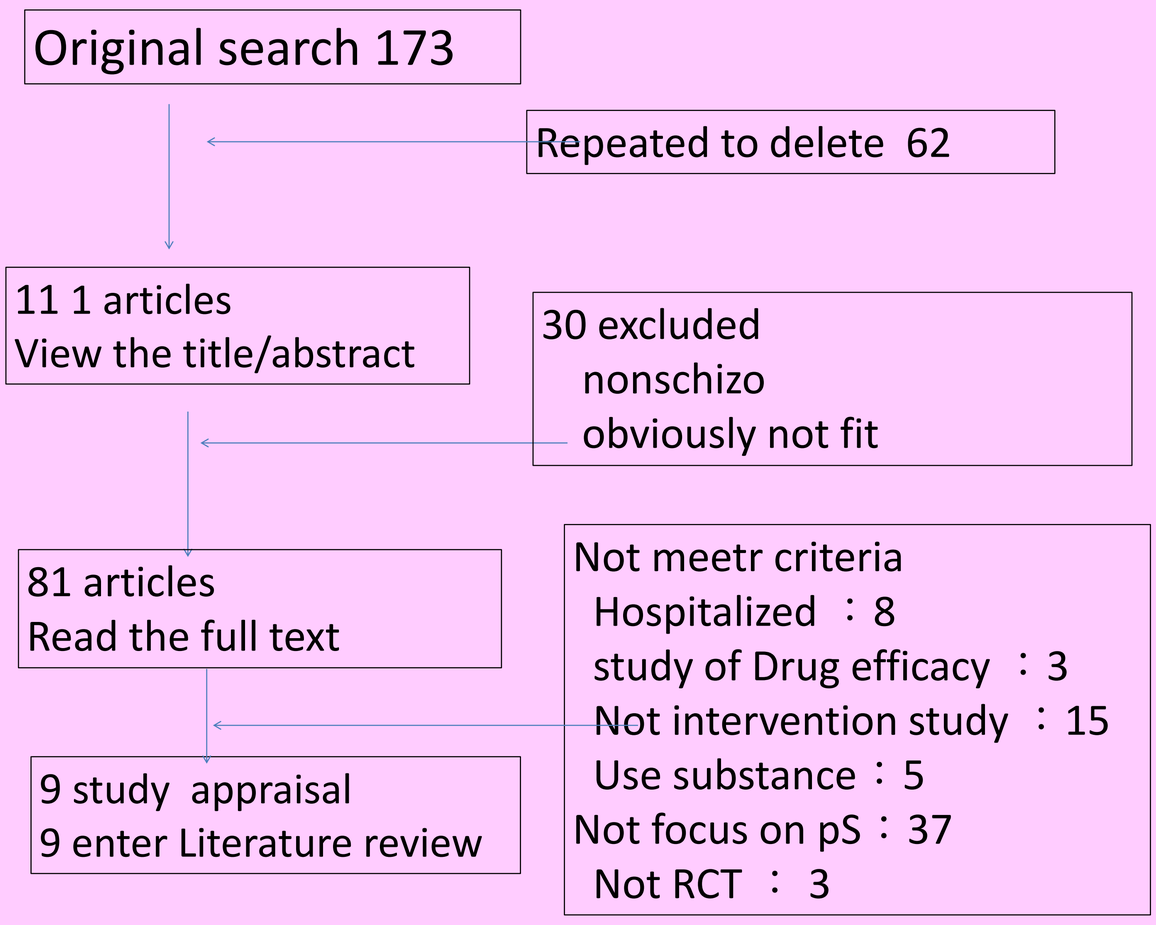

Figure1 ： Flow diagram of selection processes o f articles

Table1 Summary of the studies included in the li terature review

Authors/years	Hours of treatment(Total)	Total Nnumber	score of JBI SUMARI
Leshner et al.(2013)	6hrs	60	9
Twamley et al.(2012)	24hrs	51	9
Farreny et al.(2012)	32hrs	62	9
Rodewald et al.(2011)	6.75hrs	77	7
Veltro et al.(2011)	30-36hrs	24	8
Mazza et al.(2010)	20hrs	33	6
Ucok et al.(2006)	6hrs	63	6
Kern et al.(2005)	6hrs	60	9
Beebe and Tian(2004)	6times	20	7

Results

A total of 9 articles were eligible after screening. The patients were mainly from the day hospital and psychological health care centers. The scope of the problem solving training were mainly with regards to social skills training in the early years, and it has been expand to the problems solving with daily lives, symptoms, emotions and etc., in recent years. Virtual scenarios were stimulated in laboratories to mimic real live events for practical training. The training methods involved theoretical lessons; moreover, it has evolved to basic cognitive functional trainings in recent years. The total training time, duration and frequency various drastically according to the complexity of the task, and most sessions lasted 60 or 90 minutes. The major indicators to demonstrate the outcomes of problem solving training were problem-solving skill, social functions, psychological symptoms, and cognitive functions. With regards to the evaluation of the result, the AIPSS chart was used to evaluate the problem-solving skill, and the SFS and PSP were used for the evaluation of social functions. With regards to the psychological symptoms, PANSS measure were used in most cases and computer designed measuring tools were used for the evaluation of cognitive functions. In general, schizophrenia patients performed more poorly with respect to the execution and application of problem solving skills. Problem-solving trainings were able to ameliorate negative symptoms but a discrepancy was noted with regards to the social function improvement.

Conclusions

The results of the study can provide evidence-based information to develop the problem solving training for the schizophrenia patients. Enhancing patients' problem solving ability remains as the major focus of the problem-solving training. For patients, by using real-life situation rather than simulated scenarios to practice problem solving skills. In addition, studies result shown that the training can decrease the negative psychiatric symptoms, but the different studies shown that the training effect on social functions in discrepancy.

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